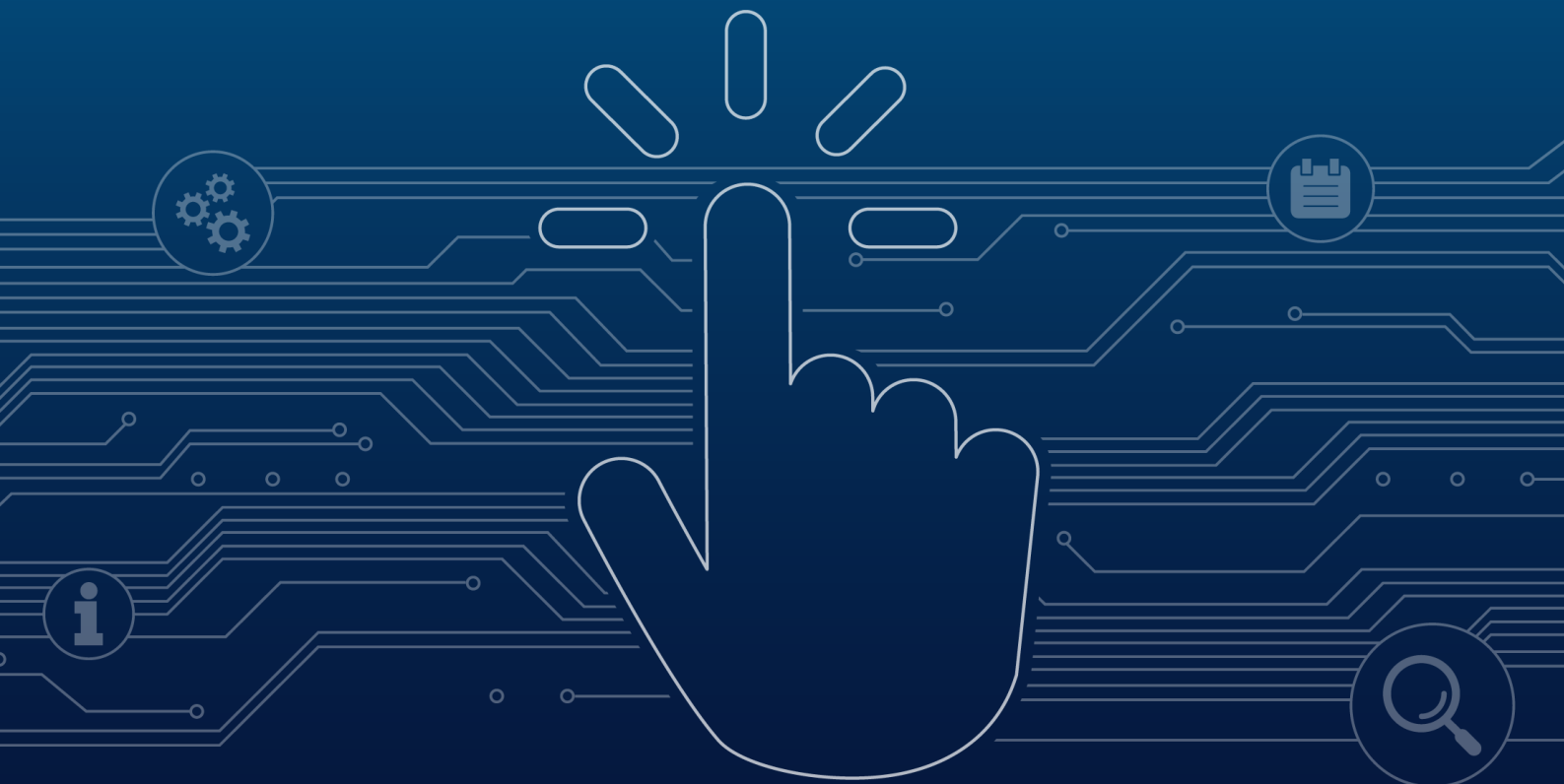


PRTG Manual

Comprehensive IT monitoring



[PRTG Manual](#)

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Printed: May 2021 in Nuremberg

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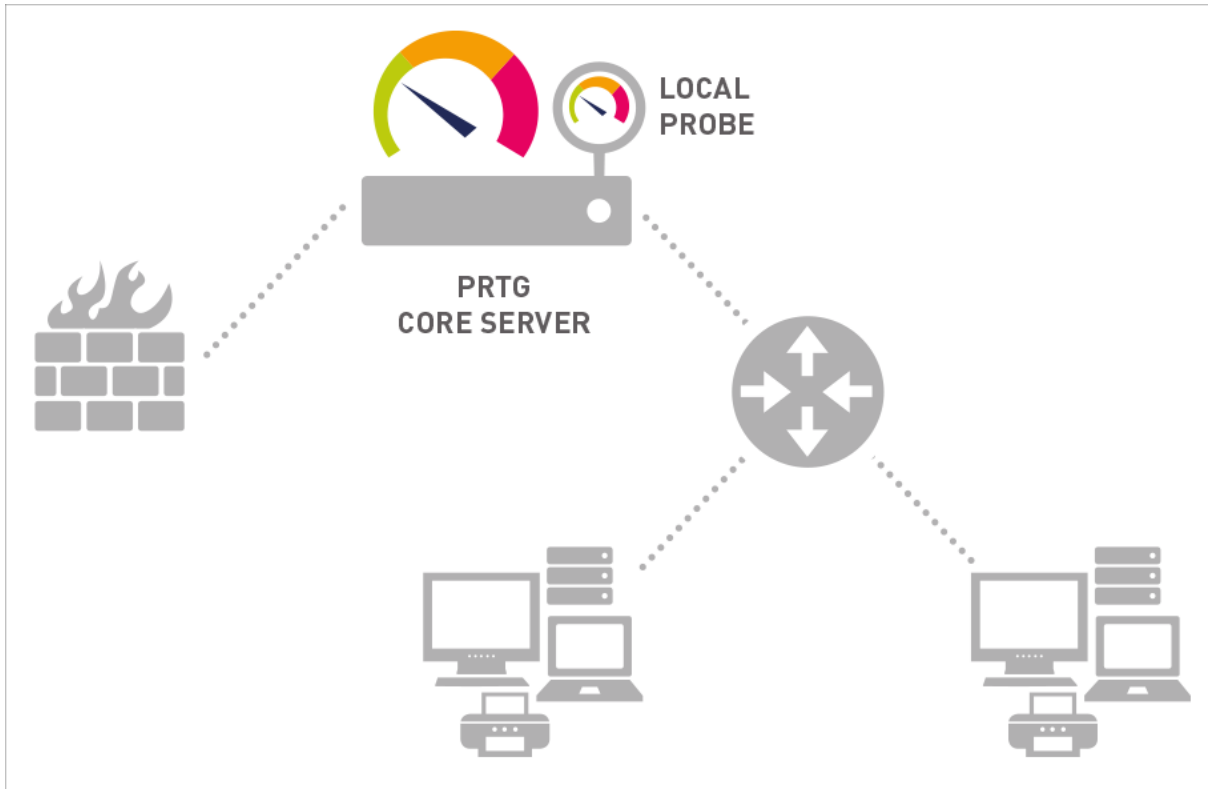
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Part 1

Welcome to PRTG

1 Welcome to PRTG

Welcome to PRTG. You have chosen a software product that comes with a comprehensive set of features to monitor your entire network.



A Standard Installation of PRTG

Why Network Monitoring is Important

Today, nearly every business relies on a computer and network infrastructure for internet, internal management, telephone, and email. A complex set of servers and network equipment is required to ensure that business data flows seamlessly between employees, offices, and customers. The economic success of an organization is tightly connected to a hitch-free flow of data.

That is why your computer network has to work successfully: reliability, speed, and efficiency are crucial. But, like all other technical objects, network devices may fail from time to time and may potentially cause trouble and loss of sales, no matter what migration efforts have been made up front.

You need to take three key steps to maintain network uptime, reliability, and speed:

1. Set up a well-planned network with reliable components.
2. Create recovery plans for the event of device failure.
3. Monitor the network to get informed about failures when they (are about to) occur.







Monitoring Networks with PRTG

PRTG is a comprehensive network monitoring application for Windows-based systems. It is suitable for networks of all sizes and capable of LAN, WAN, WLAN, and VPN monitoring. You can also monitor physical or virtual web, mail, and file servers, Linux systems, Windows clients, routers, and much more.

PRTG monitors network availability and bandwidth usage, as well as various other network parameters such as quality of service, memory load, and CPU usage, even on remote machines. PRTG provides system administrators with live readings and periodical usage trends to optimize the efficiency, layout, and setup of leased lines, routers, firewalls, servers, and other network components.

The software monitors a network that uses Simple Network Management Protocol (SNMP), Windows Management Instrumentation (WMI), packet sniffer, Cisco NetFlow (as well as IPFIX, sFlow, and jFlow), and many other industry standard protocols. It runs on a Windows-based machine in your network for 24 hours a day. PRTG constantly records the network usage parameters and the availability of network systems. The recorded data is stored in an internal database for later analysis.

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1.1 About this Document

This document introduces you to the system concepts of PRTG Network Monitor and Paessler PRTG Enterprise Monitor (hereinafter referred to as **PRTG**) and explains how to set up the software to achieve the best monitoring results. It shows you how to plan your monitoring setup, how to set up your devices and sensors, dependencies, reports, notifications, maps, user accounts, and how to use a cluster for fail-safe monitoring.

This document is also meant as a reference for all available settings in PRTG. Short contextual help is already provided within the PRTG web interface. In this manual, you often get more detailed help regarding the different options that are available. Whether you use PRTG Hosted Monitor or PRTG on premises, all the information that you need is in this document.

This document does **not** give an in-depth explanation of monitoring protocols and file formats. Also, the use of the application programming interface (API) built into PRTG is only briefly addressed. Whenever possible, hyperlinks to more detailed resources are provided, such as articles in our [Knowledge Base](#).

■ To use PRTG right away, see section [Quick Start Guide](#)^[44]. To learn more about monitoring with PRTG, see section [Introduction: Monitoring with PRTG](#)^[34]. For more detailed instructions, browse the manual content or use the manual search with keywords and choose the section that you want to read.

■ For an overview of the icons and abbreviations that are used in this document, see section [Appendix](#)^[454].

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1.2 Key Features

PRTG offers two options to monitor your network: PRTG on premises and PRTG Hosted Monitor. With PRTG on premises, the PRTG core server and local probe run within your network. PRTG Hosted Monitor is the PRTG cloud solution, where we at Paessler run the PRTG core server and hosted probe for you. The PRTG web interface for monitoring configuration and reviewing monitoring data is the same for both PRTG Hosted Monitor and PRTG on premises.

What is PRTG for?



Monitoring with PRTG

- Monitoring and alerting you about uptimes and downtimes or slow servers
- System health monitoring of your various hardware devices
- Network device monitoring and bandwidth accounting
- Application monitoring
- Monitoring virtual servers

- Service level agreement (SLA) monitoring
- System usage monitoring (for example, CPU load, free memory, or free disk space)
- Database performance and table values monitoring
- Email server monitoring and reviewing various backup solutions
- Monitoring your network's physical environment
- Classifying network traffic by source or destination, as well as content
- Discovering unusual, suspicious, or malicious activity with devices or users
- Measuring Quality of Service (QoS) and Voice over IP (VoIP) parameters
- Cloud monitoring services
- Discovering and evaluating network devices
- Collecting system information for various hardware types
- Finding unexpected relationships between your network components to detect potential security issues and assessing the real usage of your network and hardware
- Fail-safe monitoring with a cluster

What is Included in PRTG?

The PRTG on premises installer or a PRTG Hosted Monitor instance contains everything that is necessary to immediately run your monitoring system.

- High performance: The database system stores raw monitoring results as well as logs, Toplists, and tickets. This outperforms Structured Query Language (SQL) servers for monitoring data. You can distribute high loads among probes. You can also access the database through the PRTG API.
- Minimal [system requirements](#)^[23]: For PRTG on premises, an average PC that is not older than 2 years is sufficient, and a netbook can also monitor over a thousand sensors. PRTG Hosted Monitor requires no hardware for the PRTG core server.
- High security standards: Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connections and web servers, secure ciphers, a personalized user rights management, and much more.
 - For more information, see the Knowledge Base: [What security features does PRTG include?](#)
- An SSL/TLS-secured web server with HTTP and HTTPS support for the PRTG web interface, which works as a Single Page Application (SPA) to avoid time-intensive page reloading.
- An email relay server for automatic email delivery.
- Customizable, personalized alerting:
 - Various notification methods, for example, email, push, SMS text messages, Syslog messages and Simple Network Management Protocol (SNMP) traps, HTTP requests, event logs, Amazon Simple Notification Service (SNS), executing scripts.
 - Multiple ways to trigger notifications, for example, status alerts, limit alerts, threshold alerts, multiple condition alerts, escalation alerts.
 - Gradual dependencies to avoid alarm floods, acknowledging certain alarms to avoid further notifications for this alarm, and alert scheduling.
- In-depth report generator to create reports on demand or scheduled reports in HTML, as .pdf file, .csv or .xml data files. Several report templates are available by default.

- Graphics engine for user-friendly live graphs and historic data graphs.
- Network analysis modules to automatically discover network devices and sensors.
- Distributed monitoring to monitor several networks in different locations.
- Special features for managed service providers (MSP) to monitor customer networks and increase the quality of service.
- Data publishing with real-time dashboards (private and public maps) including live performance and status information. You can design these dashboards with many different objects and you can integrate external objects as well.
- Multiple languages such as English, German, Spanish, French, Portuguese, Dutch, Japanese, Russian, and Simplified Chinese.
- Customization: The PRTG API lets you develop your own features. Additionally, you can create custom sensors, notifications, and device templates according to your specific requirements.

PRTG supports monitoring up to several thousand sensors per installation, depending on various parameters. It can optionally work with remote probes to monitor multiple sites or network segments from one central core installation, and to distribute high monitoring loads. You can also configure fail-safe monitoring with a cluster to perform automatic failovers.

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Welcome to PRTG

- [About this Document](#) ¹⁶
- [Key Features](#) ¹⁷
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- [Introduction: Monitoring with PRTG](#) ³⁴

1.3 New in This Version

The continuous development and rollout of PRTG constantly expands its functionalities. Instead of delivering only a few versions with massive changes in every update each year, PRTG is automatically and continuously enhanced with new features and fixes.

We provide three release channels for PRTG on premises:

- **Stable:** Best tested version for live systems. It is updated about once or twice a month. It is for use on live systems.
- **Preview:** Offers the latest features and fixes and is updated several times a month. Consider this version as "beta", so do not use this version on live systems you depend on.
- **Canary:** Provides nightly builds and is updated very often. It is not extensively tested. Never use it on live systems you depend on.

With the release channels, you can choose from maximum stability, early access to new features, or a mix of both.

☁ PRTG Hosted Monitor does not have release channels. Instead, we roll out the latest Stable version to PRTG Hosted Monitor instances in stages.

■ For an overview of all changes in the different versions, see the [Release notes for the "stable" release channel](#) on our website.

More

■ [PAESSLER WEBSITE](#)

Release notes for the "stable" release channel

- <https://www.paessler.com/prtg/history/stable>

PRTG version history

- <https://www.paessler.com/prtg/history>

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1.4 Available Licenses

Our licenses count by sensors. We define one sensor as one aspect that you monitor on a device.

Three different editions are available.

Freeware Edition

The Freeware Edition is a good solution for starters or for private use:

- Free for personal and commercial use.
- Can monitor up to 100 sensors.
- Supports all available sensors.

If you want to use the Freeware Edition, install the Trial Edition first and get a free trial key. After the trial period has ended, your Trial Edition automatically turns into a Freeware Edition.

☁ This option is not available in PRTG Hosted Monitor.

Trial Edition

The Trial Edition is intended for evaluation purposes:

- Can monitor an unlimited number of sensors.
- Supports all available sensors.
- For PRTG on premises, you have to request the temporary license key from our website. Usually, you see the license details and the key if you click the Free Download button on the [Paessler website](#).
- The trial period of PRTG on premises is limited to 30 days and automatically turns into a Freeware Edition afterward.
- PRTG Hosted Monitor provides a 10-day trial. Afterward, your instance is deleted. Purchase a commercial edition to keep your instance.
- Each PRTG on premises license includes one single failover [cluster](#)^[135] that consists of two cluster nodes. A cluster with two and three failover nodes requires an additional trial license key. A cluster with four failover nodes requires two additional trial license keys.

After the trial period has ended, a PRTG on premises Trial Edition automatically turns into a Freeware Edition that lets you to monitor up to 100 sensors for free.

Commercial Editions

Several licenses that suit the demands of smaller as well as larger customers and organizations are available:

- Can monitor a maximum number of sensors (consider our [recommendations](#)^[28]).
- Supports all available sensors.
- Each PRTG on premises license includes one single failover cluster that consists of two cluster nodes. A cluster with two and three failover nodes requires an additional license of the same size. A cluster with four failover nodes requires two additional licenses of the same size.

■ For more information about available commercial licenses, see the Paessler website: [Pricing](#)

More

■ PAESSLER WEBSITE







Get a free trial key and download PRTG

- <https://www.paessler.com/prtg/download>

Pricing

- <https://www.paessler.com/prtg/pricing>

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1.5 System Requirements

There are different aspects that you need to consider regarding the system requirements for PRTG. Meet these requirements to avoid issues while you monitor your network.

In this section:

- [Basic System Requirements](#) ^[23]
 - [Requirements for the PRTG Core Server \(PRTG on premises\)](#) ^[23]
 - [Requirements for Remote Probes](#) ^[24]
 - [General Performance Impact Considerations](#) ^[25]
 - [Running PRTG in Virtual Environments](#) ^[26]
 - [Running PRTG in a Cluster](#) ^[26]
 - [Large PRTG Installations](#) ^[27]
- [Detailed System Requirements](#) ^[27]
 - [Supported Operating Systems for the PRTG Core Server and Remote Probes](#) ^[27]
 - [Hardware and Network Size Requirements for the PRTG Core Server](#) ^[28]
 - [Hardware and Network Size Requirements for Remote Probes](#) ^[29]
 - [Performance Impact Considerations Based on Sensor Types](#) ^[29]
 - [Supported Web Browsers](#) ^[30]
- [Further System Requirements](#) ^[31]
 - [Screen Resolution](#) ^[31]
 - [Requirements for Monitored Devices](#) ^[31]
 - [Requirements for Smartphones and Tablets](#) ^[32]
- [More](#) ^[32]

Basic System Requirements

PRTG consists of two main [system parts](#) ^[130], the PRTG core server and the probes.

- If you want to use PRTG on premises, you need to install PRTG on a system that meets the [basic system requirements for the PRTG core server \(PRTG on premises\)](#) ^[23].
- If you want to use PRTG Hosted Monitor, you need to install at least one remote probe on a system that meets the [basic system requirements for remote probes](#) ^[24].

Requirements for the PRTG Core Server (PRTG on premises)

■ For more detailed information, see the [hardware and network size requirements](#) ^[28] for the PRTG core server.

For installations of the [PRTG core server](#) ^[131], you need to meet the following requirements.

Category	Requirement
Hardware	We recommend that you use x64 server hardware or a properly configured virtual environment ²⁶ .
Operating system	We recommend that you use Microsoft Windows Server 2019, Microsoft Windows Server 2016, or Microsoft Windows Server 2012 R2.
Microsoft .NET Framework	Microsoft .NET Framework .NET 4.7.2 or later must be installed on the PRTG core server system or the remote probe system. For new installations of the PRTG core server or remote probes, we recommend .NET Framework 4.8 . ■ For more information, see the Knowledge Base: Which .NET version does PRTG require?
Web browser	The following browsers are officially supported by the PRTG web interface (in order of performance and reliability): <ul style="list-style-type: none"> ▪ Google Chrome 72 ▪ Mozilla Firefox 65 ▪ Microsoft Internet Explorer 11 <p>ⓘ For security and performance reasons, we strongly recommend that you always use the latest version of Google Chrome to access the PRTG web interface.</p>


☁ PRTG Hosted Monitor does not require any hardware for the PRTG core server, but it needs at least one remote probe installation to monitor your local network.

Requirements for Remote Probes




■ For more detailed information, see the [hardware and network size requirements](#) ²⁹ for remote probes.

For installations of [remote probes](#) ⁴⁵⁰³, you need to meet the following requirements:

Category	Requirement
Hardware	We recommend that you use compatible x86 hardware or a properly configured virtual environment ²⁶ .
Operating system	We recommend that you use Microsoft Windows Server 2019, Microsoft Windows Server 2016, Microsoft Windows Server 2012 R2, or Microsoft Windows 10.

Category	Requirement
.NET Framework	<p>Microsoft .NET Framework .NET 4.7.2 or later must be installed on the PRTG core server system or the remote probe system. For new installations of the PRTG core server or remote probes, we recommend .NET Framework 4.8.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Stable network connection	<p>Remote probes require a stable network connection between the PRTG core server and the remote probe. Remote probes that connect to a PRTG Hosted Monitor instance need a reliable internet connection. Unstable connections, for example via 3G, might work but you might lose monitoring data if the connection is unreliable.</p>

General Performance Impact Considerations

Category	Performance Impact Considerations
Hardware resources	<p>For a PRTG core server to work properly, it is crucial to have a certain amount of hardware resources available. If the server runs out of resources, PRTG sends warning and emergency messages to the primary email address of the PRTG System Administrator user.</p> <p> You receive warning messages if the available disk space falls below 1 GB or if the available memory falls below 500 MB, and emergency messages if the available disk space or memory fall below 50 MB. In this case, react immediately and free up system resources.</p>
Sensors	<p>Ping and SNMP sensors create much less load than complex sensors like xFlow sensors, VMware sensors, Sensor Factory sensors, WMI sensors, or Syslog Receiver or SNMP Trap Receiver sensors, for example.</p> <p> There are also limitations for some sensors that do not depend on hardware resources, for example, WMI and SNMP v3 sensors. You can overcome these limitations if you distribute the sensors between remote probes.</p> <p> For clusters, we recommend that you stay below 2,500 sensors per cluster.</p>
Channels	<p>We recommend that you use sensors with less than 50 channels. Note that sensors with more than 50 channels are not officially supported and can have a high impact on system performance.</p>
Scanning interval	<p>For a single PRTG core server setup without a cluster, we recommend that you mainly use 1-minute scanning intervals for up to 2,000 sensors and 5-minute intervals if you have more sensors.</p>

Category	Performance Impact Considerations
	<p>i To give you an impression: To monitor 5,000 sensors with a 1-minute scanning interval, PRTG takes 7.2 million measurements and evaluates, notifies, and stores them. This adds 700 MB of additional data to the database every single day.</p>
CPU-intensive features	<p>Try to limit the use of the following features:</p> <ul style="list-style-type: none"> ▪ Many quickly refreshed maps⁴⁰⁹⁵, ▪ The frequent generation of huge reports⁴⁰⁶⁹, ▪ Heavy usage of packet sniffing⁴³⁰³, Sensor Factory sensors, and Toplists⁴⁰⁰², ▪ Frequent automatically scheduled auto-discoveries²⁹⁶ for large network segments, and ▪ Constant queries of monitoring data via the PRTG API⁴³⁸⁹.
Network connection quality	<p>The quality of your network also plays an important role. When you monitor via User Datagram Protocol (UDP), for example, a high packet loss rate can lead to frequent timeouts. Remote probes that connect via unstable (WAN) connections can lead to delays as well.</p>

Running PRTG in Virtual Environments

You can run the PRTG core server and remote probes on virtualized platforms. However, PRTG consists of a lot of different components that all rely on the performance and the stability of the probe system where virtual environments add even more layers of complexity. This needs to be considered when you want to set up your PRTG installation in a way that you can achieve the same level of performance as on a physical server.

Most PRTG installations from 500 to 5,000 sensors do not need any specific optimization regarding your virtual infrastructure.

If you run larger installations of PRTG with more than 5,000 sensors, we strongly recommend that you follow the instructions in our Best Practice Guide: Running large installations of PRTG in a virtual environment.

 To download the Best Practice Guide, see the [Paessler website](#).

Running PRTG in a Cluster

We recommend a single failover [cluster](#)¹³⁵ for fail-safe monitoring. This consists of two PRTG core servers that each work as a cluster node.

In a cluster, the monitoring load doubles with each cluster node, so the performance of each additional cluster node is halved. Therefore, in a single failover cluster, divide our recommended numbers from earlier in the section in half.

☁ This feature is not available in PRTG Hosted Monitor.

Large PRTG Installations

The maximum number of sensors you can monitor with one PRTG on premises installation mainly depends on the monitoring technology and the scanning intervals you use. In general, we recommend that you use a dedicated physical machine to run both the PRTG core server and remote probes. [Running large installations of PRTG in a virtual environment](#) is possible if you follow some specific rules and guidelines to achieve the required level of performance.

■ For more information, see section [Detailed System Requirements](#) ²⁷.

■ For more information, see the Knowledge Base: [How can I speed up PRTG—especially for large installations?](#)

☁ PRTG Hosted Monitor is restricted to a maximum of 10,000 sensors. More sensors are not possible.

Detailed System Requirements

Supported Operating Systems for the PRTG Core Server and Remote Probes

Category	Requirements
Supported operating systems	<p>The 32-bit and 64-bit versions of the following operating systems are officially supported for the PRTG core server service and PRTG probe service:</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2019* ▪ Microsoft Windows Server 2016* ▪ Microsoft Windows Server 2012 R2* ▪ Microsoft Windows Server 2012* ▪ Microsoft Windows 10 ▪ Microsoft Windows 8.1 ▪ Microsoft Windows 8 ▪ Microsoft Windows 7 ▪ Microsoft Windows Server 2008 R2* <p>* Windows servers in Core mode or Minimal Server Interface are not officially supported.</p>
Operating system version	The version (32-bit or 64-bit) of the PRTG core server depends on the version of your operating system.

Category	Requirements
Microsoft .NET Framework	<p>Microsoft .NET Framework .NET 4.7.2 or later must be installed on the PRTG core server system or the remote probe system. For new installations of the PRTG core server or remote probes, we recommend .NET Framework 4.8.</p> <ul style="list-style-type: none"> ■ For more information, see the Knowledge Base: Which .NET version does PRTG require? ⓘ The .NET framework is imperative if you want to monitor VMware and XenServer virtual environments. Many other sensors also need an installed Microsoft .NET Framework.
Disabled FIPS mode	<p>Make sure that the Federal Information Processing Standards (FIPS) mode (Windows security option "System Cryptography: Use FIPS-compliant algorithms for encryption, hashing, and signing.") is disabled on Windows systems that run the PRTG core server service or PRTG probe service. FIPS-compliant encryption can cause issues with sensors that use the .NET framework.</p> <ul style="list-style-type: none"> ■ For more information, see the Knowledge Base: Why should I disable the FIPS mode under Windows?

☁ PRTG Hosted Monitor is restricted to a maximum of 10,000 sensors. More sensors are not possible.

Hardware and Network Size Requirements for the PRTG Core Server

Hardware requirements for the PRTG core server service mainly depend on the sensors and scanning intervals that you use. Your network size can also influence the performance of your monitoring.

Sensors per PRTG core server	CPU cores	RAM	Disk space	Concurrently active administrator sessions	Number of remote probes
Up to 500	4	4 GB	100 GB	< 30	< 30
Up to 1,000	6	6 GB	500 GB	< 30	< 30
Up to 2,500	8	8 GB	750 GB	< 20	< 60
Up to 5,000	8	12 GB	1,000 GB	< 20	< 60
Up to 10,000	10 - 12	16 GB	1,500 GB	< 15	< 80

Sensors per PRTG core server	CPU cores	RAM	Disk space	Concurrently active administrator sessions	Number of remote probes
> 10,000	We recommend that you set up additional PRTG core servers. For more information on scaling, you can also contact the Paessler Presales team .				

Hardware and Network Size Requirements for Remote Probes

Hardware requirements for the PRTG probe service mainly depend on the sensors and scanning intervals that you use. Your network size can also influence performance of your monitoring.

Sensors per remote probe	CPU cores	RAM	Disk space
Up to 200	2	2 GB	40 GB
200 - 2,000	4	4 GB	40 GB
2,000 - 5,000	6	6 GB	40 GB
> 5,000	We recommend that you set up additional remote probes. For more information on scaling, you can also contact the Paessler Presales team .		

i A remote probe system does not have any special disk requirements (< 1 GB). In general, we recommend at least 40 GB.

Performance Impact Considerations Based on Sensor Types

You can find the [performance impact](#)⁴²⁴³ of a specific sensor on the sensor's Overview tab or in the [Add Sensor](#)³⁶² dialog.

■ For an overview list of sensors sorted by performance impact, see section [List of Sensors by Performance Impact](#)⁴⁶⁷².

In general, consider the following rules for the of different sensor types:

Sensor Type	Performance Impact Considerations
SNMP v1 and v2, Ping, Port, and HTTP	We recommend that you use these sensor types for scenarios with thousands of sensors.

Sensor Type	Performance Impact Considerations
SNMP v3	SNMP v3 has performance limitations because of the use of encryption. Furthermore, keep in mind that SNMP v3, unlike SNMP v1 and v2c, does not scale with more CPU power. Because of this limitation, PRTG can only handle a limited number of requests per second so that you can use only a limited number of sensors using SNMP v3.
WMI	Try to keep the number of WMI sensors per probe below 120 sensors (with a 60-second scanning interval), or below 600 sensors (with a 300-second scanning interval).
xFlow	The maximum number of xFlow sensors depends on the traffic pattern, the number of xFlow packets per second that the probe receives, as well as the performance of the probe system.
Packet Sniffer	This sensor type creates the highest CPU load on the probe system. We only recommend this technology for monitoring low traffic connections (< 50 Mbit/s steady stream). If the traffic often exceeds 10 Mbit/s, use a dedicated remote probe.
VMware monitoring	Monitoring VMware is limited to about 30 sensors at a 60-second scanning interval, or 100 sensors at a 5-minute scanning interval. On probes that run on Windows Server 2012 R2 or later, you can use more VMware sensors. These limitations issue from the VMware platform. <div style="background-color: #0070C0; color: white; padding: 2px;"> ■ For more information, see the Knowledge Base: How can I increase the connection limit on VMware systems? PE121 </div>

i You can overcome these limitations if you distribute the sensors between remote probes.

Detailed Information about Supported Web Browsers

Category	Requirements
Firefox	<p>i Firefox is potentially vulnerable to cross-site scripting (XSS) attacks. These XSS exploits are possible if you click, for example, phishing links in emails that contain malicious code, and you are logged in to PRTG with Firefox.</p> <p>■ For more information, see the Knowledge Base: How secure is it to access the PRTG web interface with Firefox?</p>
Microsoft Internet Explorer 11 and unsupported browsers	<ul style="list-style-type: none"> ▪ Microsoft Internet Explorer 11 and older versions of Microsoft Edge, as well as other browsers that are not officially supported, have issues with some functionalities of the PRTG web interface. However, you can access the PRTG web interface with any browser. ▪ Deprecated Internet Explorer versions as well as some mobile browsers might not be able to display all features of the PRTG web interface.

Category	Requirements
Plugins	<p>Plugins can also have an effect when you view the PRTG web interface. Make sure that you add exceptions for PRTG in the plugins' settings, particularly if you use ad blockers.</p> <ul style="list-style-type: none"> For more information, see the Knowledge Base: The logs page in the PRTG web interface does not load. What can I do?

Further System Requirements

Screen Resolution

A screen resolution of at least 1024x768 pixels is sufficient for most functions of PRTG. However, we recommend a screen resolution of 1200x800 pixels or higher.

Requirements for Monitored Devices

Category	Requirement
SNMP monitoring	<p>The monitored devices must support SNMP v1, v2c, or v3. An SNMP-compatible software must be installed on the device. You must enable SNMP on the device and you must grant the PRTG core server system access to the SNMP interface.</p> <ul style="list-style-type: none"> For more information, see section Monitoring via SNMP ⁴²⁸⁶.
Windows/WMI monitoring	<p>To monitor via WMI, you need a Windows network. Use only the officially supported operating systems ²⁷ except for Microsoft Windows Server 2008 that has strong performance issues when you monitor via WMI.</p> <ul style="list-style-type: none"> For more information, see section Monitoring via WMI ⁴²⁹⁸.
xFlow monitoring	<p>The monitored devices must be able to send NetFlow (NetFlow v5, NetFlow v9, or IPFIX) data packets or sFlow v5 packets to the probe system.</p> <ul style="list-style-type: none"> For more information, see section Monitoring Bandwidth via xFlows ⁴³⁰⁵.
Packet sniffer monitoring	<p>PRTG can only analyze data packets that pass the local machine's network card. Switches with monitoring ports are necessary for network-wide monitoring in switched networks.</p> <ul style="list-style-type: none"> For more information, see section Monitoring Bandwidth via Packet Sniffing ⁴³⁰³.

Category	Requirement
Other sensor types	You can find specific sensor and device requirements (for example, modules, components, device configurations) in the corresponding sensor section and in the Add Sensor dialog.

Requirements for Smartphones and Tablets

You can optionally use the PRTG apps for iOS and Android.

■ For more information and system requirements, see section [PRTG Apps for Mobile Network Monitoring](#) ⁴²⁷⁸.

More

■ KNOWLEDGE BASE

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

Why should I disable the FIPS mode under Windows?

- <https://kb.paessler.com/en/topic/71305>

How can I increase the connection limit on VMware systems? PE121

- <https://kb.paessler.com/en/topic/30643>

How secure is it to access the PRTG web interface with Firefox?

- <https://kb.paessler.com/en/topic/70192>

The logs page in the PRTG web interface does not load. What can I do?

- <https://kb.paessler.com/en/topic/77329>

How can I speed up PRTG—especially for large installations?

- <https://kb.paessler.com/en/topic/2733>

How do I run PRTG under a different Windows user account than the local system account?







- <https://kb.paessler.com/en/topic/89016>

■ PAESSLER WEBSITE

System requirements for PRTG Network Monitor

- <https://www.paessler.com/prtg/requirements>

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1.6 Introduction: Monitoring with PRTG

This section provides an overview of basic principles of PRTG. It shows you how to prepare your IT infrastructure for monitoring with PRTG. You do not have to re-configure your whole network for PRTG, but there are several topics that are useful to consider before you actually use PRTG.

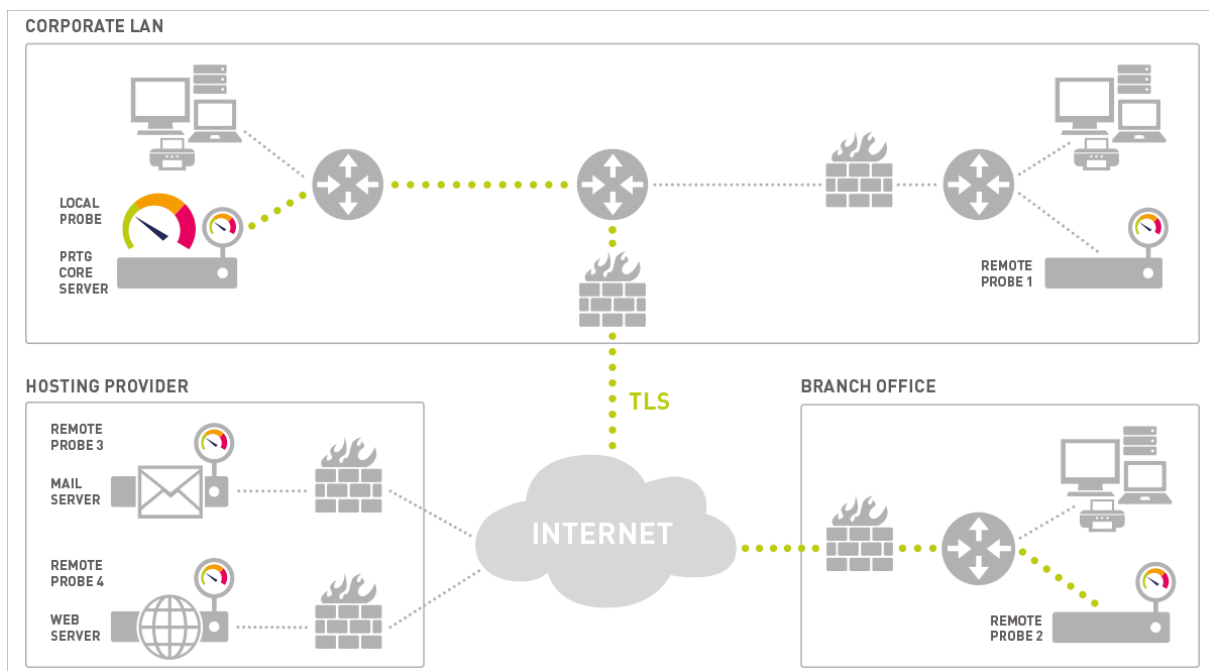
In this section:

- [What PRTG Does](#) ^[34]
- [How to Monitor with PRTG](#) ^[35]
- [What PRTG Monitors](#) ^[35]
- [How to Prepare Monitoring](#) ^[36]
- [Which Hardware Do I Want to Monitor](#) ^[37]
- [Types of Logins and Credentials](#) ^[37]
- [Monitoring Technologies](#) ^[38]
- [Notifications from PRTG](#) ^[41]

■ You can also see section [Quick Start Guide](#) ^[44] to immediately start monitoring.

What PRTG Does

PRTG is a unified monitoring tool with which you can monitor almost any object with an IP address. PRTG consists of the [PRTG core server](#) ^[131] that is responsible, for example, for the configuration, data management, and web server, and one or more [probes](#) ^[131] that perform data collection and monitoring processes on [devices](#) ^[140] via [sensors](#) ^[140].



PRTG Architecture

Sensors are the building blocks of PRTG. A sensor can tell you about one or more aspects of a device. For example:

- Uptime
- Load
- Interface throughput
- Bandwidth usage
- Loading times
- Speed
- Hardware status
- Temperature
- Quality
- Resource consumption
- User counts
- Record counts
- Log events
- Database requests

How to Monitor with PRTG

PRTG uses the following ways to receive monitoring data from target devices:

- Poll or query sensor data: PRTG actively obtains data from a device and refreshes it in regular intervals. This includes, for example, device status, resource usage, and performance metrics. Most sensors use this method. PRTG can also consume and collect sensor data based on interfaces with, for example, HTTP or HTTPS requests, port checks, email checks, File Transfer Protocol (FTP) downloads, and database requests.
- Listen for or receive sensor data: PRTG passively receives data that is pushed to PRTG by a device or application. This includes, for example, unexpected events, Syslogs and Simple Network Management Protocol (SNMP) traps, detailed data flow (bandwidth monitoring), and event log messages.

Most of the monitoring data that PRTG collects is actively queried. It is the basis for statistical sampling to see how a device or application performs over time.

 For more information, see section [Monitoring Technologies](#) ³⁸.

What PRTG Monitors

PRTG comes with more than [200 different sensors](#) ⁴⁵⁸¹ that range from platform-specific sensors to generic hardware and bandwidth sensors to custom scripts. It also comes with preconfigured sensors for common configurations. Add these sensors to the target devices that they are designed for to immediately receive monitoring data.

Additionally, you can add custom sensors in PRTG. For example, you can create individual sensors for devices for which PRTG does not provide native sensors, or you can write scripts that return data from applications. See also the [PRTG Sensor Hub](#) for ready-to-use custom sensors.



What Can PRTG Monitor?

How to Prepare Monitoring

Best practice for taking the first step in comprehensive monitoring is to make a plan. Think about the following questions.

- What do I need to monitor in my IT infrastructure?
- How can I retrieve the needed information? Which technologies and credentials are required?
- Which notification methods do I want to use to receive alerts if something is wrong?

You can use the following sections as a basis for your monitoring plan.

Which Hardware Do I Want to Monitor

When you plan what you want to monitor, we recommend that you add the most important devices within your infrastructure first. Start with the core network and other infrastructure that all network devices depend upon, your **Business Critical Tier-1**. This usually includes key infrastructure such as core routers, switches, VPN, firewalls, and basic network services such as the Dynamic Host Configuration Protocol (DHCP), the Domain Name System (DNS), and authentication like the Lightweight Directory Access Protocol (LDAP).

Hardware Overview

There is a huge number of different vendors with a lot of different hardware devices, so hardware details go beyond the scope of this article. Every IT infrastructure is individual, but here are the main points you should consider.

- Core infrastructure
 - a. Routers, switches, firewalls
 - b. Core network services: DNS, Active Directory, LDAP servers
- 1. For your hardware devices, you need statistics on availability, usage, and performance.
- 2. PRTG retrieves data via standard protocols:
 - a. Ping, SNMP; web queries via HTTP and HTTPS; email via Post Office Protocol version 3 (POP3), Internet Message Access Protocol (IMAP), Simple Mail Transfer Protocol (SMTP)
 - b. Hardware parameters via SNMP, Secure Shell (SSH), Simple Object Access Protocol (SOAP)
 - c. Bandwidth usage via xFlow (NetFlow, jFlow, sFlow, IPFIX), packet sniffing, SNMP
 - d. Windows systems via Windows Management Instrumentation (WMI)
 - e. Other interfaces via SSH and scripts (for example, PowerShell and Python)

PRTG monitors, tracks, and charts data, as well as generates alarms.

Types of Logins and Credentials

Many of the sensors included in PRTG rely on access through logins to specific systems. You need different credentials with sufficient permission for all the different devices, operating systems, and domains. The configuration might also be different if you want PRTG to act as a Syslog or SNMP trap receiver or to track xFlows.

In most cases, PRTG uses the following credential types to access the devices that you want to monitor.

- SNMP credentials
- Windows credentials (WMI)
- Linux, Solaris, and macOS credentials (SSH/Web-based Enterprise Management (WBEM))
- VMware and XenServer credentials
- Database management system (DBMS) credentials
- Other credentials (for example, AWS keys, HTTP proxy)

Define your (administrative) credentials for all types of target devices that you want to monitor in the root group of the device tree. Devices that you add to PRTG automatically [inherit](#)¹⁴² these credentials, so you do not usually have to reenter credentials, depending on the used monitoring technology.

Monitoring Technologies

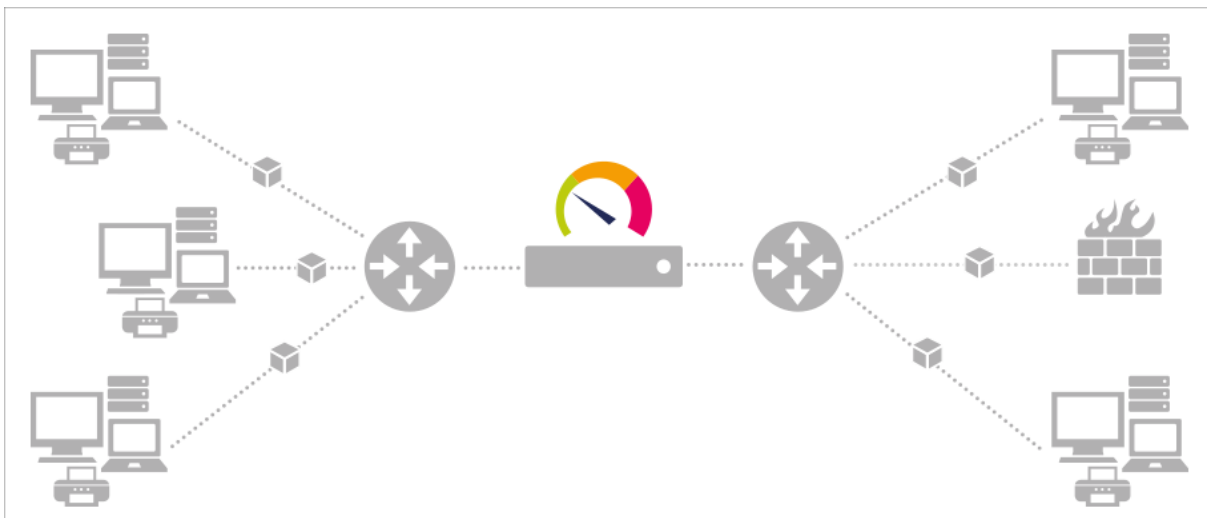
This section briefly describes the most common monitoring technologies.

■ For more information, see section [Sensor Technologies](#)⁴²⁸⁵.

Monitoring with Simple Network Management Protocol (SNMP)

Simple Network Management Protocol (SNMP) is a set of standards for communication with devices in a Transmission Control Protocol (TCP)/IP network. SNMP monitoring is useful if you are responsible for servers and network devices such as hosts, routers, hubs, and switches. It enables you to keep an eye on network and bandwidth usage, and monitor important issues such as uptime and traffic levels.

You can use SNMP to monitor the bandwidth usage of routers and switches on a port-by-port basis, as well as device readings such as memory and CPU load. The target devices must support SNMP. Most devices with enabled SNMP require the same configuration like SNMP version and community string. To find out how to set up SNMP on a specific device, search the internet for your device name or model and SNMP configuration.



Network Monitoring via SNMP

When you use a sensor with this technology, PRTG sends small data packets to devices, for example, querying routers, switches, and servers for the traffic counters of each port. These queries trigger reply packets from the device. Compared to other bandwidth monitoring technologies via World Wide Name (WWW), packet sniffing, or Windows Management Instrumentation (WMI), the SNMP option creates the least CPU and network load.

PRTG supports three versions of the Simple Network Management Protocol (SNMP) protocol: version 1, version 2c, and version 3.

SNMP v1

This is the oldest and most basic version of SNMP.

- Pro: Supported by most SNMP-compatible devices.
- Con: Limited security because it only uses a simple password ([community string](#)^[4289]) and sends data in clear text (unencrypted). Because of this, you should only use it inside LANs behind firewalls, but not in WANs. Version 1 only supports 32-bit counters, which are not enough for high-load (gigabits/second) bandwidth monitoring.

SNMP v2c

This version adds 64-bit counters.

- Pro: Supports 64-bit counters to monitor bandwidth usage in networks with gigabits/second loads.
- Con: Limited security (same as with SNMP v1).

SNMP v3

This version adds authentication and encryption to SNMP.

- Pro: Offers user accounts and authentication for multiple users and optional data packet encryption to increase the available security, and has all advantages of Version 2c in addition.
- Con: Difficult to configure and higher overhead for the probe, which reduces the number of devices that you can monitor (see [here](#)^[4288] for more information).

SNMP Traps

Various devices can send SNMP trap messages to notify you of system events.

- PRTG supports SNMP v1 and SNMP v2c traps.
- The destination for SNMP traps is the IP address of the trap receiver, which is the IP of the probe system to which you add the [SNMP Trap Receiver sensor](#)^[3107].

Which SNMP Version Should I Choose?

The SNMP version you should choose depends on your environment. Here are some guidelines:

- If your network is publicly accessible, you might want to use SNMP v3, which has encryption and secure access. However, security and encryption add overhead, which results in less performance.
- If your network is isolated or well-protected behind firewalls, the lower security level of SNMP v1 or SNMP v2c might be sufficient.
- From the perspective of monitoring with PRTG, SNMP v2c is preferable if you have a lot of devices to monitor. This lets you monitor more devices with a shorter scanning interval, and it supports 64-bit counters.

The most important aspect is to set the same SNMP version in the PRTG settings (for example, in the [root group settings](#)^[366]) as you have configured in your target device. If you select an SNMP version that is not supported by the server or device that you want to monitor, you receive an error message. Unfortunately, these error messages, in most cases, do not explicitly point to the possibility that you are using the incorrect SNMP version. These messages provide minimum information only, such as [cannot connect](#). Similar errors occur when community strings, usernames, or passwords do not match.

- For more information about basic requirements for SNMP monitoring, see this Knowledge Base article: [My SNMP sensors don't work. What can I do?](#)

Monitoring Windows Systems

You can monitor Windows systems via [Windows Management Instrumentation \(WMI\)](#)^[4298] and [Windows performance counters](#)^[4298]. WMI is the Microsoft base technology for monitoring and managing Windows-based systems. PRTG uses this technology to access data of various Windows configuration parameters and status values. However, sensors using the WMI protocol generally have a high impact on system performance. In addition to strict WMI sensors, there are sensors that can use performance counters to monitor Windows systems.

To monitor via WMI and performance counters, it is usually sufficient to provide Credentials for Windows Systems in PRTG. However, monitoring via WMI is not always trivial and often causes issues.

■ If you run into issues, see the Knowledge Base: [My WMI sensors don't work. What can I do?](#)

It is also possible to use Simple Network Management Protocol (SNMP) for Windows devices. The same information is often available using any of these protocols. From a performance perspective, the preference is SNMP, then WMI or performance counters.

Bandwidth and Traffic Monitoring: xFlows and Packet Sniffing

Using xFlow (NetFlow, jFlow, sFlow, IPFIX) protocols, you can monitor the bandwidth usage of all packets going through a device. In PRTG, you can view [Toplists](#)^[4002] for all xFlow sensors.

xFlows are monitoring data pushed from network devices to PRTG. You can use them to monitor where and how much data is traveling to and from. This way, they determine which machine, protocol, or user is consuming bandwidth. PRTG supports the following xFlow types:

- NetFlow v5/v9 and IPFIX: Originally introduced by Cisco and supported by several vendors.
- jFlow: Traffic sampling technology introduced by Juniper networks.
- sFlow: Short for [sampled flow](#), introduced by HP. sFlow uses statistical sampling of the traffic at defined intervals to achieve scalability for high volume interfaces.

You can also use [packet sniffing](#)^[4303] for bandwidth monitoring if your hardware does not support any of these xFlow versions.

Monitoring Passively Received Data

PRTG provides the option to monitor passively received data. For this purpose, you can set up a device in a way that it automatically sends the data to PRTG. Specific sensors can receive this data and alert you based on your individual settings. For example, all Linux/Unix and most network devices support remote devices generating data that has to be configured on each device, and sending the messages to a probe system. Usually, only the destination IP address and port are required.

Examples for this monitoring technology are [HTTP Push sensors](#)^[4336], as well as [Syslog Receiver](#)^[3326] and [SNMP Trap Receiver sensors](#)^[3107].

▶ For more information, see the video tutorial: [SNMP Trap Receiver and Syslog Receiver sensors](#).

Monitoring with Hypertext Transfer Protocol (HTTP)

HTTP is a standard application layer protocol and the basis for data communication on the internet. HTTP is a request-response method for client-server architectures, where the client sends a request and the server processes and responds to the request.

Monitoring via HTTP is useful if you want to monitor websites or web servers. It enables you to keep an eye on the availability and download times of a website or the performance statistics of a web server. There are also a lot of other possible use cases for HTTP sensors. For example, you can request any application programming interface (API) that is reachable via HTTP and monitor returned values. This approach lets you include almost any type of device or application into your monitoring.

Notifications from PRTG

PRTG can notify you in [various ways](#)⁴¹³⁸ if it detects that there is something wrong in your network. You can individually define when (for example, based on [thresholds](#)⁴⁰³⁴ or on [sensor states](#)¹⁹⁷¹) and how you want to receive notifications from PRTG. The most common methods are email, SMS text message, and push notifications to your smartphone that runs a [PRTG app for iOS or Android](#)⁴²⁷⁸.

For your critical infrastructure it is best practice to set up two redundant notifications with different delivery methods (for example, email and SMS via a gateway).

 For more information about notifications, see the video tutorial: [Notifications](#).

Email Notifications

The most common notification method is to send emails with the SMTP server built into PRTG. This means that no SMTP server setup or configuration is required, but if you want to deliver emails through your email server, you have to configure it in the [SMTP settings](#)⁴¹⁹⁵.

SMS Notifications

PRTG on premises can also notify you on your mobile phone. To [deliver SMS notifications](#)⁴¹⁹⁸, you can select one of the SMS service providers that PRTG includes by default and use it with your credentials for this provider. Of course, you can also use any other service provider if you define a custom URL (look in your provider's documentation for the required format). You can also use an SMS gateway to receive messages even if your internet connection is down.

 For a list of third-party tools, see the Knowledge Base: [How can I send SMS text message notifications via a modem or a mobile phone with PRTG?](#)

Push Notifications

PRTG can send push notifications to your iOS and Android devices when you run the according PRTG app on your smartphone.

 For more information, see the Knowledge Base: [How can I use push notifications with PRTG?](#)

More

 **KNOWLEDGE BASE**

My SNMP sensors don't work. What can I do?

Part 1: Welcome to PRTG | 6 Introduction: Monitoring with PRTG

- <https://kb.paessler.com/en/topic/46863>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

My HTTP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/85284>

How can I send SMS text message notifications via a modem or a mobile phone with PRTG?

- <https://kb.paessler.com/en/topic/393>

How can I use push notifications with PRTG?

- <https://kb.paessler.com/en/topic/60892>

VIDEO TUTORIAL

SNMP Trap Receiver and Syslog Receiver sensors

- <https://www.paessler.com/learn/videos/syslog-receiver>

Notifications

- <https://www.paessler.com/learn/videos/notifications>

Welcome to PRTG

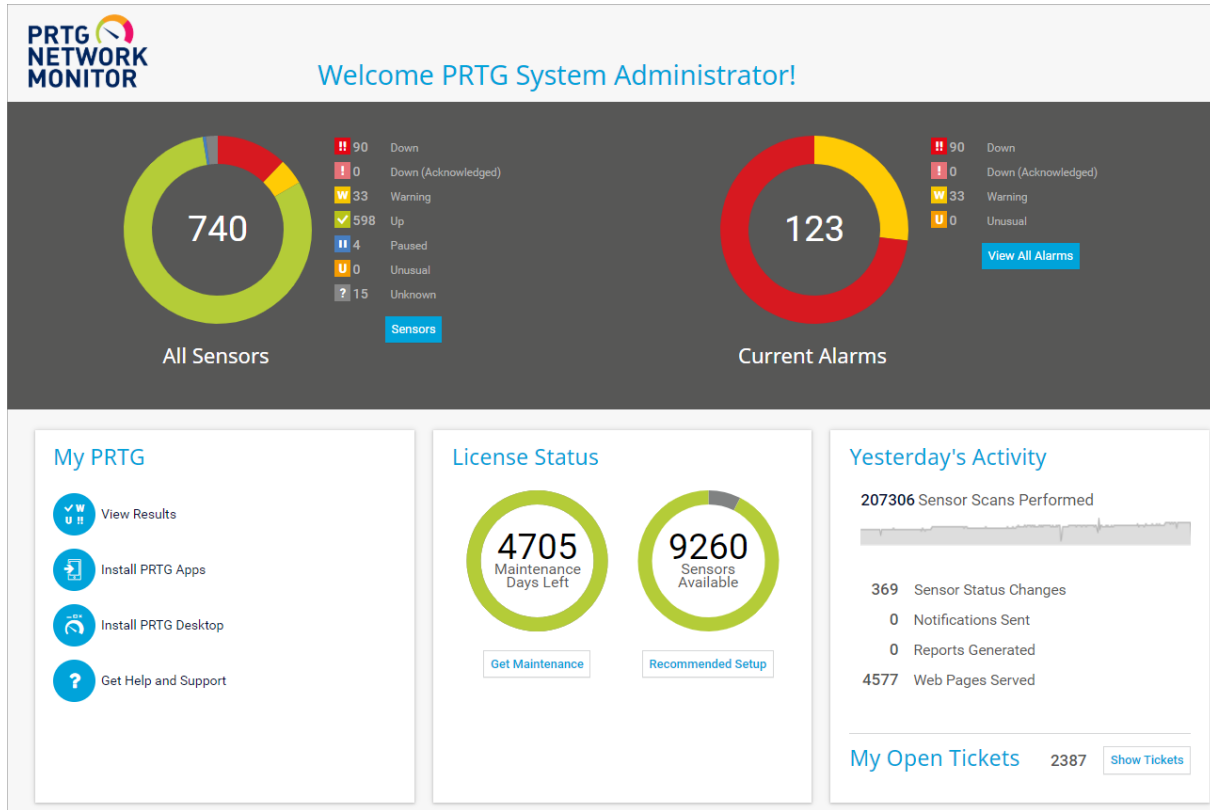
- [About this Document](#) ¹⁶
- [Key Features](#) ¹⁷
- [New in This Version](#) ²⁰
- [Available Licenses](#) ²¹
- [System Requirements](#) ²³
- [Introduction: Monitoring with PRTG](#) ³⁴

Part 2

Quick Start Guide

2 Quick Start Guide

Welcome to PRTG. This section gives you a quick start into monitoring with PRTG.



Welcome Screen

To set up your network monitoring, download the PRTG installer from the [Paessler website](#) and follow the steps in the installation wizard, or set up a PRTG Hosted Monitor instance on <https://www.paessler.com/prtg-hosted-monitor> and install a remote probe in your LAN. Provide some information about your network in the [smart setup](#) and PRTG immediately starts to monitor your network. You can adjust the setup to your needs later on.

Quick Start Guide

- [Step 1: Download, Installation, and First Login](#)
- [Step 2: Smart Setup](#)

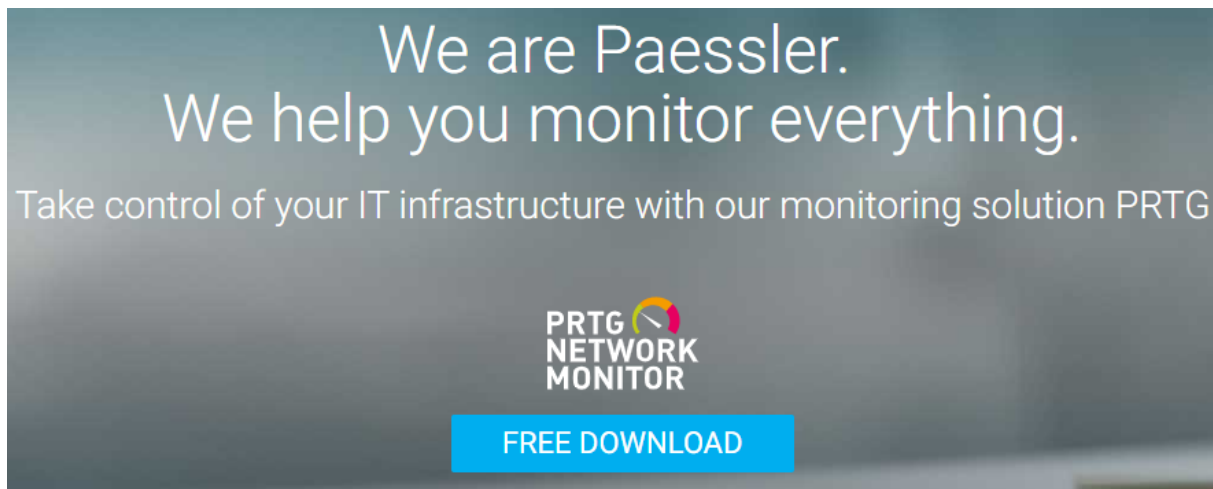
2.1 Step 1: Download, Installation, and First Login

To use PRTG on premises, download it from the [Paessler website](#) and install it on a Windows system.

☁ For information on how to set up a PRTG Hosted Monitor instance, see section [Create a PRTG Hosted Monitor Instance](#)^[57].

Download PRTG on premises

You can find the PRTG installer on the [Paessler website](#). There, you can also log in to the Paessler shop to buy or upgrade your license or to renew your maintenance.



Download PRTG

Download PRTG

Download the latest stable version of PRTG from the [Paessler website](#) as a [trial version](#)^[21].

ⓘ Once you have installed PRTG, the [auto-update](#)^[4257] automatically downloads and installs new software versions.

Install PRTG on premises

Double-click the setup file on the system that you want to use as the PRTG core server. Follow the [installation wizard](#)^[100] and install the software.

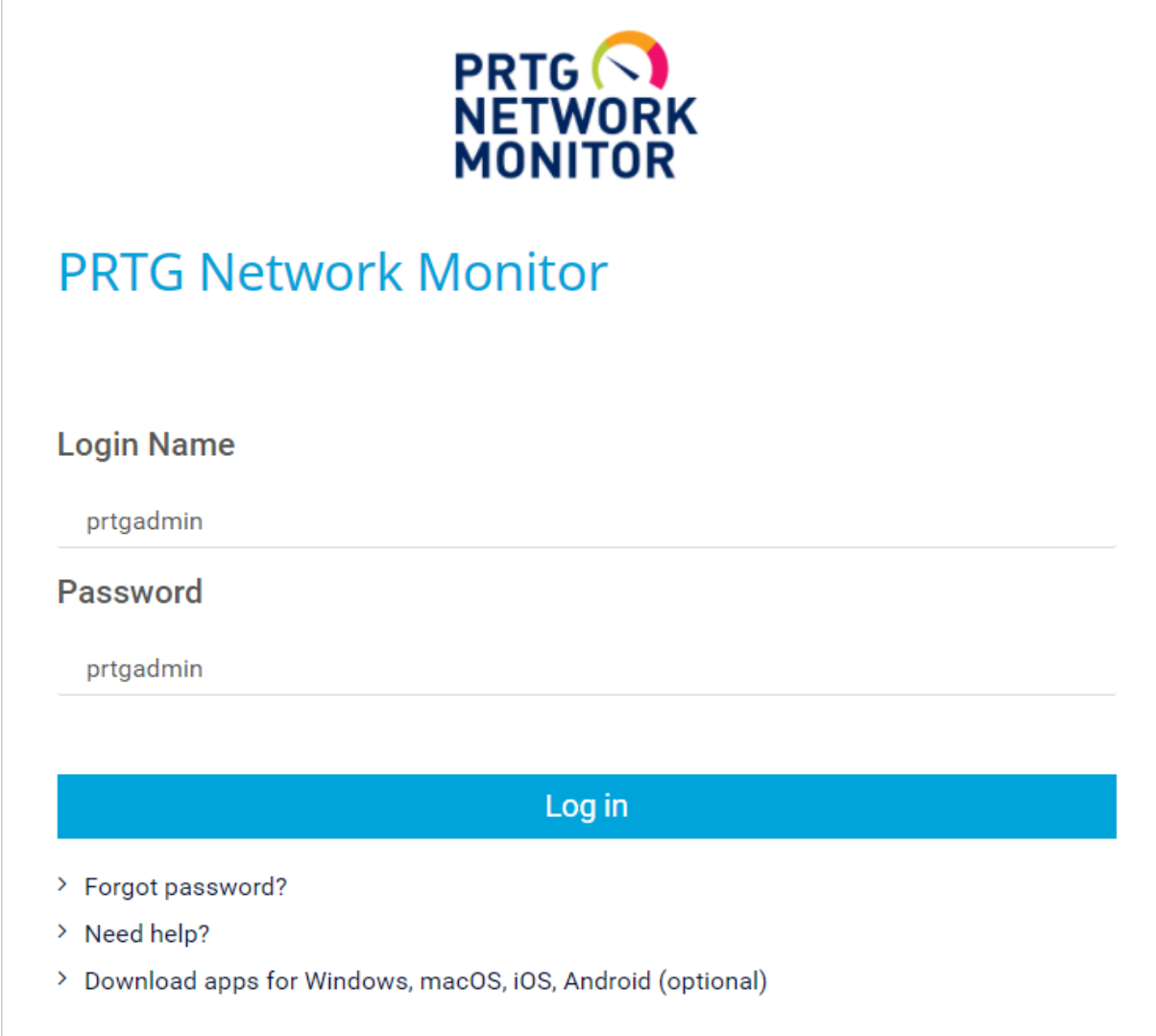
At the end of the installation, open the PRTG web interface with one of the officially supported browsers:

- Google Chrome 72,
- Mozilla Firefox 65, or
- Microsoft Internet Explorer 11.

ⓘ Because of scripting incompatibilities, you might not be able to use all functionalities of the PRTG web interface with Internet Explorer 10 or earlier and other older browsers. If you cannot access the PRTG web interface, open the URL of PRTG in a different supported browser.

Login

After you installed PRTG on premises, open the PRTG web interface with a supported browser. You see the login screen.



PRTG NETWORK MONITOR

PRTG Network Monitor

Login Name

prtgadmin

Password

prtgadmin

Log in

- > Forgot password?
- > Need help?
- > Download apps for Windows, macOS, iOS, Android (optional)

PRTG on premises Login Screen

PRTG automatically fills in the credentials of the predefined [PRTG System Administrator](#) user. The login name and the initial password is [prtgadmin](#). Click Login to proceed.

■ See the [next step](#) ⁴⁸¹ for more information about the initial configuration of PRTG.

More

 VIDEO TUTORIAL

All video tutorials

- <https://www.paessler.com/learn/videos>

Quick Start Guide

- [Step 1: Download, Installation, and First Login](#) 
- [Step 2: Smart Setup](#) 

2.2 Step 2: Smart Setup

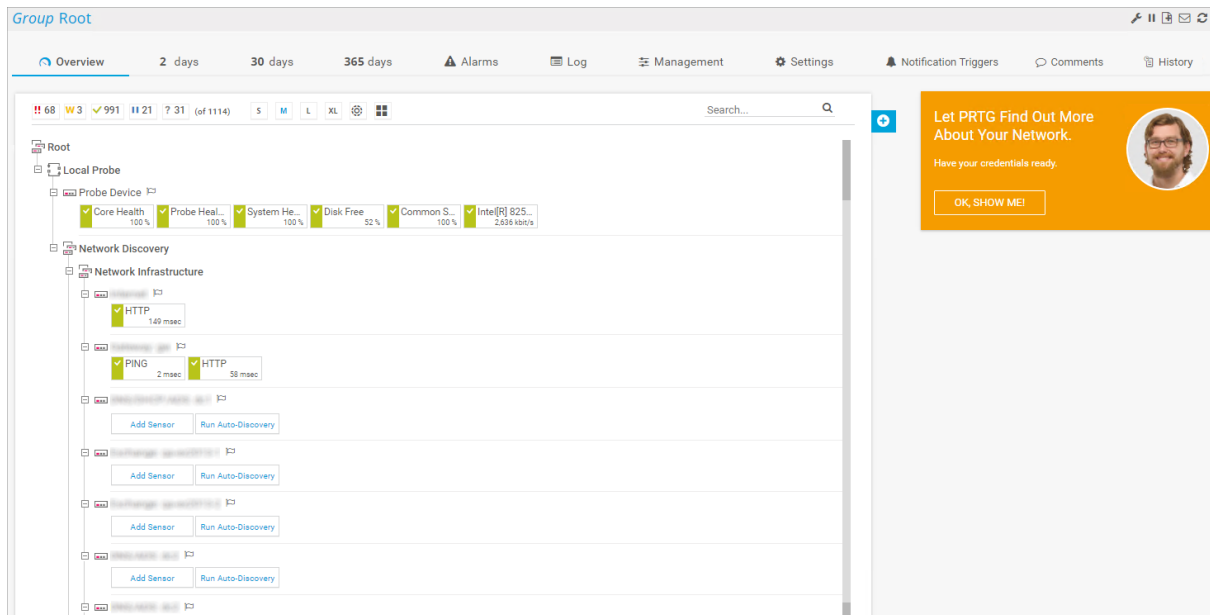
PRTG automatically starts the smart setup on a new PRTG installation. This setup assistant guides you through the initial setup of your network monitoring system. The smart setup reappears until you have completed all steps. You can skip the introduction altogether right at the beginning.

First Start

When you log in for the first time, you see the [device tree](#)^[183]. PRTG on premises already includes several [devices](#)^[140] with [sensors](#)^[140] that monitor your network, sorted into different [groups](#)^[139]. PRTG automatically creates the device tree during the installation process via the [auto-discovery](#)^[296] function.

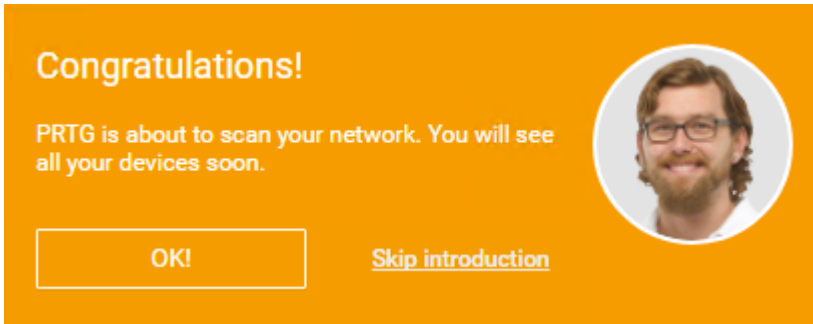
PRTG scans your network by pinging IP addresses in the subnet of your PRTG core server and adds all reachable devices to your specific network monitoring structure.

- ❗ The smart setup scans only for devices with IP addresses in private network ranges. You can manually start an auto-discovery for other subnets later.



Device Tree after Initial Auto-Discovery

In the upper-right corner of the PRTG web interface, you can see the smart setup assistant. They guide you through 5 setup steps during which you can enter more information about your network. PRTG runs another auto-discovery with this information to add additional devices and sensors to your monitoring. You can still edit the settings that you provided during the smart setup later on to adjust the monitoring to your needs.



Start Your Introduction to PRTG

Click OK! to start a guided tour.

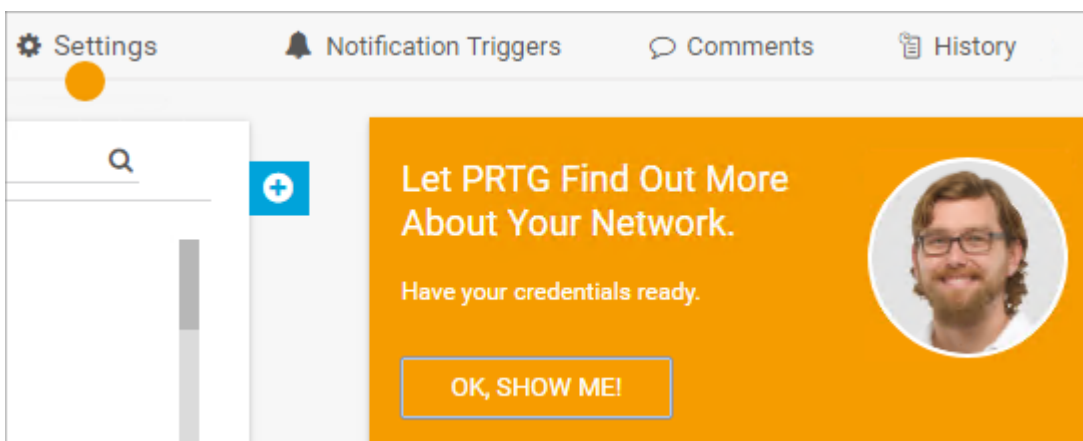
i If you click Skip introduction, the smart setup assistant never appears again. We strongly recommend that you take the guided tour if you are new to PRTG.

The steps to take are:

- [Step 1: Provide Credentials](#)⁴⁹
- [Step 2: Enter Location Information](#)⁵¹
- [Step 3: Change Your PRTG Login Password](#)⁵¹
- [Step 4: Confirm Your Email Address](#)⁵²
- [Step 5: Switch to SSL/TLS](#)⁵³ (if you access PRTG from a different system)

Step 1: Provide Credentials

Your smart setup assistant asks you to provide credentials for devices in your network. Click OK, Show Me!, follow the animated mouse pointer, and open the Settings tab of the root group.



Have Your Credentials Ready

On the Settings tab, enter various administrator credentials for your network environment. With these credentials, PRTG can automatically add a large number of additional devices and sensors to your device tree. This way, you do not need to manually add every single device.

Credentials for Windows Systems

Domain or Computer Name

User

Password

How Can PRTG Access Your Systems?

Please enter administrator credentials so PRTG can discover more sensors for your devices.

[OK, DONE!](#)

Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems

User

Login Login via Password
 Login via Private Key

Password

For WBEM Use Protocol HTTP
 HTTPS

For WBEM Use Port Set automatically (port 5988 or 5989)
 Set manually

SSH Port

SSH Rights Elevation Run the command as the user connecting (default)
 Run the command as another user using 'sudo' (with password)
 Run the command as another user using 'sudo' (without password)
 Run the command as another user using 'su'

SSH Engine Default (recommended)
 Compatibility Mode (deprecated)

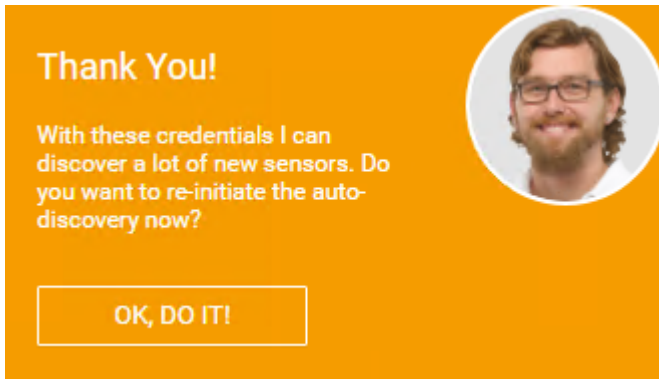
Provide Your Credentials

- To monitor your Windows clients and servers via Windows Management Instrumentation (WMI), enter Windows administrator credentials for your network. We recommend that you use domain administrator credentials if you use an Active Directory. For a general introduction to the technology behind WMI, see section [Monitoring via WMI](#)^[4298].
- If you have systems that run on Linux, Solaris, or macOS, enter root access credentials for these systems. For a general introduction to Secure Shell (SSH) monitoring, see section [Monitoring via SSH](#)^[4301].
- If you use the virtual environments VMware or Citrix XenServer, enter root access credentials for these systems. For a general introduction to the monitoring of virtual environments, see section [Monitoring Virtual Environments](#)^[4318].
- To monitor hardware like routers or switches, the Simple Network Management Protocol (SNMP) is the most commonly used protocol. Usually, all SNMP-enabled devices use the same settings by default: SNMP **v2c**, the community string **public**, and SNMP port **161**. For a general introduction to the technology behind SNMP, see section [Monitoring via SNMP](#)^[4286].
- You can also enter credentials for database management systems or credentials for Amazon Web Services (AWS) monitoring.

PRTG stores these credentials in the root group of your device tree. All dependent devices automatically inherit these credentials and use them for monitoring. You can disable the [inheritance of settings](#)^[142] at any level if you want to enter other credentials instead.

■ For more information about the available options, see section [Root Group Settings](#)^[368].

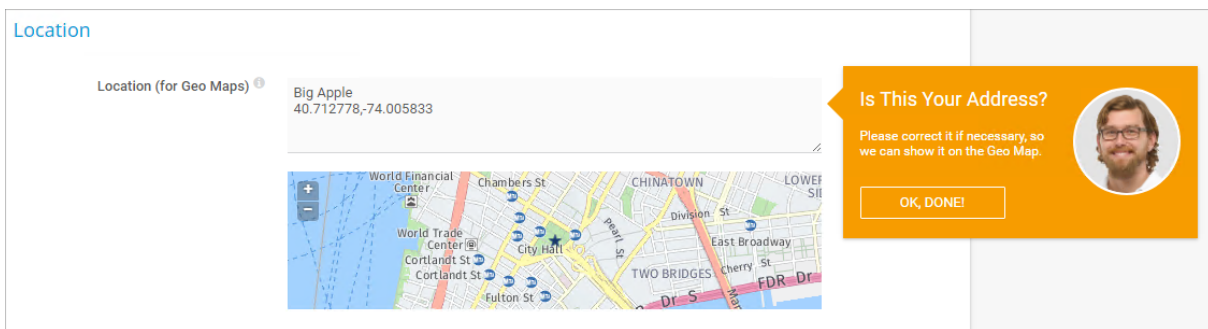
Click OK, Done! to finish this setup step. Click OK, Do It! to start a detailed auto-discovery.



Start a Detailed Auto-Discovery

Step 2: Enter Location Information

While PRTG runs a new auto-discovery in your network with the provided credentials, the setup assistant asks you to provide the location of your PRTG core server. This information is displayed in [geographical maps](#)⁴⁰²⁶. Enter your location and confirm with OK, Done!. Click OK, Show Me! to get back to the device tree.

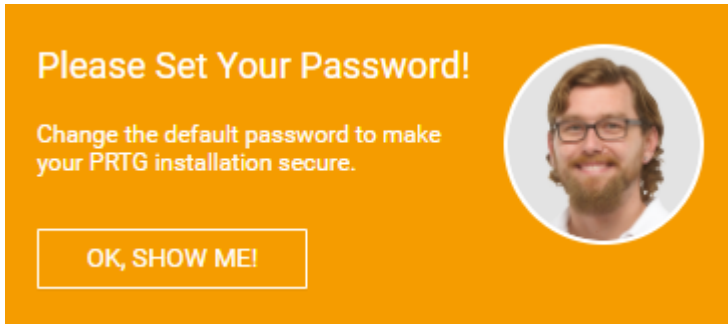


Enter Your Location

■ For more information about the available options, see section [Root Group Settings](#)³⁶⁷.

Step 3: Change Your PRTG Login Password

Back in the device tree, the setup assistant in PRTG on premises asks you to change your password. Click OK, Show Me! and follow the assistant to your account settings. By default, PRTG uses the [PRTG System Administrator](#) user account with the login name [prtgadmin](#) and the password [prtgadmin](#). So we strongly recommend that you change the password to protect PRTG from unauthorized access.



Start the Password Change

Enter your New Password and confirm it under Retype Password. The password must meet the following requirements:

- At least eight characters long
- At least one numeral
- At least one capitalized letter

Click OK, Done! to save your new password.

Change the Default Password

For more information about the available options, see section [My Account](#) ⁴¹²³.

Step 4: Confirm Your Email Address

To complete the smart setup, check whether the email address that you entered during the installation is correct.

- i** A correct email address is mandatory for PRTG to reach you via email notifications when there are alarms and for other important messages.

Click OK, Done! and follow the assistant back to the device tree.

The screenshot shows the 'User Account Settings' form. The fields are: Login Name (prtgadmin), Display Name (PRTG System Administrator), Primary Email Address (johnpublic@company.com), Password (Don't change selected), and Passhash (Show passhash button). An orange overlay on the right says 'Please Verify Your Email Address.' with a profile picture and an 'OK, DONE!' button.

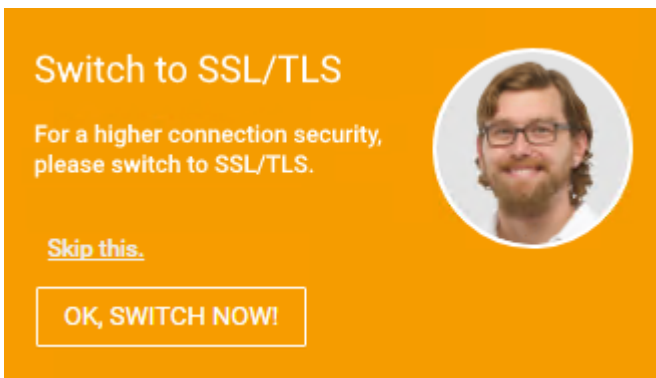
Verify Your Email Address

For more information about the available options, see section [My Account](#)⁴¹²³.

Step 5: Switch to SSL/TLS

For PRTG on premises, if you access the PRTG web interface from a system other than the system where you installed PRTG, the setup assistant asks you to switch to a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. We strongly recommend that you run the PRTG web interface secured with SSL/TLS, especially if you make your PRTG web interface available from the internet. Otherwise, your passwords are sent over your network without encryption.

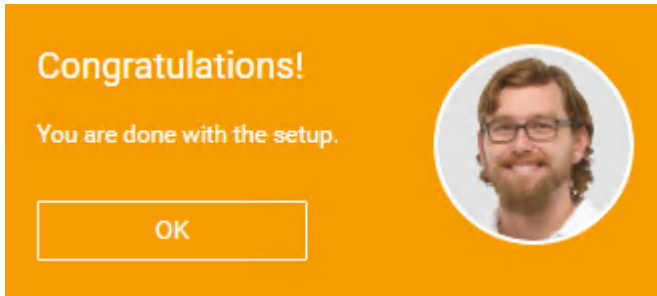
- Click OK, Switch Now! to get more information about using SSL/TLS for the PRTG web server.
- In the new window, click Yes, Switch to SSL/TLS to switch to an SSL/TLS-secured connection.
- PRTG must restart its services to apply the changes. The PRTG web interface is reachable under an HTTPS URL afterward.
- When the PRTG web interface reloads, it most likely shows a [certificate warning](#)¹⁶⁸³. Confirm the certificate warning to proceed to the login screen.



Switch to a Secure Connection

For more information, see sections [User Interface](#)⁴¹⁷⁵ and [SSL Certificate Warning](#)¹⁶⁸³.

You Are Done



Finish the Smart Setup

While you went through the smart setup, PRTG created additional devices and sensors for you. The first monitoring values are also available.

■ To become familiar with the PRTG web interface, we recommend that you read on in section [General Layout](#)¹⁸³.

More

▶ VIDEO TUTORIAL

Smart setup

- https://www.paessler.com/learn/videos/installation_of_prtg_network_monitor

Quick Start Guide

- [Step 1: Download, Installation, and First Login](#)⁴⁵
- [Step 2: Smart Setup](#)⁴⁸

Part 3

Using PRTG Hosted Monitor

3 Using PRTG Hosted Monitor

The following sections show you how to [create a PRTG Hosted Monitor instance](#)^[57], how to [manage a PRTG Hosted Monitor subscription](#)^[70], and how to use [multi-factor authentication](#)^[81].

■ See the Paessler website for [PRTG Hosted Monitor – Service description](#) and [FAQ – PRTG Hosted Monitor](#).

More

■ PAESSLER WEBSITE

PRTG Hosted Monitor – Service description

- <https://www.paessler.com/prtg-hosted-monitor>

FAQ – PRTG Hosted Monitor

- <https://www.paessler.com/prtg-hosted-monitor/faq>

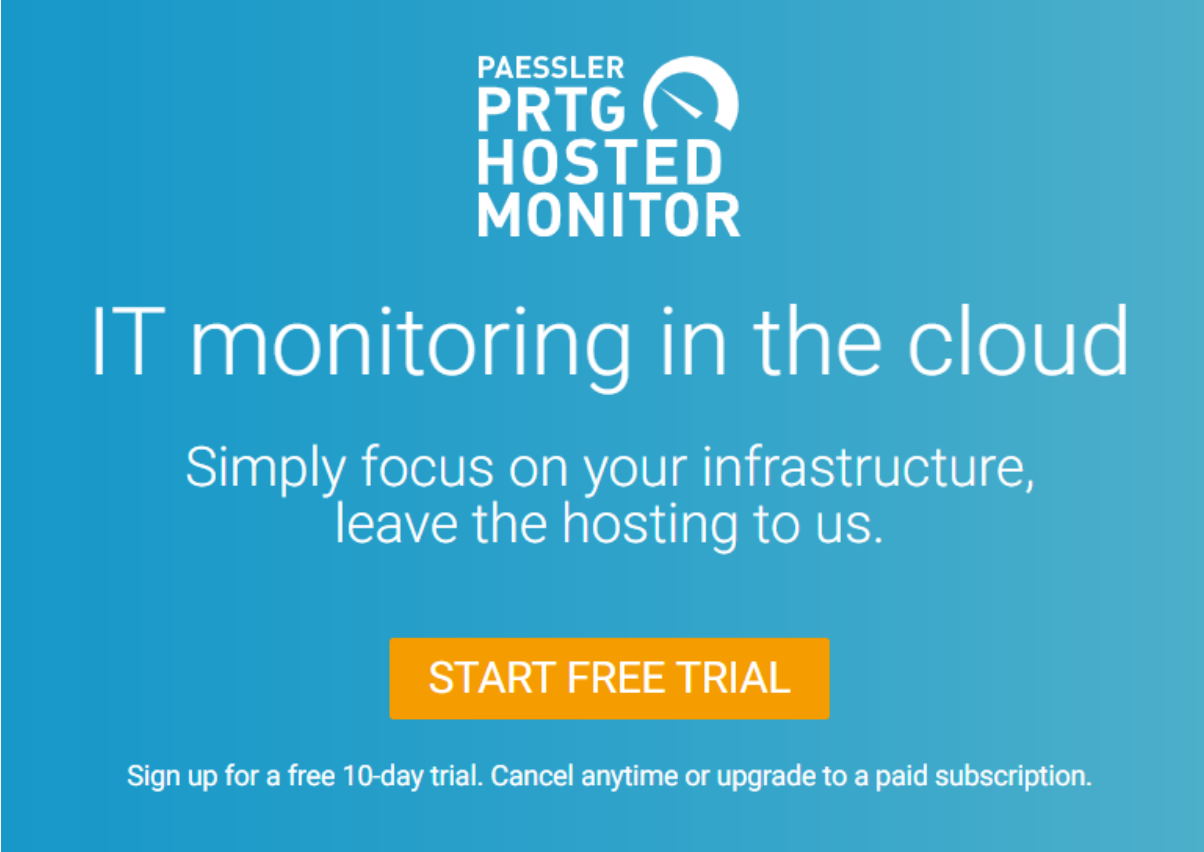
Using PRTG Hosted Monitor

- [Create a PRTG Hosted Monitor Instance](#)^[57]
- [Manage a PRTG Hosted Monitor Subscription](#)^[70]
- [Use Multi-Factor Authentication with PRTG Hosted Monitor](#)^[81]

3.1 Create a PRTG Hosted Monitor Instance

To create a PRTG Hosted Monitor instance, open a web browser and go to the [PRTG Hosted Monitor web page](#).

i We recommend that you use Google Chrome 72.



The image is a promotional banner for PRTG Hosted Monitor. It features a blue background with the PRTG logo at the top center. Below the logo, the text reads "IT monitoring in the cloud" in a large, white, sans-serif font. Underneath that, a smaller white font says "Simply focus on your infrastructure, leave the hosting to us." At the bottom center, there is a prominent orange button with the text "START FREE TRIAL" in white, uppercase letters. Below the button, a line of white text states: "Sign up for a free 10-day trial. Cancel anytime or upgrade to a paid subscription."

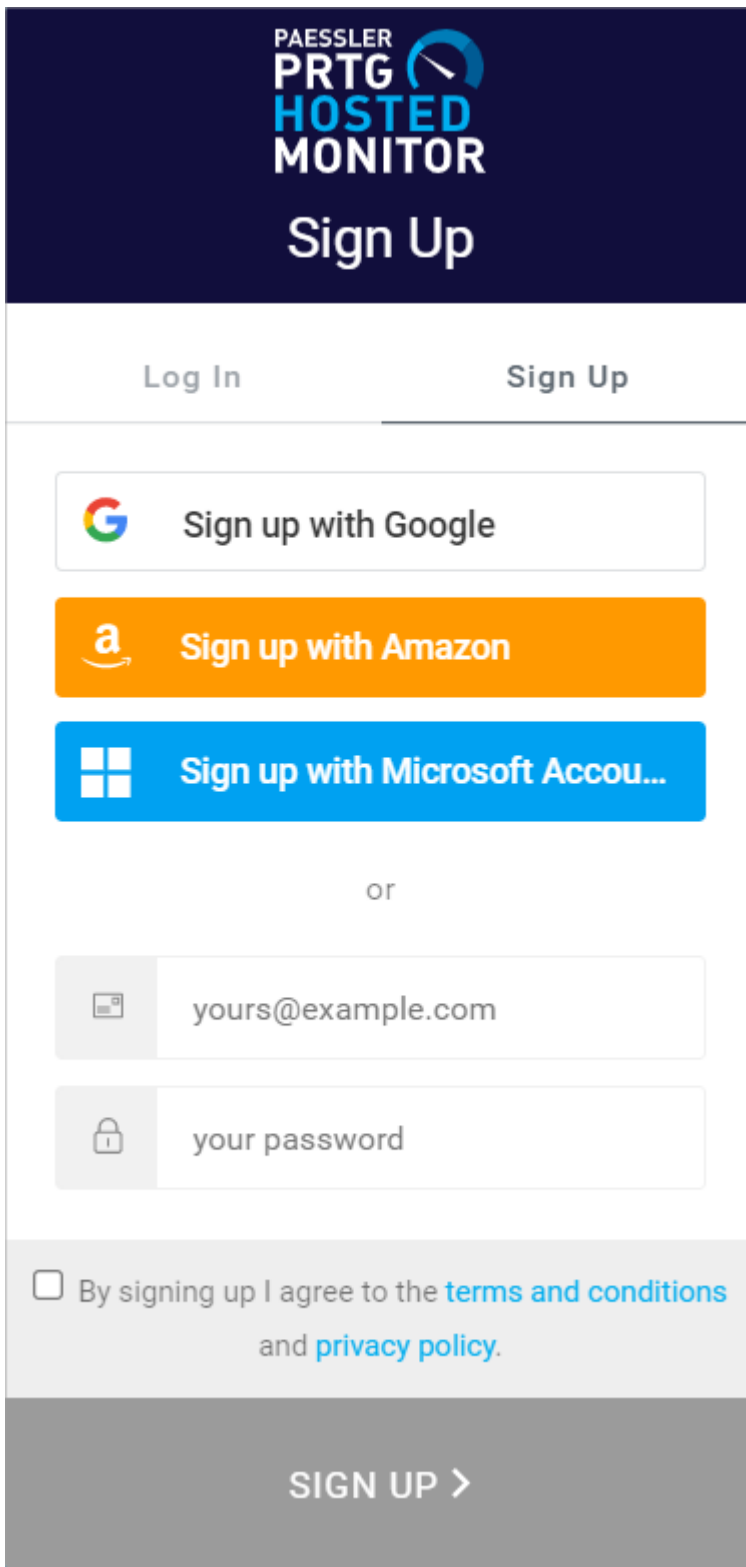
[Start Your Free Trial Now](#)

In this section:

- [Create a PRTG Hosted Monitor instance](#)⁵⁷
- [Smart Setup for PRTG Hosted Monitor](#)⁶⁸

Create a PRTG Hosted Monitor Instance


1. On the [PRTG Hosted Monitor web page](#), click Start Free Trial to create your PRTG Hosted Monitor instance. PRTG Hosted Monitor automatically assigns a domain name to your instance. You can change the domain name⁷² at any time.





PAESSLER
PRTG
HOSTED
MONITOR

Sign Up


Log In Sign Up


 Sign up with Google

 Sign up with Amazon

 Sign up with Microsoft Accou...

or

 yours@example.com

 your password

By signing up I agree to the [terms and conditions](#) and [privacy policy](#).

SIGN UP >

Sign Up to PRTG Hosted Monitor

2. You can sign up with your Google, Amazon, or Windows account via single sign-on (SSO) (Auth0). PRTG Hosted Monitor connects to and then automatically uses this account for login. Click the respective button and follow the instructions. Alternatively, you can sign up via email. Enter a valid Email address and a Password. The password must meet the following requirements:
 - At least 8 characters long

- At least **one** uppercase letter
 - At least **one** lowercase letter
 - At least **one** numeral
3. Make sure that you agree to the terms and conditions and privacy policy. Click Sign Up to register for your PRTG Hosted Monitor instance. You then see that a verification email has been sent to your inbox.



Thank you for signing up. Please check your email inbox, we have just sent you an email to verify your email address.

Verify Email Address Notification

4. Go to your inbox and open the email.

PRTG Email Verification

Verify Email Address

Thank you for signing up for PRTG.

VERIFY EMAIL ADDRESS >>

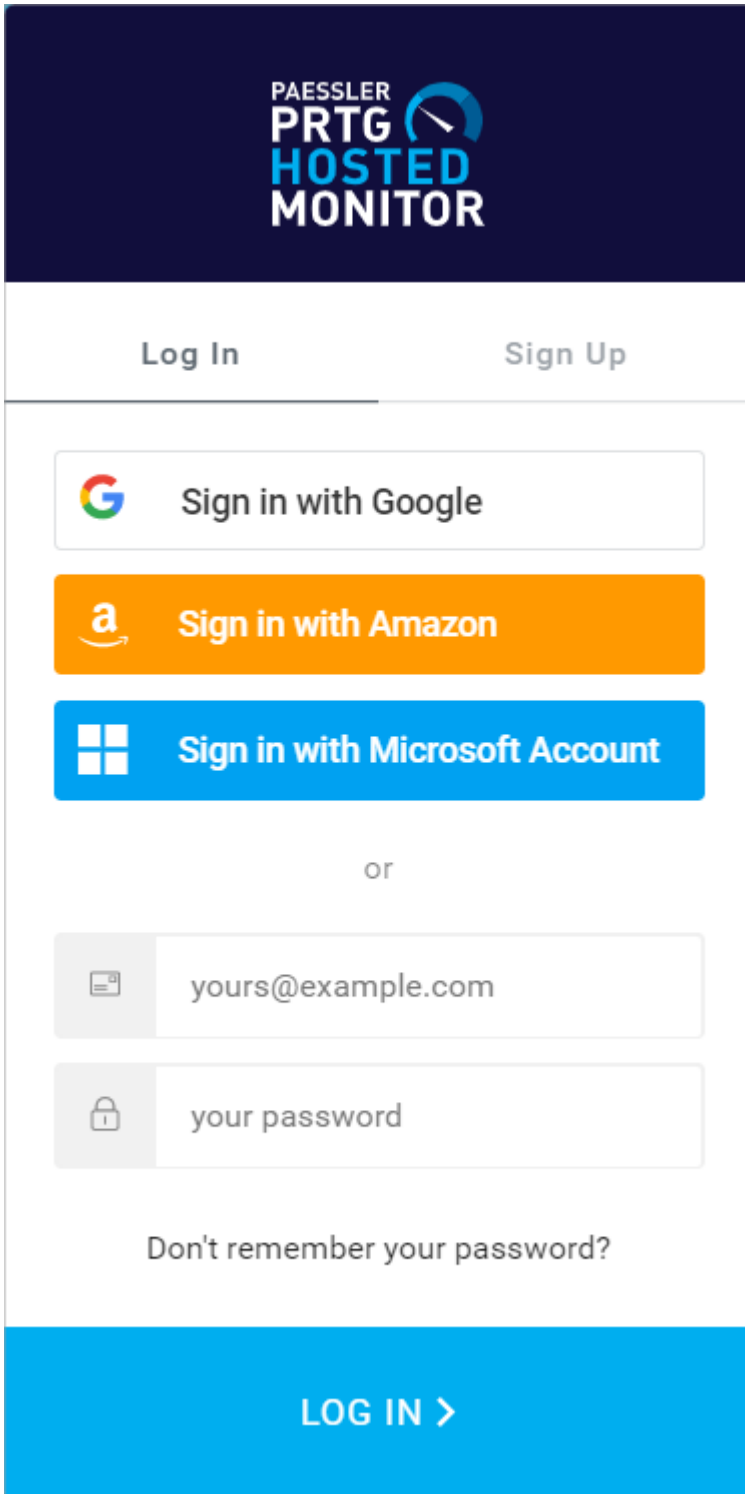
[Or click here!](#)

If you have any issues with your account, please don't hesitate to contact us at support@paessler.com

Enjoy Monitoring!
Your Paessler Team


Verify Email Address


5. Click Verify Email Address to verify your email address and to go to the login screen.




PAESSLER
PRTG
HOSTED
MONITOR


Log In Sign Up


 Sign in with Google

 Sign in with Amazon

 Sign in with Microsoft Account

or

 yours@example.com

 your password

Don't remember your password?

LOG IN >

Login Screen

6. Enter your credentials and click Log In to log in to PRTG Hosted Monitor.

Subscription Overview

YOU DON'T HAVE ANY SUBSCRIPTIONS

Start monitoring with PRTG Hosted Monitor now by creating a subscription below

[+ CREATE NEW SUBSCRIPTION](#)

Create New Subscription

7. Click Create New Subscription.

Optional - Select Domain

Choose your subdomain

You can provide your own unique subdomain name here, e. g. your-name or leave it empty and we will generate one for you!

Select Region

This defines the location where your PRTG will be hosted. This is permanent and can't be changed later!

EUROPE	UNITED STATES
Your PRTG instance will be hosted in Ireland.	Your PRTG instance will be hosted in Northern Virginia.
SELECT REGION	SELECT REGION

Select Pricing Plan

TRIAL PLAN				
500 Active Sensor Limit				
Free For 10 Days				
<small>You can only have one active trial at a time.</small>				
SELECT PLAN				

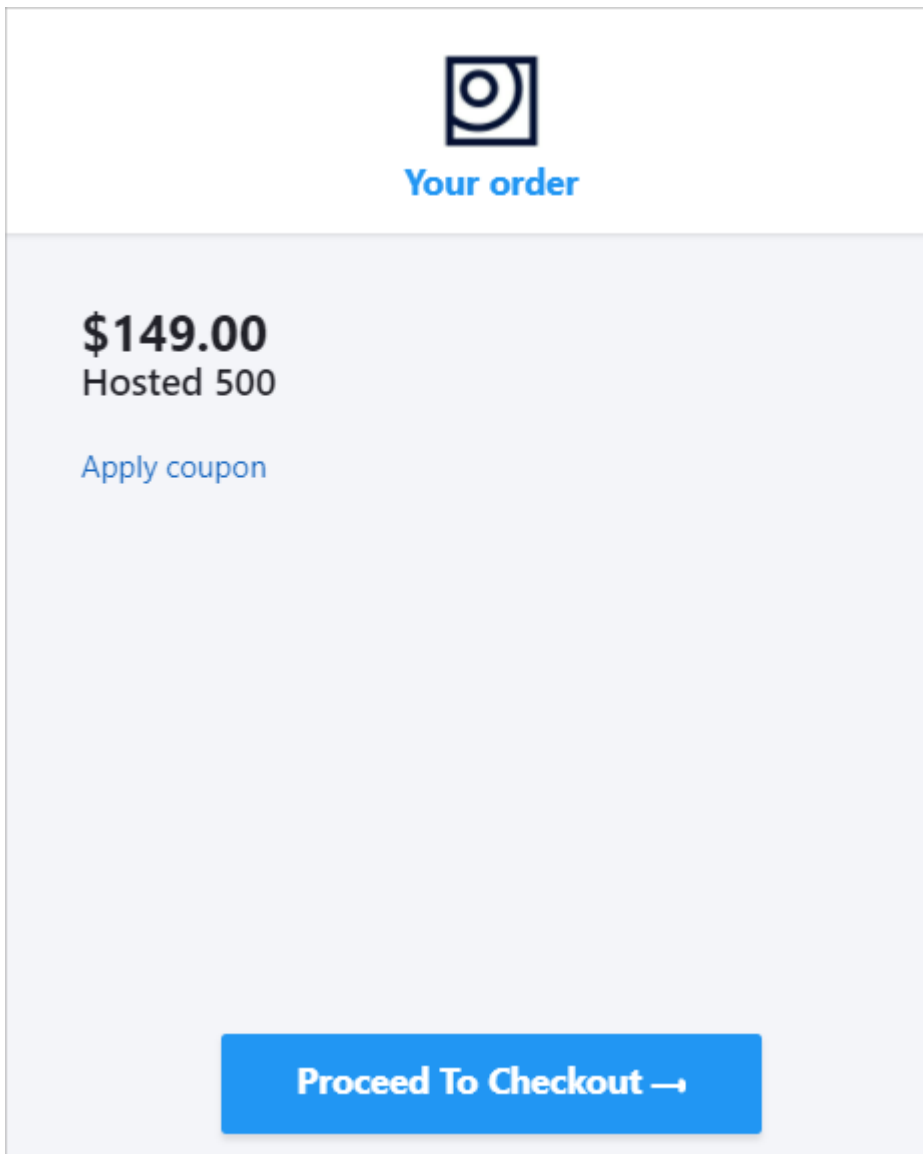
HOSTED 500	HOSTED 1000	HOSTED 2500	HOSTED 5000	HOSTED 10000
500 Active Sensor Limit	1000 Active Sensor Limit	2500 Active Sensor Limit	5000 Active Sensor Limit	10000 Active Sensor Limit
149\$ / Month	249\$ / Month	549\$ / Month	899\$ / Month	1499\$ / Month
SELECT PLAN	SELECT PLAN	SELECT PLAN	SELECT PLAN	SELECT PLAN

By starting a new subscription I accept the transfer of my data for the purpose of invoicing to [Stripe Inc.](#) and [Chargebee Inc.](#)
I accept the monthly payment withdrawal for my PRTG hosted by Paessler subscription. See [terms and conditions](#) and [privacy policy](#) for details.

[CHECKOUT](#)

Subscription Setup

8. Select the region in which PRTG Hosted Monitor hosts your instance.
9. Select a subscription plan that fits your requirements and click Checkout.
i The billing account will be charged after the free 10-day trial period.



Order Overview

10. You see an overview of your order. Click Proceed To Checkout.

Add your account details

● ●

First Name (Optional)	Last Name (Optional)
-----------------------	----------------------


Next

Account Details

11. Optionally enter your first name and last name and click Next.

Add your billing address

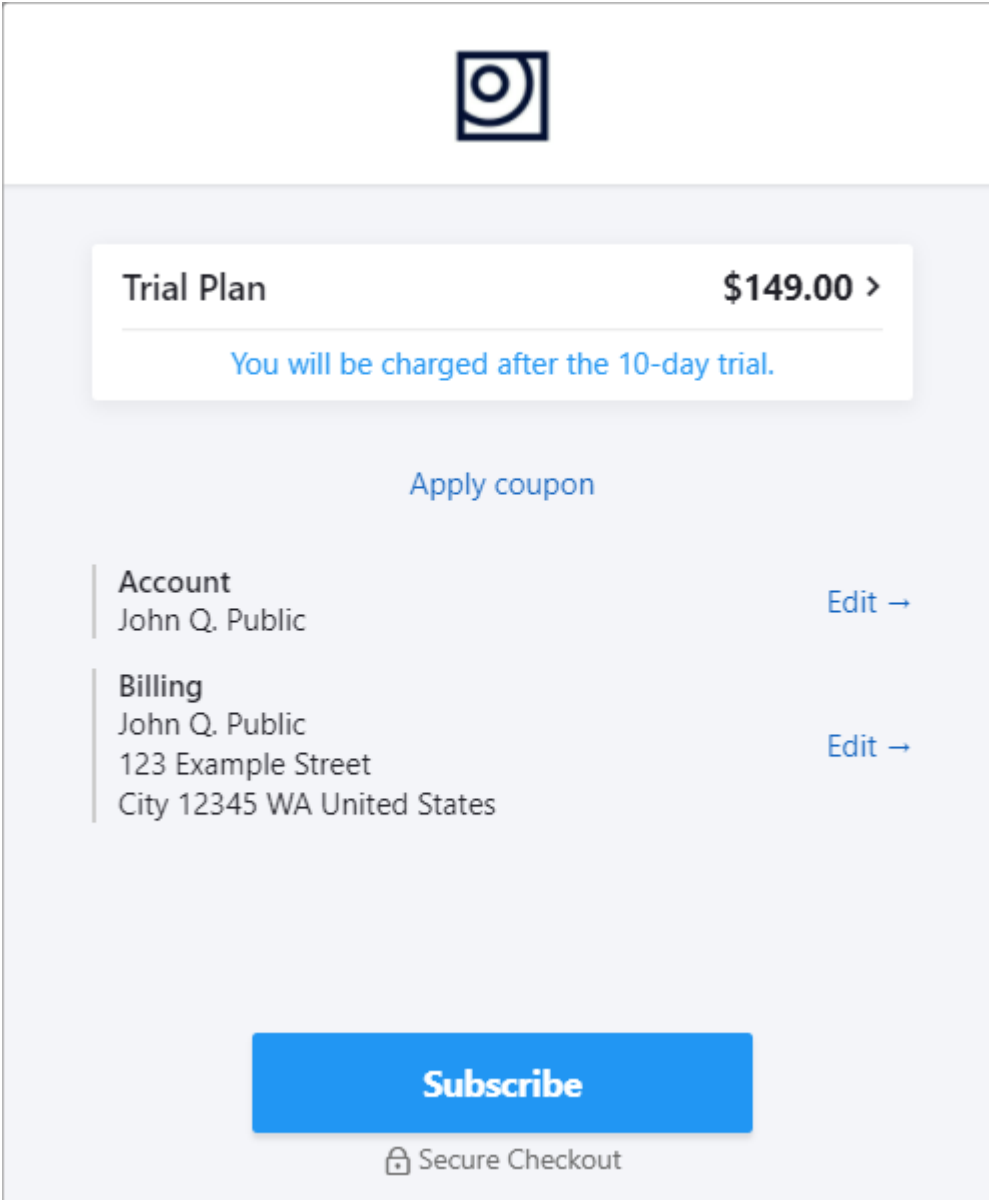
● ●

First Name	Last Name
Company (Optional)	
Address Line1	
Address Line2 (Optional)	
City	Zip
State	Country Pick an option 

Next

Billing Address

12. Enter your billing information. Then click Next.



The screenshot shows the PRTG account and billing details overview page. At the top center is the Paessler logo. Below it, a white box displays the trial plan information: "Trial Plan" on the left and "\$149.00 >" on the right. Underneath this box, a blue link states "You will be charged after the 10-day trial." Below the trial plan information is a blue link that says "Apply coupon". The account details are listed in two sections: "Account" and "Billing". The "Account" section shows "John Q. Public" with an "Edit →" link. The "Billing" section shows "John Q. Public", "123 Example Street", and "City 12345 WA United States" with an "Edit →" link. At the bottom of the page is a large blue "Subscribe" button, and below it is a "Secure Checkout" link with a lock icon.

Account and Billing Details Overview

13. You see an overview of your account and billing details. Click **Subscribe** to finish.

Subscription Overview + ADD NEW SUBSCRIPTION

🕒8%

ⓘ It may take a while until your PRTG is ready.

PRTG DOMAIN	NONE
PRTG TIMEZONE	(UTC) Coordinated Universal Time
PRTG SERVER REGION	Ireland - Europe
PRICING PLAN	Trial Plan
SUBSCRIPTION STATUS	Trial Active
FREE TRIAL DAYS LEFT	10

OPEN PRTG MANAGE

Subscription Progress

14. The Subscription Overview page opens and shows the progress of the PRTG Hosted Monitor installation.

✅ **INSTANCE READY**

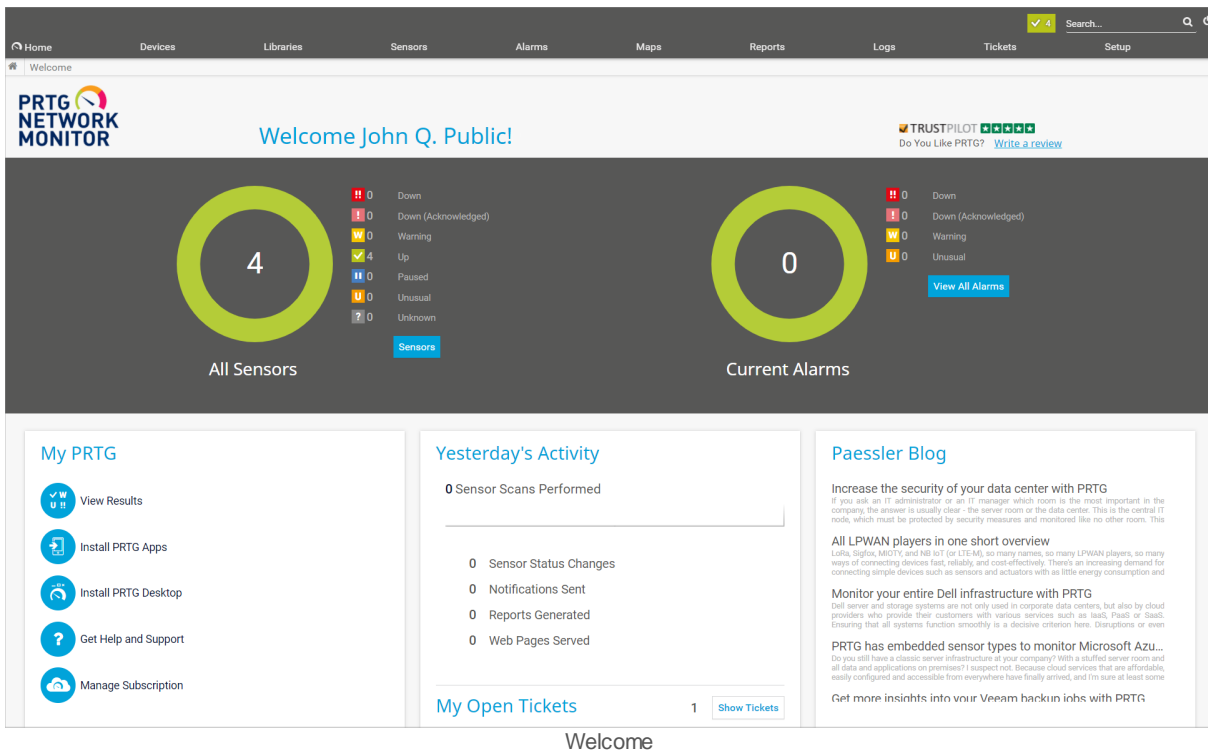
PRTG DOMAIN	my-instance.my-prtg.com
PRTG TIMEZONE	(UTC) Coordinated Universal Time
PRTG SERVER REGION	Ireland - Europe
PRICING PLAN	Trial Plan
SUBSCRIPTION STATUS	Trial Active
FREE TRIAL DAYS LEFT	10

OPEN PRTG MANAGE

PRTG Hosted Monitor Instance Ready

15. Your PRTG Hosted Monitor instance is now ready. Click Open PRTG to open your PRTG Hosted Monitor instance in the PRTG web interface.

16. Enter your credentials on the [login screen](#) .

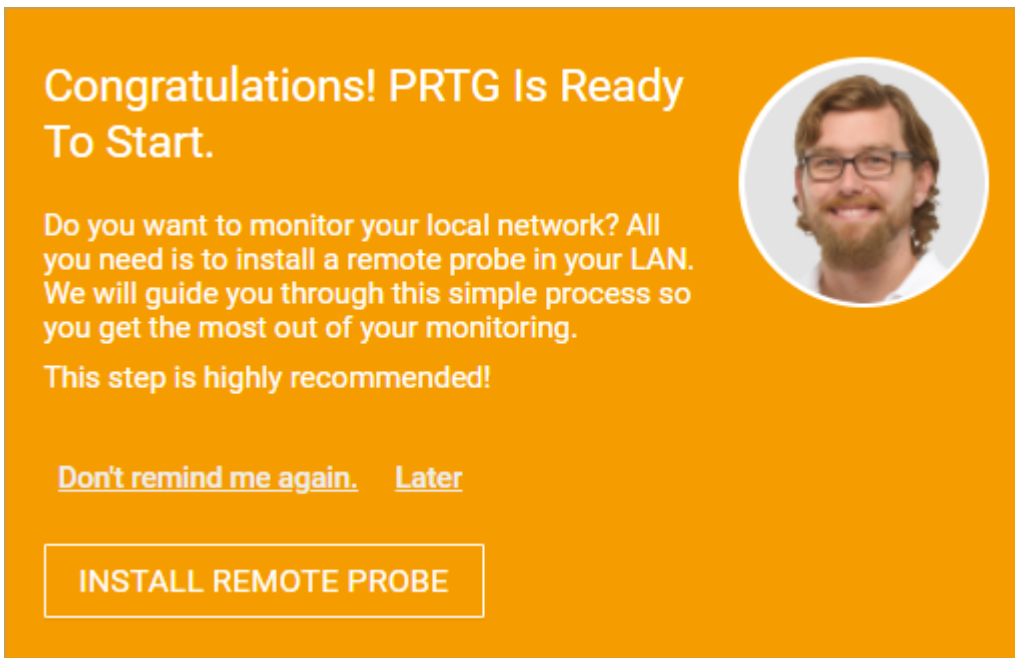


Your PRTG Hosted Monitor instance is now up and running. To open the [device tree](#)¹⁸³, click View Results, or click Devices in the [main menu bar](#)²⁷⁸.

PRTG Hosted Monitor automatically creates a [hosted probe](#)¹³¹ that runs on the hosted instance. It shows several health values of the instance and you can instantly monitor all servers, services, and devices that are publicly available via the internet with the hosted probe.

Smart Setup for PRTG Hosted Monitor

A Paessler employee guides you through the smart setup. In particular, you must install a [remote probe](#)⁴⁵⁰³, which is required for monitoring your LAN. We strongly recommend that you do so.



The image shows a screenshot of a PRTG Smart Setup window with an orange background. The text reads: "Congratulations! PRTG Is Ready To Start." followed by "Do you want to monitor your local network? All you need is to install a remote probe in your LAN. We will guide you through this simple process so you get the most out of your monitoring. This step is highly recommended!". There are two links: "Don't remind me again." and "Later". A large button labeled "INSTALL REMOTE PROBE" is at the bottom. A circular profile picture of a man with glasses and a beard is on the right side.

Smart Setup: Install a Remote Probe

Click Install Remote Probe to start the installation.

■ For more information, see section [Install a Remote Probe](#)^[112].


■ For more information about other steps of the smart setup, see section [Smart Setup](#)^[48] for PRTG on premises.

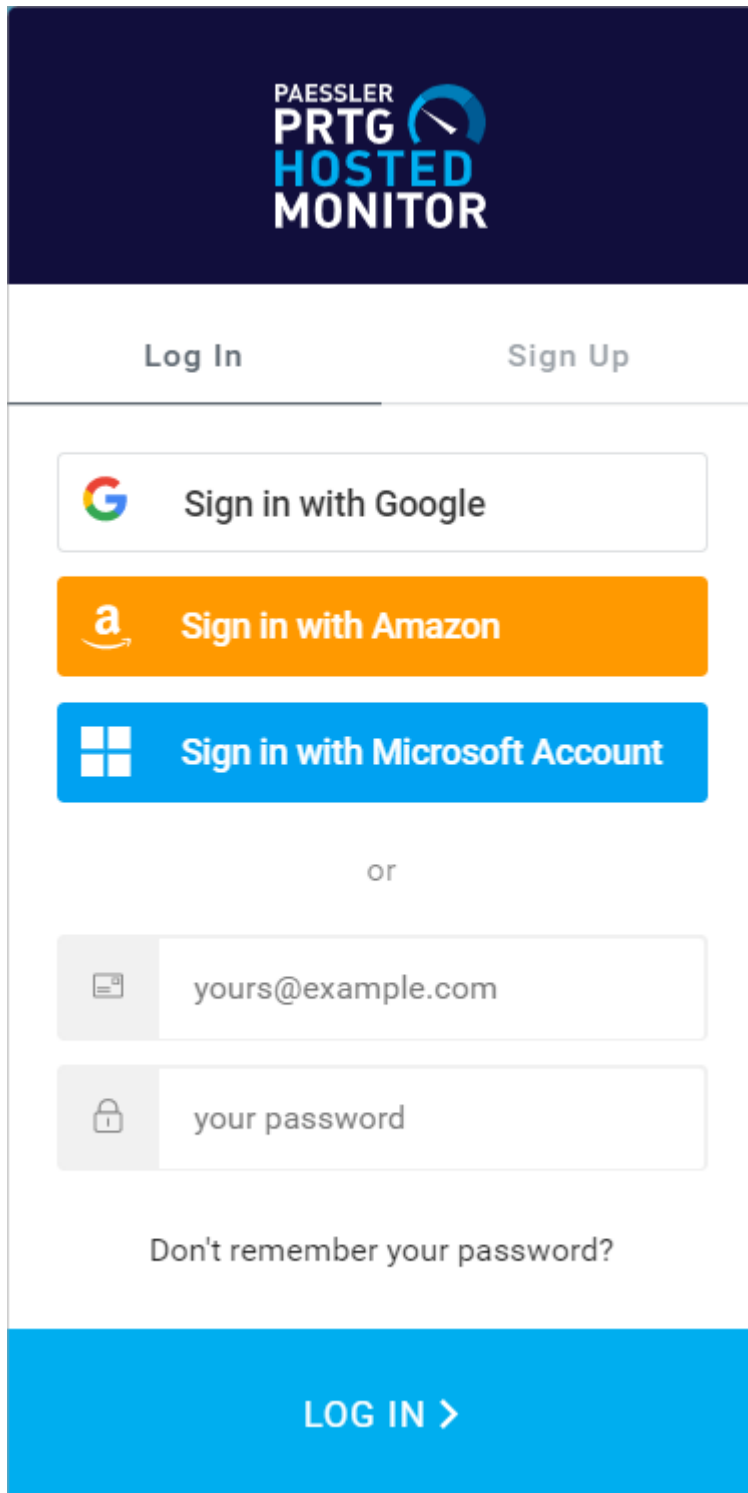
Using PRTG Hosted Monitor

- [Create a PRTG Hosted Monitor Instance](#)^[57]
- [Manage a PRTG Hosted Monitor Subscription](#)^[70]
- [Use Multi-Factor Authentication with PRTG Hosted Monitor](#)^[81]

3.2 Manage a PRTG Hosted Monitor Subscription

PRTG Hosted Monitor offers subscription plans that you can tailor to your needs and that you can manage via the PRTG Hosted Monitor web portal. To manage your subscription, open a web browser, go to the [PRTG Hosted Monitor web portal](#), and log in.

 We recommend that you use Google Chrome 72.



Login Screen

Provide the credentials that you entered when you signed up and click Log In, or use single sign-on (SSO) and continue with your Google, Amazon, or Windows account via the respective button.

In this section:

- [Subscription Overview](#) ⁷¹
- [Manage Subscription](#) ⁷²
 - [Change PRTG Subdomain](#) ⁷²
 - [Change PRTG Timezone](#) ⁷³
 - [Cancel Subscription](#) ⁷⁴
 - [Change Subscription](#) ⁷⁴
- [Account Settings](#) ⁷⁵
 - [Reset Password](#) ⁷⁶
 - [Billing Details](#) ⁷⁷
 - [Payment Details](#) ⁷⁸
- [Invoices](#) ⁷⁹
- [Logout](#) ⁸⁰

Subscription Overview

The screenshot shows the PRTG Subscription Overview page. At the top right, the user is logged in as johnqpublic@example.com. The page title is 'Subscription Overview' with a '+ ADD NEW SUBSCRIPTION' button. A green banner indicates 'INSTANCE READY'. Below this, a table lists subscription details:

PRTG DOMAIN	my-instance.my-prtg.com
PRTG TIMEZONE	(UTC) Coordinated Universal Time
PRTG SERVER REGION	Ireland - Europe
PRICING PLAN	Trial Plan
SUBSCRIPTION STATUS	Trial Active
FREE TRIAL DAYS LEFT	10

At the bottom of the table, there are two buttons: 'OPEN PRTG' and 'MANAGE'.

Subscription Overview

Here you see an overview of your PRTG Hosted Monitor subscription. Click Add New Subscription to upgrade to a commercial subscription, for example. Click Open PRTG to open your PRTG Hosted Monitor instance in the PRTG web interface. Or click Manage to manage your subscription.

Manage Subscription

johnqpublic@example.com

< Manage Subscription

INSTANCE READY

Change PRTG Subdomain

MY-INSTANCE.MY-PRTG.COM
my-instance

Change PRTG Timezone

PRTG TIMEZONE
(UTC) Coordinated Universal Time

Change Subscription

ACTIVE - TRIAL PLAN

500 Active Sensor Limit

Free For 10 Days

6 Days Left

CANCEL SUBSCRIPTION

HOSTED 500	HOSTED 1000	HOSTED 2500	HOSTED 5000	HOSTED 10000
500 Active Sensor Limit	1000 Active Sensor Limit	2500 Active Sensor Limit	5000 Active Sensor Limit	10000 Active Sensor Limit
149\$ / Month	249\$ / Month	549\$ / Month	899\$ / Month	1499\$ / Month
CHANGE SUBSCRIPTION	CHANGE SUBSCRIPTION	CHANGE SUBSCRIPTION	CHANGE SUBSCRIPTION	CHANGE SUBSCRIPTION

By starting a new subscription I accept the transfer of my data for the purpose of invoicing to [Stripe Inc.](#), and [Chargebee Inc.](#)
I accept the monthly payment withdrawal for my PRTG hosted by Paessler subscription. See [terms and conditions](#) and [privacy policy](#) for details.

Manage Subscription

Change PRTG Subdomain

Here you can change your subdomain. The domain name can be anywhere from 4 to 60 characters long.

1. Enter a new domain name such as [myfirstdomain](#). If you enter [myfirstdomain](#) as the domain name, for example, your PRTG Hosted Monitor instance is reachable under [myfirstdomain.my-prtg.com](#).
i If you have remote probes, you must manually change the domain name for the PRTG core server. This corresponds to the Server (IPv4 Address or DNS Name) setting in the [PRTG Administration Tool](#) ⁴³⁷³.

CHANGE YOUR SUBDOMAIN

ⓘ IF YOU HAVE REMOTE PROBES, YOU MUST CHANGE THE DOMAIN FOR THE CORE AS WELL. [READ MORE ABOUT HERE.](#)

ⓘ PLEASE BE PATIENT, IT CAN TAKE UP TO 24 HOURS UNTIL YOUR PRTG INSTANCE IS AVAILABLE UNDER YOUR NEW DOMAIN.

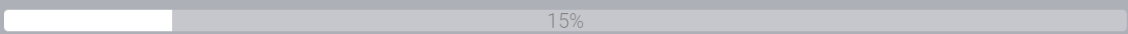
Do you really want to change your subdomain to **myfirstdomain.my-prtg.com**?

[CANCEL](#) [GOT IT](#)

Domain Change

2. Click Got It to continue. You can see the progress in the status bar.

ⓘ This can take a few minutes.

🕒  15%

Domain Change Progress

When the change is complete, the PRTG Hosted Monitor instance is ready.

✅ INSTANCE READY

Instance Ready

Change PRTG Timezone

Here you can change the timezone.

Change PRTG Timezone

PRTG TIMEZONE

(UTC+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna

(UTC-12:00) International Date Line West

(UTC-11:00) Coordinated Universal Time-11

(UTC-10:00) Aleutian Islands

(UTC-10:00) Hawaii

(UTC-09:30) Marquesas Islands

(UTC-09:00) Alaska

Timezone Options

Select a timezone from the dropdown list. You see the following message.

Successfully changed Timezone to (UTC+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna

CLOSE

Timezone Changed

Cancel Subscription

1. Click Cancel Subscription to cancel your PRTG Hosted Monitor subscription.

CANCEL SUBSCRIPTION

ARE YOU SURE YOU WANT TO CANCEL YOUR TRIAL PLAN SUBSCRIPTION?

Trial subscriptions cannot be restored!

CANCEL

GOT IT

Cancel a Subscription

2. Click Got It to finalize the cancellation. You see the following message.

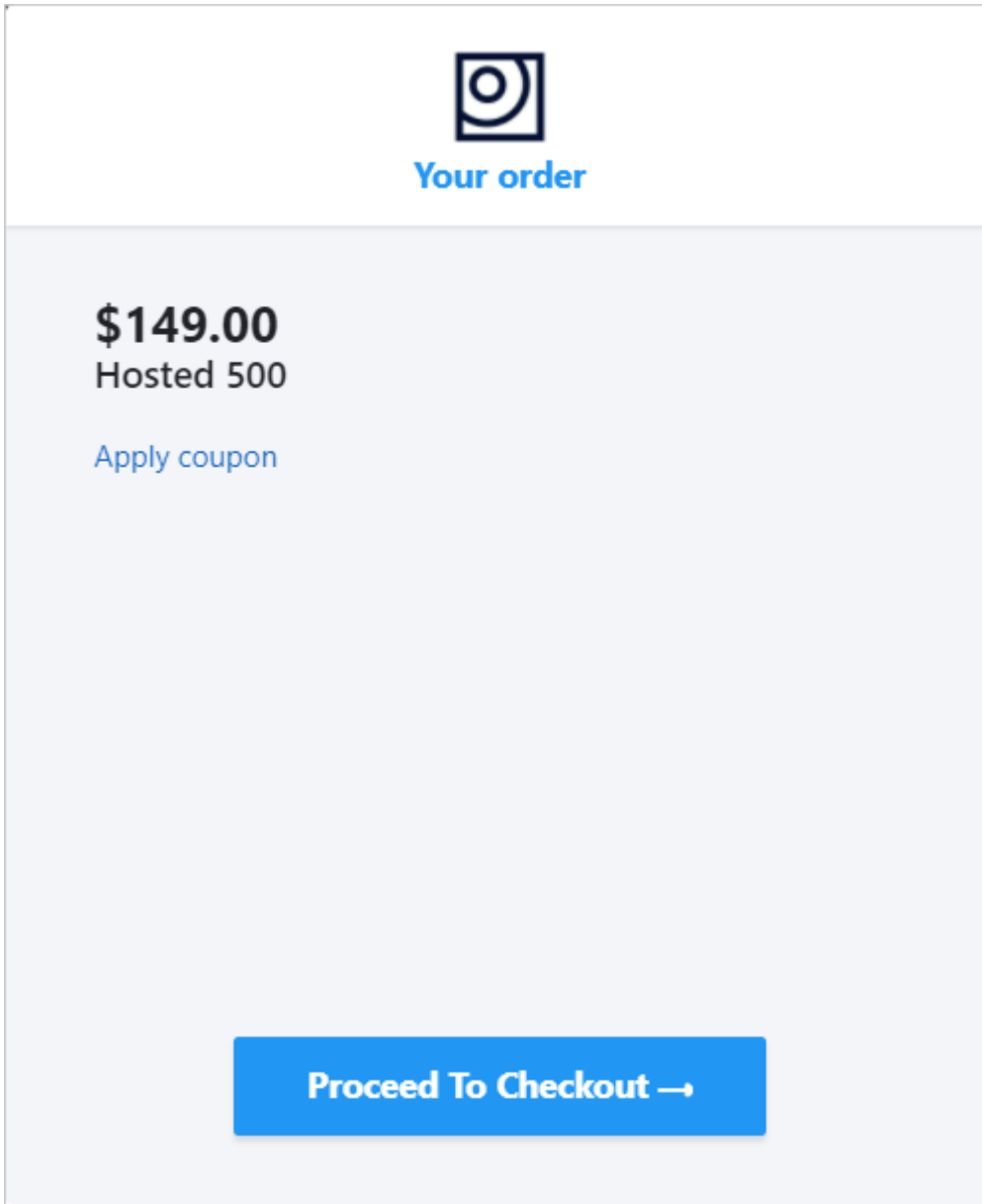
Subscription cancelled

CLOSE

Subscription Cancelled

Change Subscription

1. Click Change Subscription to select a new PRTG Hosted Monitor subscription and to open the payment checkout dialog. You see an overview of your order.



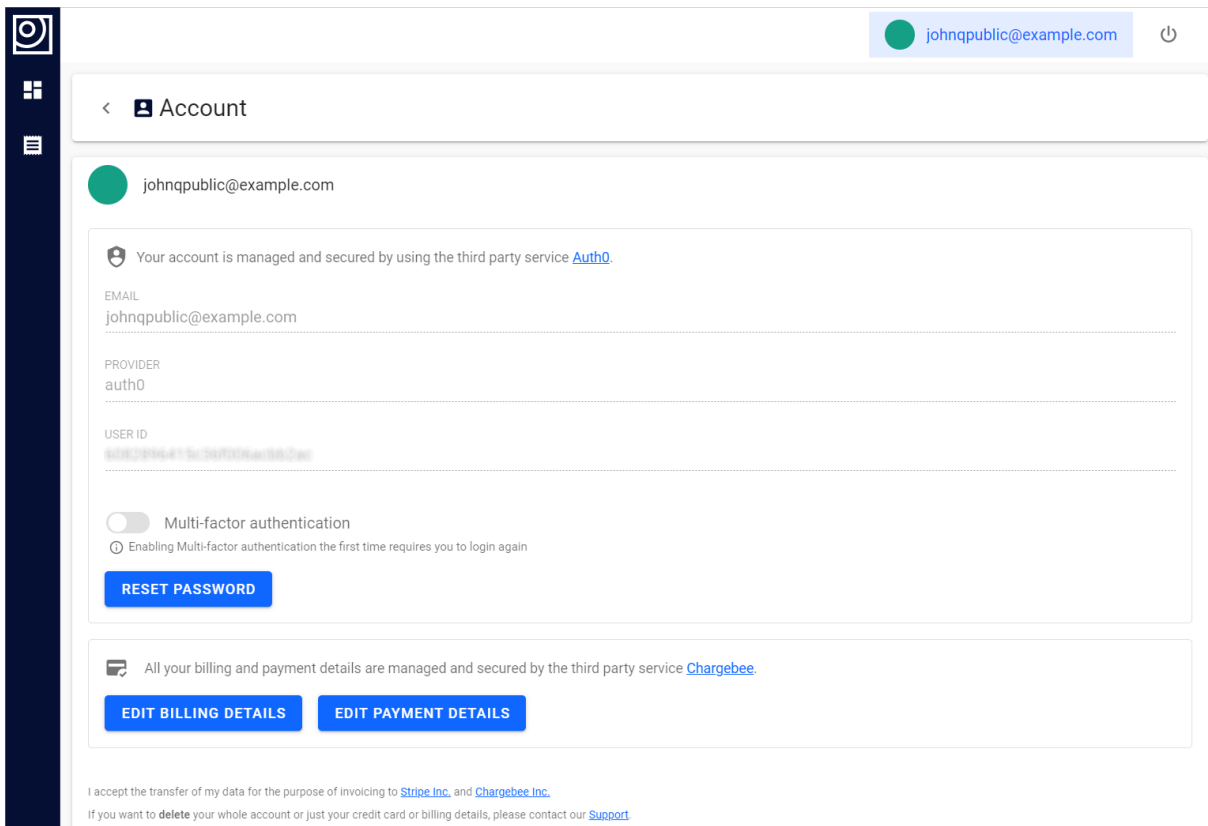
[Change Subscription](#)

2. Click Proceed To Checkout and follow the steps to enter your name, billing address, and credit card information if you did not do so during the creation of your PRTG Hosted Monitor instance.

Account Settings

Click your account in the upper-right corner of the [PRTG Hosted Monitor web portal](#) to open your account settings. Here you can view your profile, change your password, or enable or disable multi-factor authentication.

■ For more information, see section [Use Multi-Factor Authentication with PRTG Hosted Monitor](#)⁸¹.



Account Overview

Reset Password

1. Click Reset Password to change the password for your PRTG Hosted Monitor account. PRTG then notifies you that an email has been sent to your inbox.
2. Go to your inbox and open the email. Click Change Password to go to the change password screen.

PAESSLER
PRTG
HOSTED
MONITOR

Change Password

Enter a new password for
johnqpublic@example.com

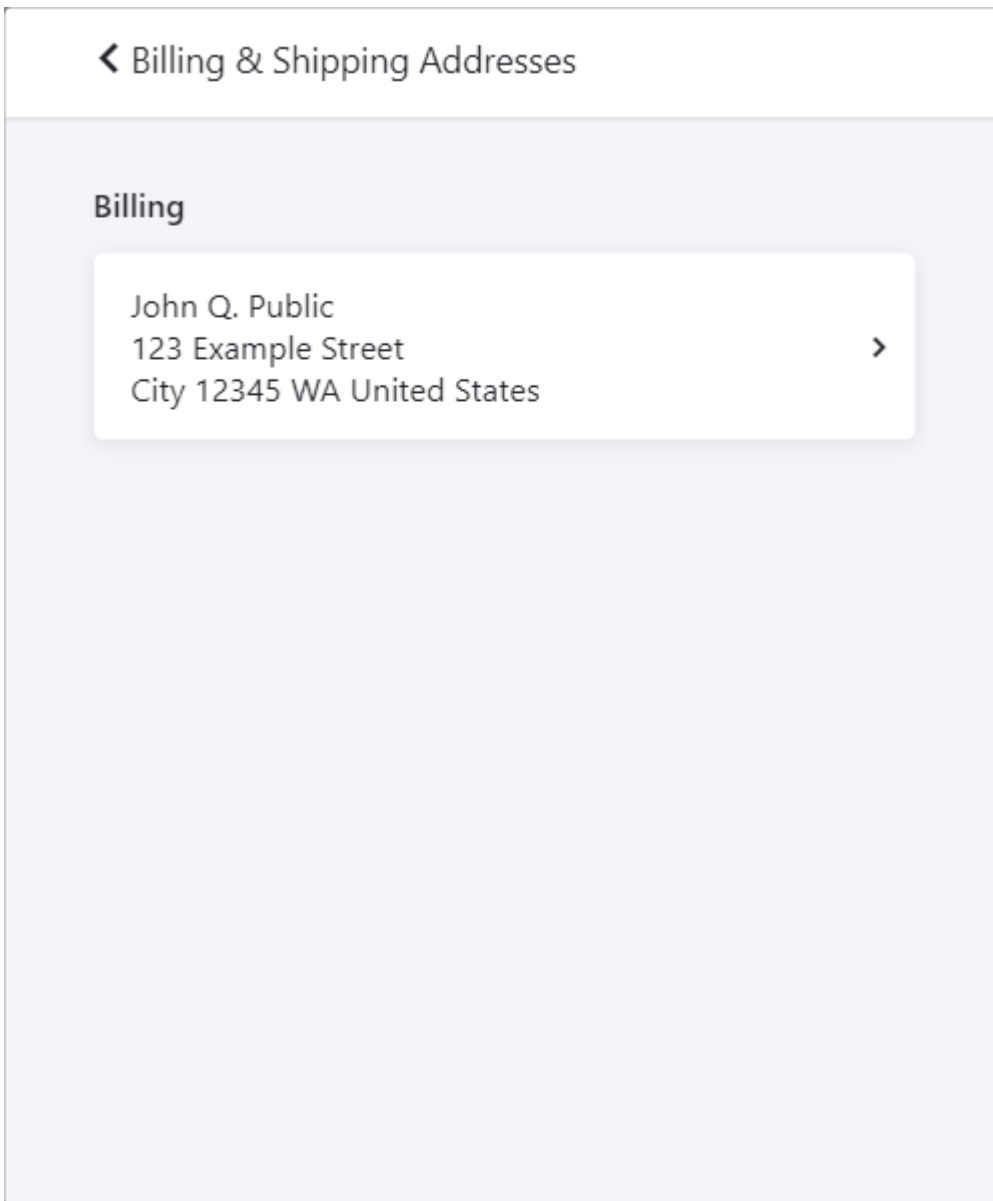
>

Change Password

3. Enter your new password, then enter it again to confirm it.

Billing Details

1. Click Edit Billing Details to change your billing address.



Billing and Shipping Addresses



2. Select the billing address that you want to change.
3. Enter the new information and select Update to change it.

Payment Details

When you purchase a PRTG Hosted Monitor subscription, you need your payment information.


1. Enter your payment details and billing details here to save them for later use or edit details you already entered.

[← Add a payment method](#)

Card Number	
Expiry	CVV 
Address Line1	
Address Line2 (Optional)	
City	Zip
State	Country Pick an option 

I authorize Paessler AG to save this payment method and automatically charge this payment method whenever a subscription is associated with it.

Add

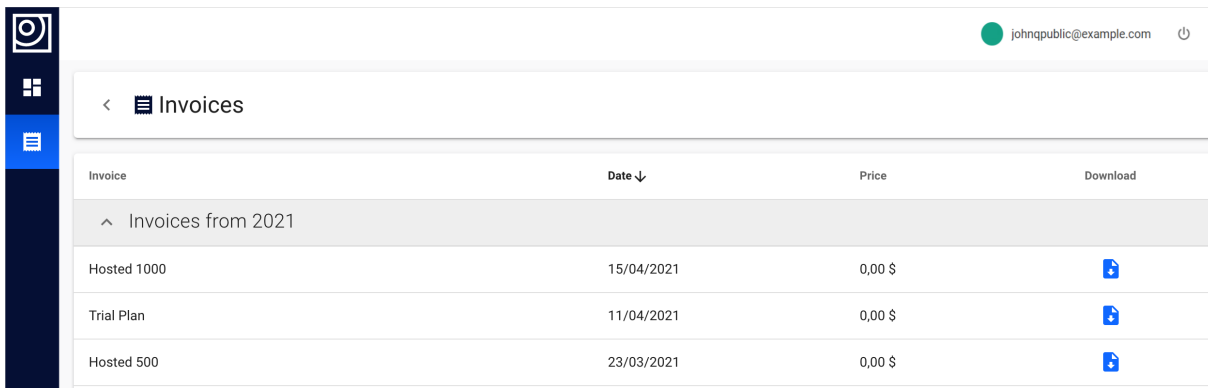
 You may be redirected to your bank page for 3D secure verification.

Add a Payment Method




2. Click Add to add the new payment details.

Invoices

Here you can view and download all of your invoices.



The screenshot shows the 'Invoices' page in the PRTG interface. At the top right, the user is logged in as 'johnqpublic@example.com'. The page title is 'Invoices'. Below the title is a table with columns: Invoice, Date ↓, Price, and Download. A section titled 'Invoices from 2021' contains three rows of data:

Invoice	Date ↓	Price	Download
^ Invoices from 2021			
Hosted 1000	15/04/2021	0,00 \$	
Trial Plan	11/04/2021	0,00 \$	
Hosted 500	23/03/2021	0,00 \$	

Invoices

Logout

Click Logout in the upper-right corner to log out of your PRTG Hosted Monitor account.

Using PRTG Hosted Monitor

- [Create a PRTG Hosted Monitor Instance](#) ⁵⁷
- [Manage a PRTG Hosted Monitor Subscription](#) ⁷⁰
- [Use Multi-Factor Authentication with PRTG Hosted Monitor](#) ⁸¹

3.3 Use Multi-Factor Authentication with PRTG Hosted Monitor

You can use multi-factor authentication with PRTG Hosted Monitor. In combination with an authenticator app that supports the Time-based One-time Password algorithm (TOTP), such as Google Authenticator, you can make your PRTG Hosted Monitor instance even more secure.

☁ Multi-factor authentication is only available in PRTG Hosted Monitor. For more information, see the Knowledge Base: [Can I enable multi-factor authentication for my PRTG Hosted Monitor instance?](#)

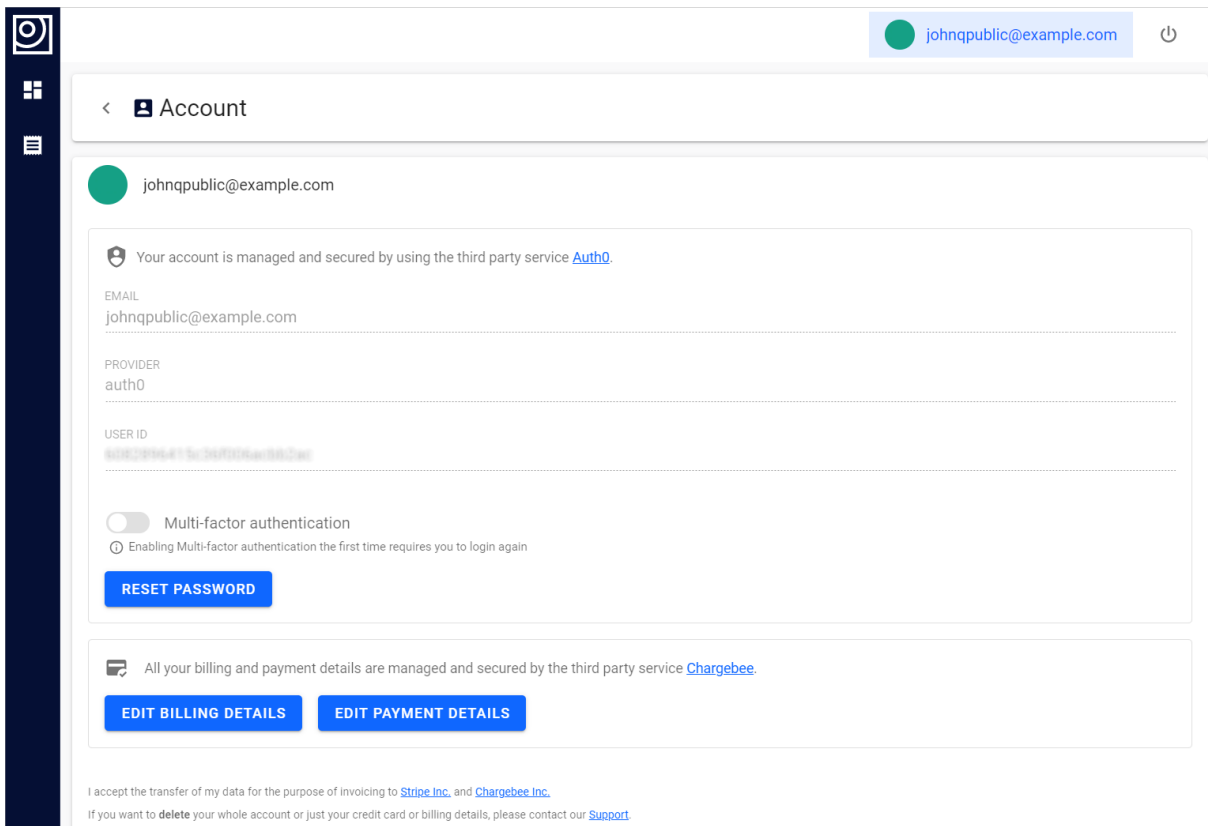
In this section:

- [Initial Setup](#) ⁸¹
- [Manually Enter the QR Code](#) ⁸⁵
- [Log In With Multi-Factor Authentication](#) ⁸⁶
- [Disable Multi-Factor Authentication](#) ⁸⁷
- [Use The Recovery Code](#) ⁸⁸

Initial Setup

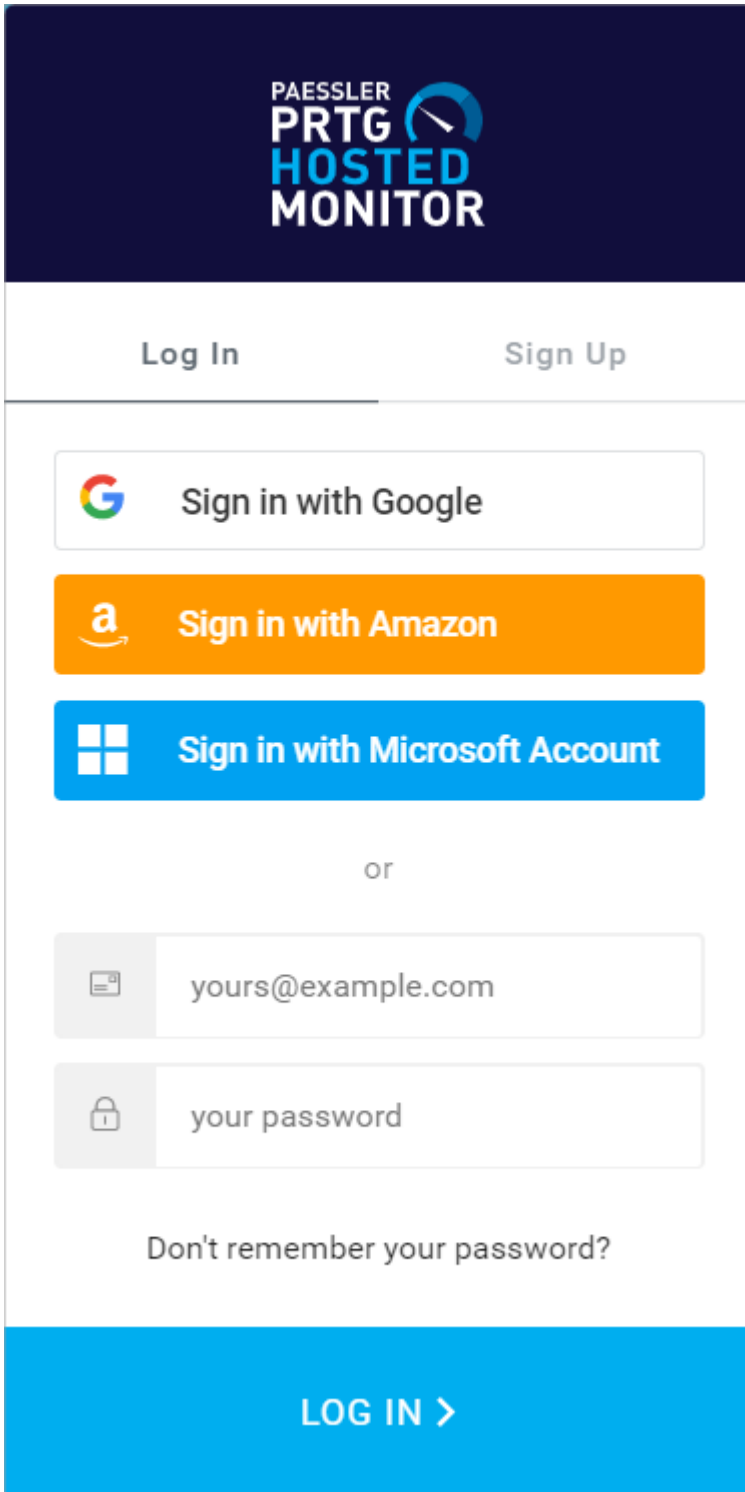
To set up multi-factor authentication for your PRTG Hosted Monitor instance, open a web browser, go to the [PRTG Hosted Monitor web portal](#), and log in. Then click your account in the upper-right corner.

- ① We recommend that you use Google Chrome 72.
- ① You can only enable multi-factor authentication for your own user account. Other users can separately enable or disable it in their settings.




Account Overview


1. To enable multi-factor authentication, click .
 ⓘ If you enable multi-factor authentication for the first time, you must log in again.




PAESSLER
PRTG
HOSTED
MONITOR


Log In Sign Up


 Sign in with Google

 Sign in with Amazon

 Sign in with Microsoft Account

or

 yours@example.com

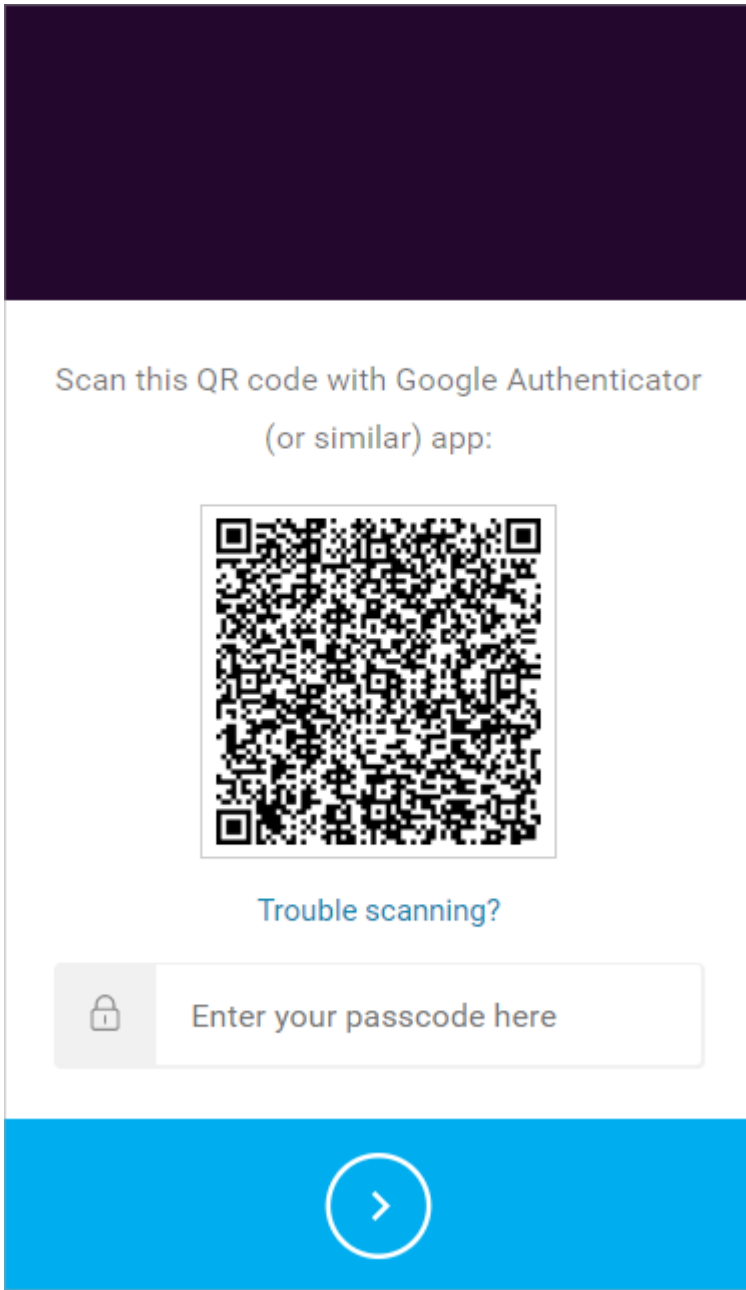
 your password

Don't remember your password?

LOG IN >

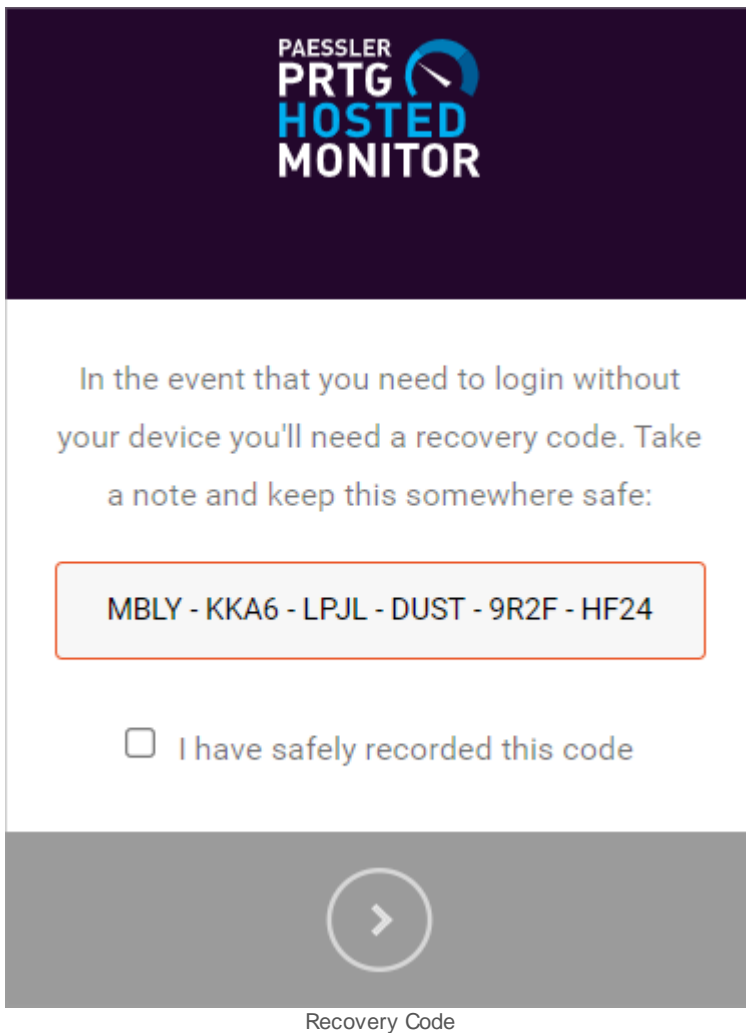
Login Screen




2. Provide the credentials you entered when you signed up and click Log In, or use single sign-on (SSO) and continue with your Google, Amazon, or Windows account via the respective button.



Scan QR Code

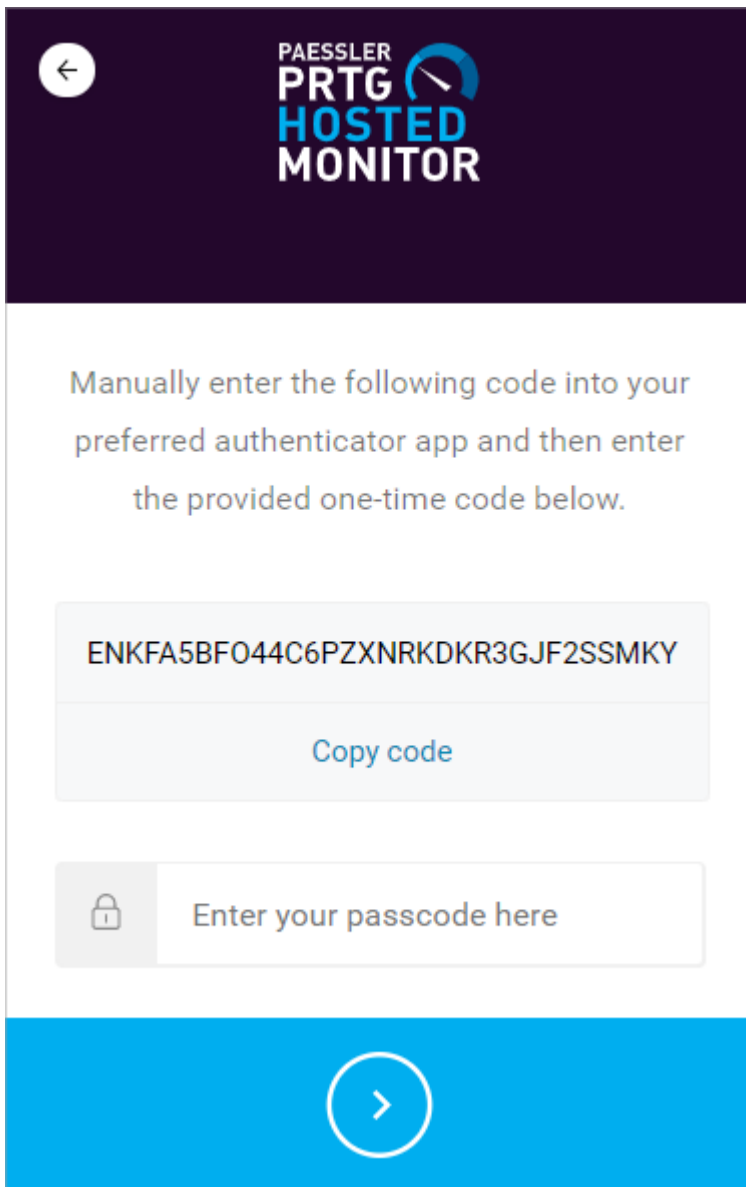
3. Scan the QR code with your authenticator app and enter the passcode from the authenticator app in the field below the QR code.
 - If your authenticator app is unable to scan the code, see [Manually enter the QR code](#) ⁸⁵ for more information.




4. You receive a recovery code. Make sure to save it somewhere safe. Click the check box to confirm that you have safely recorded the code.
5. Click  to log in to the [PRTG Hosted Monitor web portal](#).
-  If you lose your recovery code, [contact the Paessler support team](#) .

Manually Enter the QR Code

1. If your authenticator app is unable to scan the QR code, click Trouble scanning?.

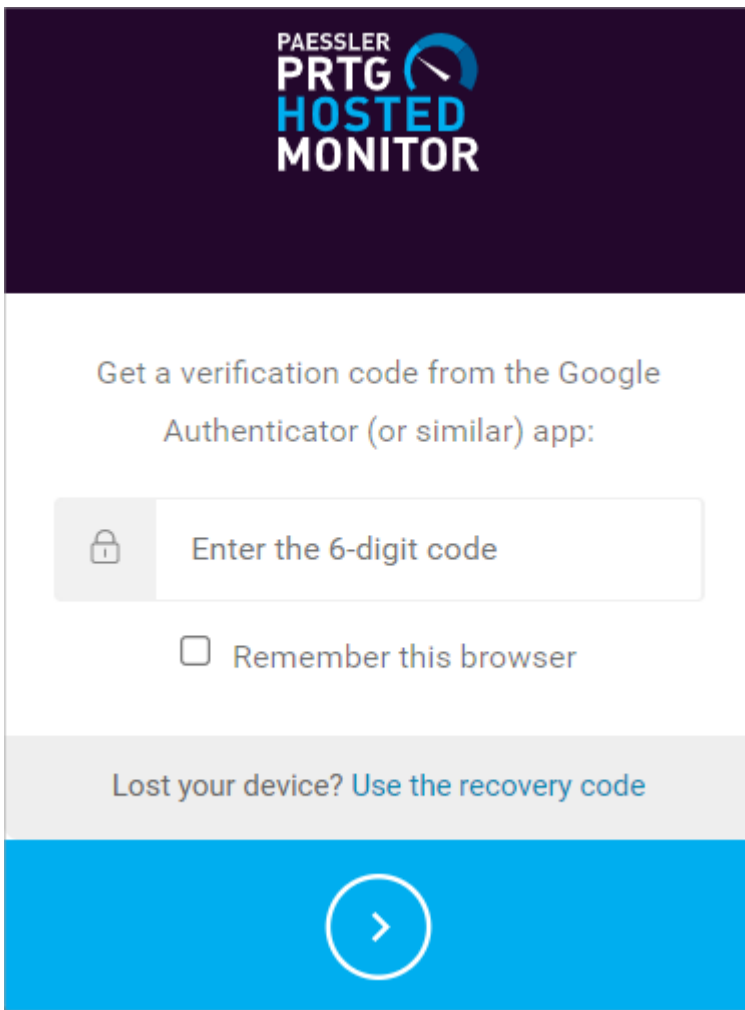


Manually Enter the Code


2. Follow the instructions in your authenticator app to manually enter the code.
3. Enter the one-time passcode that your authenticator app generates in the [Enter your passcode here](#) field.
4. Click  to continue.

Log In with Multi-Factor Authentication

After you set up multi-factor authentication, the next time you log in to the [PRTG Hosted Monitor web portal](#), you see an additional login screen.




Log In With Multi-Factor Authentication

1. Enter the 6-digit code from your authenticator app.
 2. Select the check box next to Remember this browser if you do not want to enter the code in this browser every time you log in.
 - i** This applies for 30 days. If you clear your browsing data such as cookies during this time, it no longer applies.
 3. Click  to continue.
- i** If you lose your device, see [Use The Recovery Code](#)⁸⁸ for more information.

Disable Multi-Factor Authentication

To disable multi-factor authentication, follow these steps:

1. Log in to the [PRTG Hosted Monitor web portal](#).
2. Click your account in the upper-right corner.
3. Click  under Multi-Factor Authentication.

You see the following message.

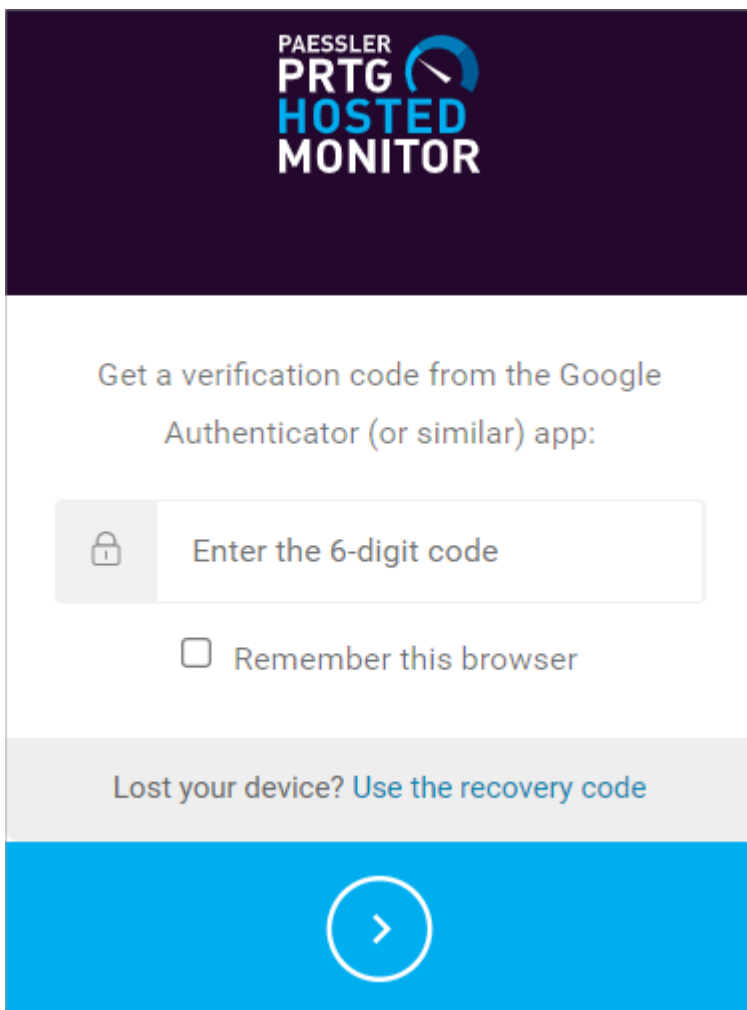
Multi-factor authentication is now disabled. **CLOSE**

Multi-Factor Authentication Now Disabled

The next time you log in to the PRTG Hosted Monitor web portal, multi-factor authentication is no longer enabled.

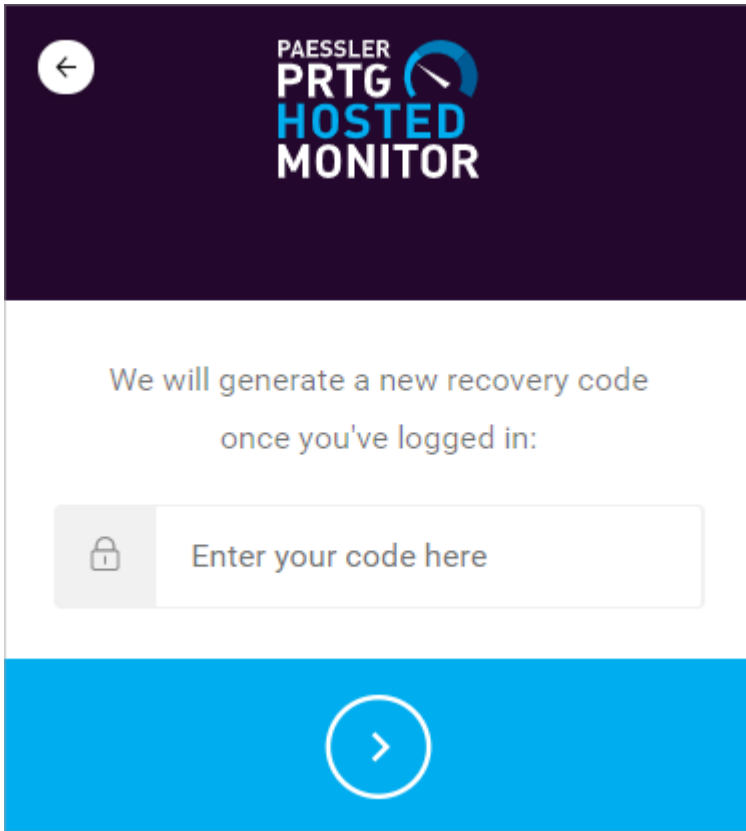
Use The Recovery Code

1. If you lose your device, click Use the recovery code on the login screen.





Log In With Multi-Factor Authentication

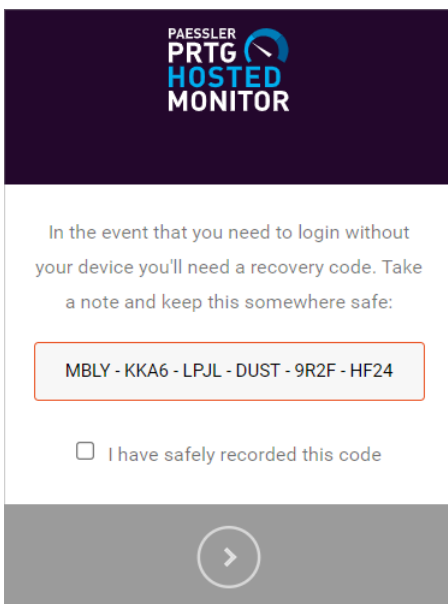
You see the following screen.



Enter Recovery Code

2. Enter your recovery code and click  to continue.
 The recovery code must contain 24 alphanumeric characters.

You receive a new recovery code.



Recovery Code

3. Make sure to save the recovery code somewhere safe. Click the check box to confirm that you have safely recorded the code.

4. Click  to log in to the [PRTG Hosted Monitor web portal](#).

 If you lose your recovery code, [contact the Paessler support team](#) .




More

KNOWLEDGE BASE

Can I enable multi-factor authentication for my PRTG Hosted Monitor instance?

- <https://kb.paessler.com/en/topic/88234>

Using PRTG Hosted Monitor

- [Create a PRTG Hosted Monitor Instance](#) 
- [Manage a PRTG Hosted Monitor Subscription](#) 
- [Use Multi-Factor Authentication with PRTG Hosted Monitor](#) 

Part 4

Installing the Software

4 Installing the Software

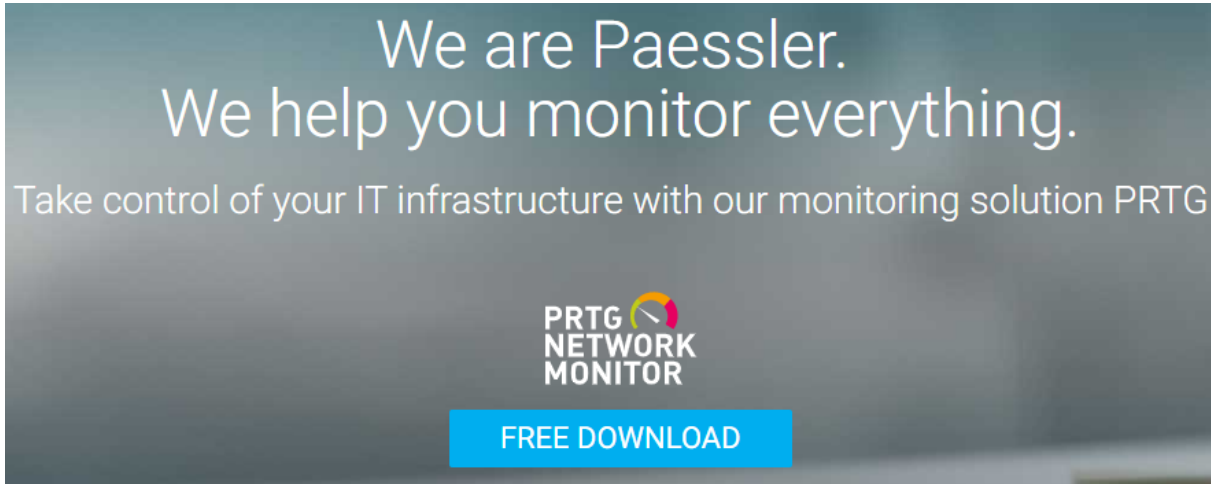
The following sections show you how to download and install PRTG on premises. If you want to use PRTG Hosted Monitor, go straight to section [Create a PRTG Hosted Monitor Instance](#)^[57] to get started.

Installing the Software

- [Download PRTG](#)^[93]
- [Update From Previous Versions](#)^[94]
- [Install a PRTG Core Server](#)^[100]
- [Install a Cluster](#)^[106]
- [Enter a License Key](#)^[107]
- [Activate the Product](#)^[110]
- [Install a Remote Probe](#)^[112]
- [Uninstall PRTG Products](#)^[125]

4.1 Download PRTG

You can find the PRTG installer on the [Paessler website](#). There, you can also log in to the Paessler shop to buy or upgrade your license or to renew your maintenance.



Download PRTG

Download PRTG

Download the latest stable version of PRTG from the [Paessler website](#) as a [trial version](#)^[21].

i Once you have installed PRTG, the [auto-update](#)^[4257] automatically downloads and installs new software versions.

Installing the Software

- [Download PRTG](#)^[93]
- [Update From Previous Versions](#)^[94]
- [Install a PRTG Core Server](#)^[100]
- [Install a Cluster](#)^[106]
- [Enter a License Key](#)^[107]
- [Activate the Product](#)^[110]
- [Install a Remote Probe](#)^[112]
- [Uninstall PRTG Products](#)^[123]

4.2 Update From Previous Versions

If you have a previous PRTG version installed, there are several things you need to consider before you update to the newest PRTG version. See also the [system requirements](#)^[23] for all requirements.

i We recommend that you always have a backup of your monitoring data and configuration. In most cases, both are maintained when you update. Anyway, we recommend a backup before you update. For more information, see the Knowledge Base: [How do I back up all data and configuration of my PRTG installation?](#)

i In certain cases, antivirus software like Windows Defender interferes with the PRTG installer. This might cause high CPU load on the PRTG core server, which might prevent a successful update of PRTG. Temporarily disable Windows Defender and other antivirus software if you have issues when you install PRTG updates.

☁ On PRTG Hosted Monitor instances, the update process is managed automatically, so you do not have to care about updates.

In this section:

- [Update from PRTG 16.1.22 or later](#)^[94]
- [Update from PRTG 13.1.1 through 16.1.21](#)^[95]
- [Removed Sensors as of PRTG 16.2.25](#)^[95]
- [PRTG Web Interface Customizations as of PRTG 13.2.3](#)^[96]
- [Update from PRTG 9 and 12](#)^[96]
- [Update from PRTG 7 or 8](#)^[97]
- [Update from Older PRTG Products](#)^[98]
- [More](#)

Update from PRTG 16.1.22 or later

If you run PRTG 16.1.22 or later, [install](#)^[100] the newest version on top of the previous version. Your configuration is kept. PRTG automatically updates [remote probes](#)^[4503] as well. If you have configured PRTG as a [cluster](#)^[135], you only have to install an update on any cluster node (master node or failover node). PRTG automatically deploys the new version to the cluster.

We recommend that you use the [auto-update](#)^[4257] to install the newest version. Always have a proper backup of your monitoring data as well.


i Important notes:

- PRTG 19.3.52: PRTG does not run on the outdated operating system Windows XP anymore. Make sure that you install PRTG on an [officially supported operating system](#)^[27].
- PRTG 19.1.48: Sensors that require the .NET framework need version .NET 4.7.2 or later. For more information, see the Knowledge Base: [Which .NET version does PRTG require?](#)
- PRTG 18.3.43: PRTG does not start and run on outdated Windows versions like Windows Server 2003 R2 anymore. Make sure that you install PRTG on an [officially supported operating system](#)^[27].

- PRTG 17.3.34: This version comes with a completely rewritten PRTG web interface. If you have customized the PRTG web interface with one of the dedicated files in a previous version, all your customizations are lost as soon as you install PRTG 17.3.34. You have to redo your changes to keep the customizations. For more information, see the Knowledge Base: [How can I re-brand and customize the PRTG web interface using CSS and JavaScript?](#)
- PRTG 16.3.26: The Mobile Web GUI was removed from PRTG.
- PRTG 16.2.25: Several sensors were [removed from PRTG](#)⁹⁵.

Update from PRTG 13.1.1 through 16.1.21

As of PRTG 16.1.22, PRTG is signed with renewed certificates. To seamlessly update to PRTG 16.1.22 or later, an intermediate update is required for the PRTG core server and all probes if you run a version previous to PRTG 16.1.21.1691/1692. If you auto-update from previous versions (lower than PRTG 16.1.21.1691/1692), PRTG automatically installs an intermediate version first. The intermediate version you receive via auto-update or from the Paessler support team is PRTG 16.1.21.1924. You have to perform an additional auto-update to install the newest version. PRTG notifies you with a [ticket](#)²⁴⁰ about this approach. Your configuration is kept.

 We recommend that you use the auto-update to install the newest PRTG version. If you update manually with an installer downloaded from the Paessler online shop, the intermediate update is only necessary if you run a version previous to PRTG 16.1.21.1691/1692 with one or more remote probes or in a cluster. If you do not perform this intermediate update, you have to update your remote probes and cluster nodes manually. [Contact the Paessler support team](#)⁴²⁶ to get the installer for this version if you do not use the auto-update.

- As of PRTG 14, Internet Explorer 9 is no longer officially supported for access to the PRTG web interface.
- Also as of PRTG 14, PRTG core and probes no longer officially support Windows XP and Windows Server 2003 (including SP1 and SP2).
- As of PRTG 15, Internet Explorer 10 is no longer officially supported for access to the PRTG web interface.

Removed Sensors as of PRTG 16.2.25

We removed several sensors from PRTG 16.2.25. Sensors of these types that you still use in your PRTG installation stop monitoring and show a Down status as soon as you update to PRTG 16.2.25 or later. Most of the affected sensors were deprecated in PRTG 16.2.23 or before. You receive tickets from PRTG that inform you if your PRTG setup is affected.

The sensors concerned were used by very few users and/or created substantial load for both the Paessler support team and development team. We believe that the majority of users prefers that we focus on features that many customers use every day rather than spending our precious energy on niche issues.

- For a list of all discontinued sensors, possible alternatives, and more details about this approach, see the Knowledge Base: [Which sensor types will you remove from PRTG and what are the alternatives?](#)

PRTG Web Interface Customizations as of PRTG 13.2.3

As of PRTG 13.2.3, the website subfolder of the PRTG program directory is not used anymore. This means that if you update from a version older than PRTG 13.2.3 to the newest version, all customizations to the PRTG web interface are disabled and you have to revise them. You might find a way for a similar customization that you can add to the files in the webroot subfolder that now contains the PRTG web interface files.

■ For more information, see the Knowledge Base: [What about my web interface customizations as of PRTG 13.2.3?](#)

Update from PRTG 9 and 12

i We strongly recommend that you perform a clean install of the newest PRTG version instead of updating from PRTG 9 or 12.

If you use PRTG 9 or 12 now, your configuration is kept when you install the newest PRTG version in Standalone Mode or when you install a master node. But there are a few things you should consider.

i We recommend that you always have a backup of your monitoring data.

- Intermediate versions: You have to install two intermediate versions before you can update to the newest version.
 - If you run PRTG 12.4.5.3164/3165 or lower, install the intermediate version PRTG 12.4.7.3507 before you proceed.
 - If you have installed version 12.4.7.3507, install the intermediate version PRTG 16.1.21 before you proceed. Afterward, you can seamlessly update to the newest version. For details about this intermediate update, see section [Update from PRTG Network Monitor 13.1.1 through 16.1.21](#)^[95].
 - We recommend that you use the auto-update feature. In this case, PRTG automatically installs the intermediate versions. Run the auto-update three times if you come from a version previous to PRTG 12.4.7.3507, run it twice if you come from a version previous to PRTG 16.1.21.1691/1692. If you do not use the auto-update, [contact the Paessler support team](#)^[4206] to get the installers for these intermediate versions.
- Discontinued sensors: Instances of the following sensors stop working as of PRTG V12 and must be replaced with their successor sensors.
 - VMware Host Server (SOAP)
 - VMware Virtual Machine (SOAP)
 - Xen Virtual Machine

If your configuration contains these sensors, they stop monitoring after you update to the newest version. We recommend that you pause them to keep their data. To continue monitoring, add the sensors anew (for example, via the auto-discovery).

- Install .NET 4.0: We strongly recommend that you install .NET 4.0 on PRTG core server systems (and remote probe systems). Otherwise the following features do not work: [VMware](#)^[4625] auto-discovery and monitoring, [Citrix XenServer](#)^[670] auto-discovery and monitoring, [SIP Options Ping sensor](#)^[2251], Windows Last Update sensor (deprecated as of PRTG 16.x.23).
- Changed Geo Maps provider: When you update to the newest version, the provider for geographical maps automatically switches from Google Maps to MapQuest (using Open Street Map data).

- Windows 2000 not supported: As of PRTG 7, we do not officially support Windows 2000 systems anymore. This means that you cannot install PRTG on systems that run Windows 2000, and you cannot officially monitor Windows 2000 systems (for example, via WMI). However, if you were able to successfully monitor your Windows 2000 systems with PRTG 9, this might actually not be possible anymore with the newest version.
- ⓘ We recommend that you have a look at the [system requirements](#)^[23] before you update. Officially supported operating systems, browsers, and other requirements may have changed since PRTG 9.

Update from PRTG 7 or 8

- ⓘ We strongly recommend that you perform a clean install of the newest version instead of updating from PRTG 7 or 8.

If you use PRTG 7 or 8 now, you have to update PRTG to intermediate versions first to ensure all data is transferred correctly. You cannot update to PRTG 15 or later directly from PRTG 7 or 8.


- We recommend that you first update to the newest PRTG 8 version.
- From the newest PRTG 8 version, update to PRTG version 9.
- From PRTG 9, update to both [intermediate versions](#)^[96] PRTG 12.4.7.3507 and 16.1.21.1691/1692, then to the newest PRTG version.

[Contact the Paessler support team](#)^[4738] to obtain download links for these versions. Always keep a proper backup of your configuration and monitoring data.

Updating from PRTG 7 or 8 to Newest PRTG Version

- Packet Sniffer (Content) sensors are not supported anymore. Sensors of this type automatically switch to Packet Sniffer (Header) sensors after the update. As a benefit, you can now also sniff IPv6 traffic.
- Internet Explorer 8 is no longer supported for access to the PRTG web interface.
- You might experience a slow Enterprise Console (deprecated; former 'Windows GUI') because different reasons.
- When you install a failover node on top of a standalone PRTG 7, 8, 9, 12, or 13+ installation, the configuration cannot be kept and is written to a backup folder. Afterward, the new configuration is received from the master node. As all cluster nodes work with the same configuration, a failover node's old configuration and monitoring data can no longer be used. If you want to keep a configuration of PRTG 7, install the master node on top of the old installation and use other servers for the failover node installations.
- Since PRTG 9, SNMP sensors use the IPv4 Outgoing IP set for the PRTG probe service (this setting was formerly ignored by those sensors, which used the auto setting instead). If you experience sensors that fail, check the setting in the [probe settings](#)^[409].
- If you (manually) configured the PRTG probe service or PRTG core server service to run under a different Windows user account (for example, for successful internet access through an ISA server firewall), apply the respective Windows user account for the PRTG probe service and/or PRTG core server service anew after you install the newest PRTG version.
- For system requirements for the PRTG core server and probes, see section [System Requirements](#)^[23].

- If you use the default data path in your PRTG setup, it is changed automatically. Up to PRTG 8, all data was stored in a subfolder that reflected a PRTG version number (v7 or v8). As of PRTG 9, this subfolder is omitted, and data is stored directly in `%ALLUSERSPROFILE%\Application data\Paessler\PRTG Network Monitor`. During setup, all data is moved to the new directory. If you use a custom data path, it is not changed.
- Up to PRTG 8, all data in the registry was stored in a subkey that reflected a PRTG version number (v7 or v8). As of PRTG 9, this subkey is omitted and registry data is stored directly under the key `HKEY_LOCAL_MACHINE\SOFTWARE\Paessler\PRTG Network Monitor` (on 32-bit systems), respectively `HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Paessler\PRTG Network Monitor` (on 64-bit systems). During setup, all registry values are moved to the new key.

 We strongly recommend that you see the system requirements before you update to the newest version. Officially supported operating systems, browsers, and other requirements may have changed since PRTG 8.


Updating from PRTG 7 to Newest PRTG Version

- Regarding custom sensors, the interpretation of returned values is handled more strictly as of PRTG 8. If you use custom sensors with PRTG 7, these may not work with the newest PRTG version if they do not fully apply to the [API definition](#)⁴³⁸⁹.

Update from Older PRTG Products

For all other predecessor products, a direct data import into the newest version is not possible.

If you use IPCheck 5 or PRTG Traffic Grapher 6, perform a clean installation of PRTG and set up your configuration anew. Use the [auto-discovery](#)²⁹⁶ to quickly configure monitoring of your entire network.

 For more information, see section [Quick Start Guide](#)⁴⁴.

More

KNOWLEDGE BASE

How do I back up all data and configuration of my PRTG installation?

- <https://kb.paessler.com/en/topic/523>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

How can I re-brand and customize the PRTG web interface using CSS and JavaScript?

- <https://kb.paessler.com/en/topic/33>

Which sensor types will you remove from PRTG and what are the alternatives?

- <https://kb.paessler.com/en/topic/68227>

What about my web interface customizations as of PRTG 13.2.3?

- <https://kb.paessler.com/en/topic/44703>

How and where does PRTG store its data?

- <https://kb.paessler.com/en/topic/463>

Updating from version 7, 8, 9, or 12? Read this important message!

- <https://kb.paessler.com/en/topic/35563>

Can I update from PRTG Traffic Grapher or IP Check 5 to the current PRTG version?

- <https://kb.paessler.com/en/topic/26553>

What does error code PE252 mean?

- <https://kb.paessler.com/en/topic/65764>

The signature of my PRTG server is not valid. What can I do?

- <https://kb.paessler.com/en/topic/66308>

I have issues with additional services after updating to PRTG 19.2.50. What can I do?

- <https://kb.paessler.com/en/topic/86103>

Why do I get an error message when trying to restart Windows Server 2019 after a PRTG update?

- <https://kb.paessler.com/en/topic/86854>

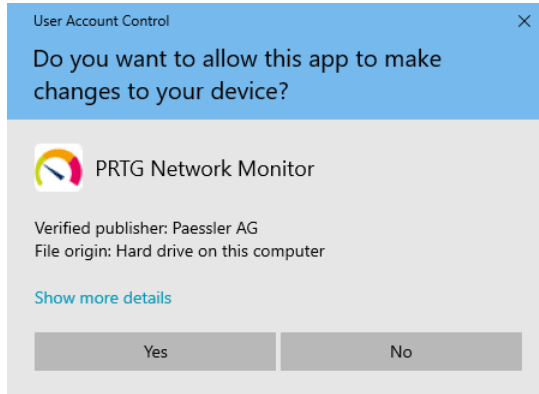
Installing the Software

- [Download PRTG](#) ⁹³
- [Update From Previous Versions](#) ⁹⁴
- [Install a PRTG Core Server](#) ¹⁰⁰
- [Install a Cluster](#) ¹⁰⁶
- [Enter a License Key](#) ¹⁰⁷
- [Activate the Product](#) ¹¹⁰
- [Install a Remote Probe](#) ¹¹²
- [Uninstall PRTG Products](#) ¹²⁵

4.3 Install a PRTG Core Server

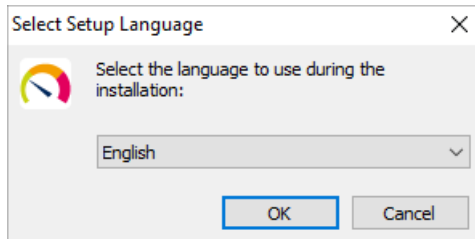
Installing PRTG works like other Windows-based applications. To install PRTG on premises, run the installation setup program from the .zip file that you downloaded.

1. Confirm the question of the [Windows User Account Control](#) with Yes to allow PRTG to install. The installation dialog guides you through the installation process.



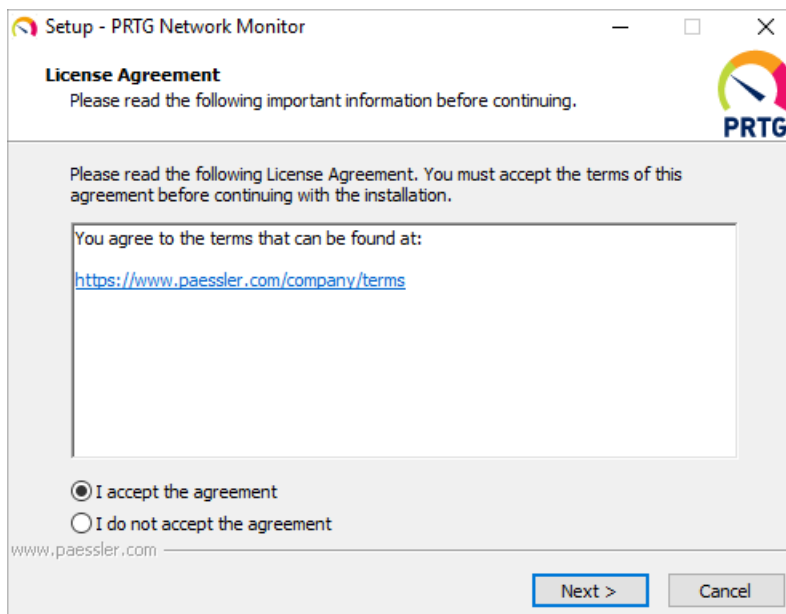
Windows User Account Control Confirmation Request

2. Select a language for the installation and click OK. The available language options depend on both your Windows version and the setup file.



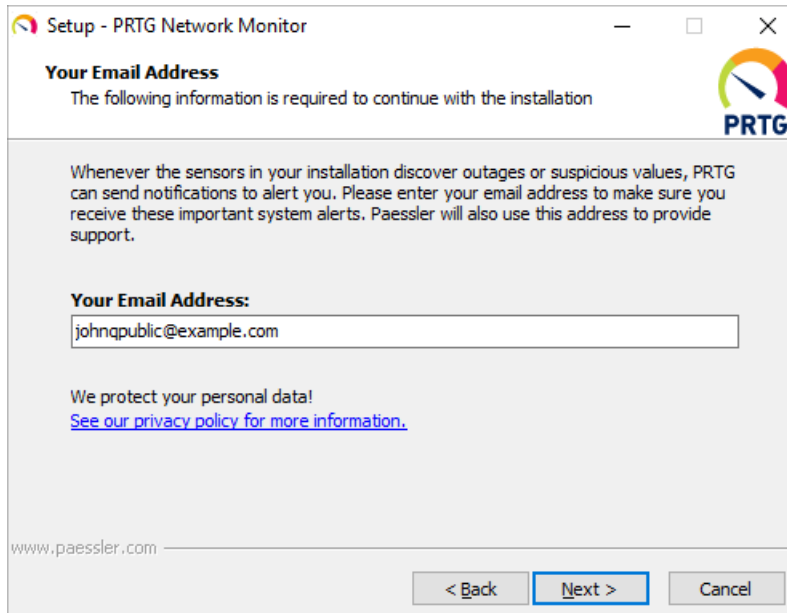
Setup Language Selection

3. Accept the [license agreement](#) and click Next.



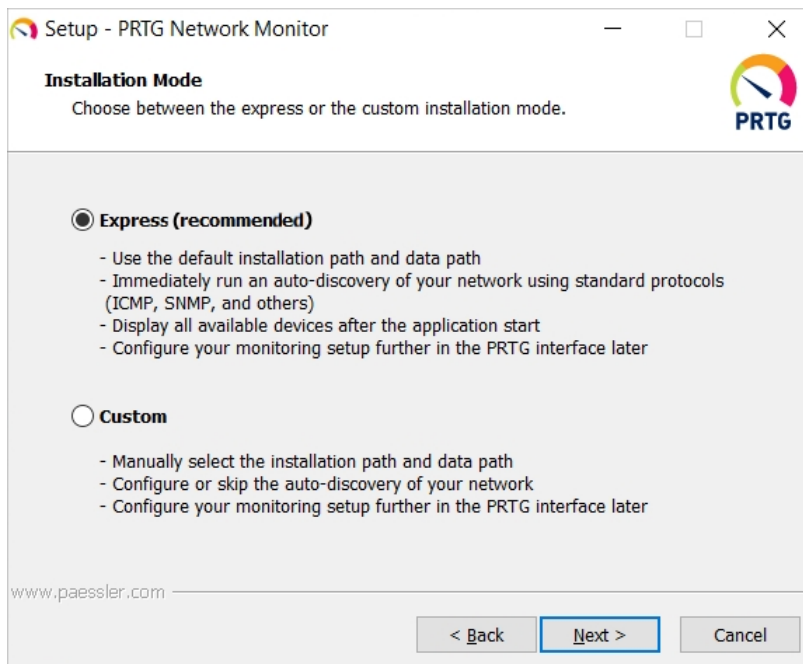
Setup Dialog: License Agreement

4. Enter your email address to make sure you receive important system alerts and click Next.



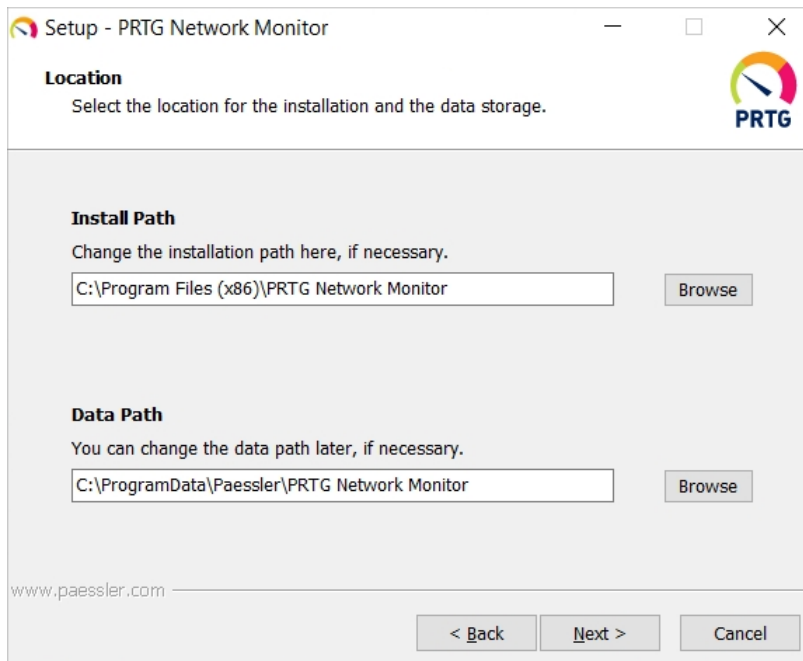
Setup Dialog: Your Email Address

5. Select if you want to use the Express or the Custom installation mode and click Next. If you select the Express installation mode, you can directly proceed with step 9.



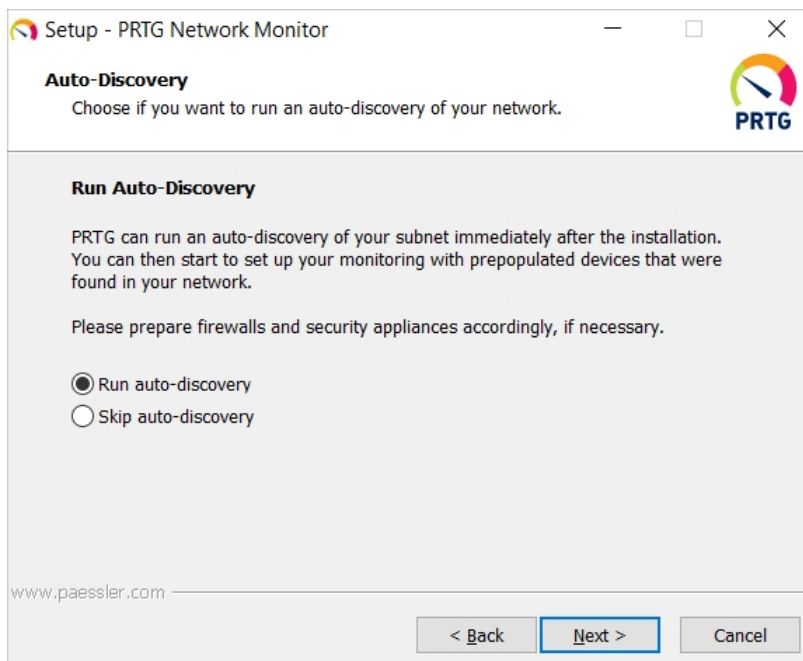
Setup Dialog: Installation Mode

- This page is only visible if you use the Custom installation mode. You can change the paths to the [PRTG program directory and PRTG data directory](#), if necessary. Click Next.



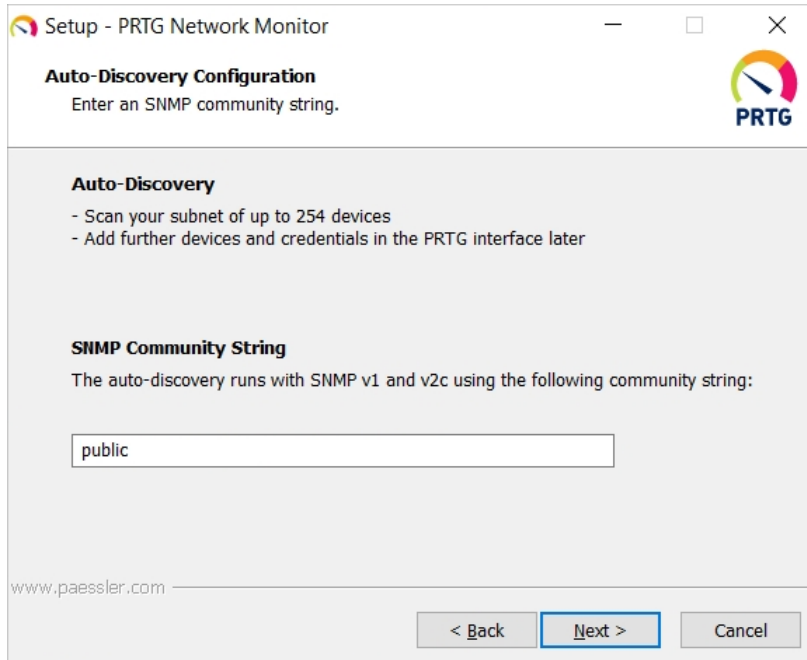
Setup Dialog: Location for Installation and Data Storage

- This page is only visible if you use the Custom installation mode. Select if you want to run an [auto-discovery](#) of your network or if you want to skip the auto-discovery. Click Next.



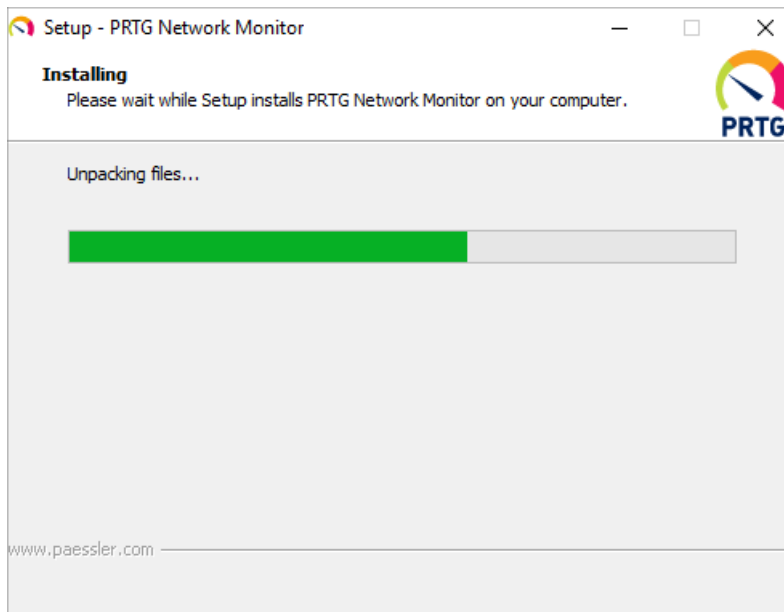
Setup Dialog: Run or Skip Auto-Discovery

- 8. This page is only visible if you select Run auto-discovery. You can enter an Simple Network Management Protocol (SNMP) community string. The default SNMP community string is [public](#). Click Next.



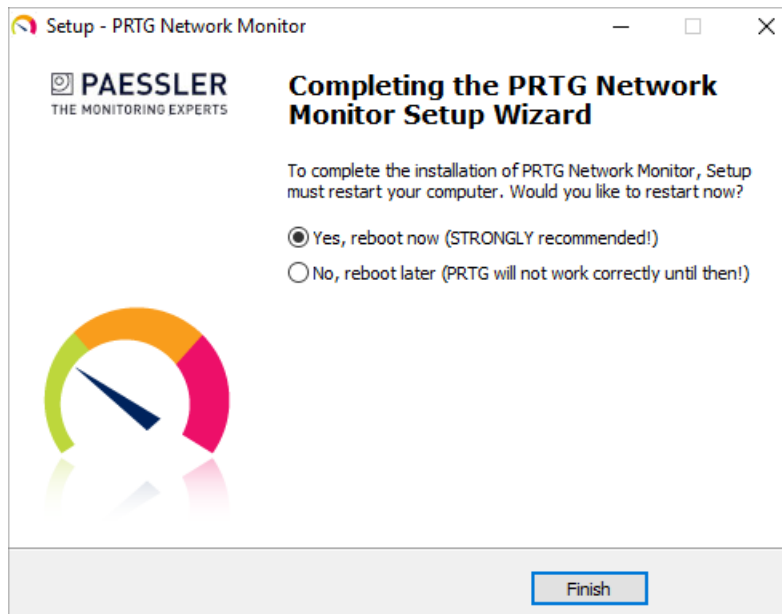
Setup Dialog: Auto-Discovery Configuration

- 9. PRTG is installed on your computer.



Setup: Installing PRTG

10. Select Yes, reboot now to complete the installation of PRTG and use all its functionalities after the restart. Click Finish to complete the setup of PRTG.



Setup: Finish Installation

After installation, you can open the [PRTG web interface](#)^[163] in your system's default browser. Make sure that Google Chrome 72, Mozilla Firefox 65, or Microsoft Internet Explorer 11 is available on the system.

■ For more information, see section [System Requirements](#)^[30].

ⓘ In some cases, antivirus software like Windows Defender interferes with the PRTG installer. This might cause high CPU load on the PRTG core server, which might prevent a successful installation. Temporarily disable Windows Defender and other antivirus software in these cases.

Enter License Information

PRTG validates your license information during the installation process by connecting to the activation server. If there are issues with the trial installation, PRTG asks you for your License Name and Key. In this case, you are directed to our website.

Enter both License Name and License Key exactly as received from Paessler.

■ For more information, see section [Enter a License Key](#)^[107].

If you think that you have correctly entered your license information but get a License Invalid message, contact sales@paessler.com.

ⓘ You can find the label License Owner in some documents from the Paessler shop. License Owner is the same as License Name, for which you might be asked while installing PRTG or when you [change your license key](#)^[107].

ⓘ When you update a commercial version with a new trial installer, PRTG ignores the new trial license key.

More

■ **KNOWLEDGE BASE**

I cannot open the PRTG web interface via the desktop shortcut anymore. What can I do?

- <https://kb.paessler.com/en/topic/89024>

How can I establish a secure web interface connection to PRTG?

- <https://kb.paessler.com/en/topic/273>

PRTG blocks port 80 although I'm using SSL on port 443. How to free port 80?

- <https://kb.paessler.com/en/topic/5373>

■ PAESSLER WEBSITE

Terms and conditions of Paessler AG

- <https://www.paessler.com/company/terms>

Privacy policy

- <https://www.paessler.com/company/privacypolicy>

Installing the Software

- [Download PRTG](#)^[93]
- [Update From Previous Versions](#)^[94]
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- [Enter a License Key](#)^[107]
- [Activate the Product](#)^[110]
- [Install a Remote Probe](#)^[112]
- [Uninstall PRTG Products](#)^[125]

4.4 Install a Cluster

PRTG offers one single failover cluster in all licenses, including the freeware edition. A single failover cluster consists of two machines ([master node](#) and [failover node](#)) that each run one installation of PRTG. They are connected to each other and exchange configuration and monitoring data. You can run a cluster with up to five cluster nodes.

☁ This feature is not available in PRTG Hosted Monitor.

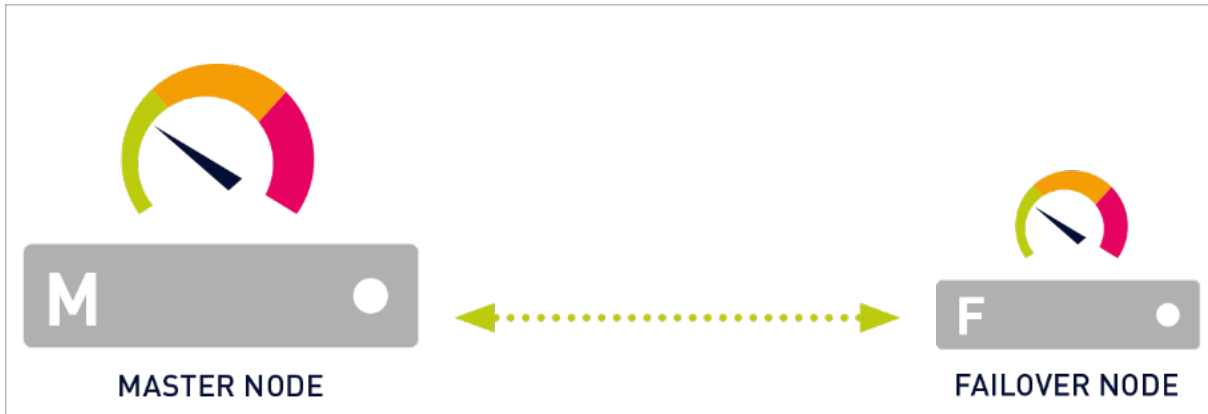


Illustration of a Single Failover Cluster

■ For more information, see section [Failover Cluster Configuration](#) ⁴⁵¹³.

More

■ KNOWLEDGE BASE

What's the clustering feature in PRTG?

- <https://kb.paessler.com/en/topic/6403>

Installing the Software

- [Download PRTG](#) ⁹³
- [Update From Previous Versions](#) ⁹⁴
- [Install a PRTG Core Server](#) ¹⁰⁰
- [Install a Cluster](#) ¹⁰⁶
- [Enter a License Key](#) ¹⁰⁷
- [Activate the Product](#) ¹¹⁰
- [Install a Remote Probe](#) ¹¹²
- [Uninstall PRTG Products](#) ¹²⁵

4.5 Enter a License Key

A license key for PRTG on premises consists of the License Name and a License Key. The key is a string that consists of 8 blocks with 5 characters each.

Your Personal License Information

You have received the License Name and the License Key from Paessler via email or in a license document in the [Paessler Software Shop and Customer Service Center](#). Copy this information and insert it when PRTG asks you to enter your license information in the setup dialog.

- i You can find the label License Owner in some documents from the Paessler shop. License Owner is the same as License Name, for which you might be asked while installing PRTG or when you [change your license key](#)^[107].
- i For the Trial and Freeware Editions, you receive the required license information on the Paessler web page when you download the trial or freeware version of PRTG. For a Commercial Edition, use your commercial license information.

License Information	Example
License Name	ExampleOrganization
License Key	P1000-FFSEJ-ZHGRD-UR1CS-U73FG-G645F-YVF1D-H8323

There are two license key types:

- Trial/Freeware license key: With a Trial license key, you can experience unlimited functionality of PRTG during the 30-day trial period. Your installation automatically switches to a Freeware Edition afterward.
■ For more information about how to get your free Trial edition, see section [Download PRTG](#)^[93].
- Commercial license key: You can only enter this key if you have purchased a commercial license. Your installation allows the number of sensors according to your [license](#)^[21].

During the setup process for installing a Commercial Edition, PRTG asks you to enter your license information. We recommend that you copy and paste your license data. If you install a Trial Edition, you do not have to enter a license key.

Change License Key









Usually, you do not need to manually enter a key after the installation to activate it because PRTG asks for it during the install process. However, there are still scenarios where you need to change your key and activate the respective license. You have to provide your commercial license key, for example, if you have purchased a Commercial Edition and want to upgrade your running Freeware or Trial Edition, or if you upgrade a commercial license to a higher edition.

1. To enter a new license key, log in to the [PRTG web interface](#)^[163].
2. Select Setup | License Information from the [main menu bar](#)^[278].

Sensor count


- <https://www.paessler.com/learn/videos/sensor-count>

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- [Download PRTG](#)  93
- [Update From Previous Versions](#)  94
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- [Install a Cluster](#)  106
- [Enter a License Key](#)  107
- [Activate the Product](#)  110
- [Install a Remote Probe](#)  112
- [Uninstall PRTG Products](#)  125




4.6 Activate the Product

PRTG on premises automatically activates your license via the internet during the installation process. If PRTG cannot directly connect to the internet and therefore cannot access the activation server, you have to manually activate your license.

 You have to complete the product activation process once to use PRTG, otherwise it does not run. Do not forget to activate your commercial license when you want to upgrade your trial or freeware installation.



Online Activation

Usually, you do not need to manually enter a key after the installation to activate it because PRTG asks for it during the install process. However, there are still scenarios where you need to change your key and activate the respective license. You have to provide your commercial license key, for example, if you have purchased a Commercial Edition and want to upgrade your running Freeware or Trial Edition, or if you upgrade a commercial license to a higher edition.

1. To enter a new license key, log in to the [PRTG web interface](#) .
2. Select Setup | License Information from the [main menu bar](#) .
3. Click Change License Key. The Update Your License page appears where you can activate your new license.
4. Select the activation type Automatic (online activation with optional HTTP proxy) if your PRTG core server can connect to the internet.
 -  Without internet access, you have to select Manual (offline activation). The activation process works a bit differently in this case and requires manual interaction.
5. Provide your license information and click Update License.
6. PRTG connects to the Paessler activation server via a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection on port 443 and validates your license.



If everything works fine, you see the message Activation was successful as License Status at the top of the page.

 For more information, see section [License Information: Update Your License](#) .

 The PRTG core server needs an internet connection on port 443 to activate. If a proxy connection is needed, configure it in [step 3](#)  on the Update Your License page. If the activation fails, you can also try an offline activation.

Offline Activation

If no internet connection is available, you have to activate PRTG manually.

1. In the PRTG web interface, select Setup | License Information from the main menu bar.
2. Click Change License Key. The Update Your License page appears where you can activate your license.
3. Select the activation type Manual (offline activation) if your PRTG core server cannot connect to the internet.
4. Provide your license information and follow the instructions in [step 3](#)  and [step 4](#) .

5. Click Update License.

If the activation was successful, you see the message Activation was successful as License Status at the top of the page.

■ For more information, see section [License Information: Update Your License](#)⁴²⁵³.

i If your PRTG core server is offline, you need to manually activate your license after you renew your maintenance. This ensures that you can install updates, for example. Your maintenance information has to fit the PRTG installer, so you need to activate your license offline before you install an update.

More

■ KNOWLEDGE BASE

Which servers does PRTG connect to for software auto-update, activation, etc.?

- <https://kb.paessler.com/en/topic/32513>

Installing the Software

- [Download PRTG](#)⁹³
- [Update From Previous Versions](#)⁹⁴
- [Install a PRTG Core Server](#)¹⁰⁰
- [Install a Cluster](#)¹⁰⁶
- [Enter a License Key](#)¹⁰⁷
- [Activate the Product](#)¹¹⁰
- [Install a Remote Probe](#)¹¹²
- [Uninstall PRTG Products](#)¹²⁵

4.7 Install a Remote Probe

Remote probes can extend your monitoring with PRTG.

- With remote probes, you can monitor different subnetworks that are separated from your PRTG on premises core server by a firewall, and you can keep an eye on remote locations. You can install [one or more remote probes](#)^[4503].
- Remote probes are useful if you want to distribute monitoring load by taking it from the PRTG core server system and putting it on one or more remote probe systems.
- You need a remote probe if you want to monitor your local network using a PRTG Hosted Monitor instance.

i PRTG automatically updates remote probes but, in rare cases, you have to manually update remote probes. You receive a [ToDo ticket](#)^[240] in this case. Follow the steps [below](#)^[112] to manually update remote probes.

i If you run PRTG in a cluster, see [Cluster and Remote Probes Outside the LAN](#)^[115] in this section.

■ If you have issues after the installation, see section [Debugging Remote Probe Connection Issues](#)^[127].

■ For a partially automatic installation of a remote probe directly from the device tree in the PRTG web interface, see section [Remote Probe Setup via Device Tools](#)^[4507]. For a quick installation guide, see the Paessler Website: [How to install a PRTG remote probe in 4 steps](#).

Steps to Take

To install a remote probe with the Remote Probe Installer, follow these steps:

- [Step 1: Meet the Requirements](#)^[112]
- [Step 2: Prepare the PRTG Core Server](#)^[113]: start here if you use PRTG on premises
- [Step 3: Download the Remote Probe Installer from the PRTG Web Interface](#)^[115]: start here if you use PRTG Hosted Monitor
- [Step 4: Install a New Remote Probe](#)^[116]
- [Step 5: Approve the New Remote Probe](#)^[119]

Step 1: Meet the Requirements

To install a remote probe on a computer, make sure that you meet the following requirements.

- The target computer runs the operating system Windows 7 or later.
- The target computer is accessible through remote procedure call (RPC). This is usually the case when your PRTG core server and the target computer are located in the same LAN segment. Otherwise, open Windows [services.msc](#) on the target computer and start the RPC service.
- Programs are allowed to communicate through your Windows Firewall. Open the settings of your firewall and select Allow an app through firewall. Mark the check box for Remote Service Management, and the check box Public in the corresponding line.

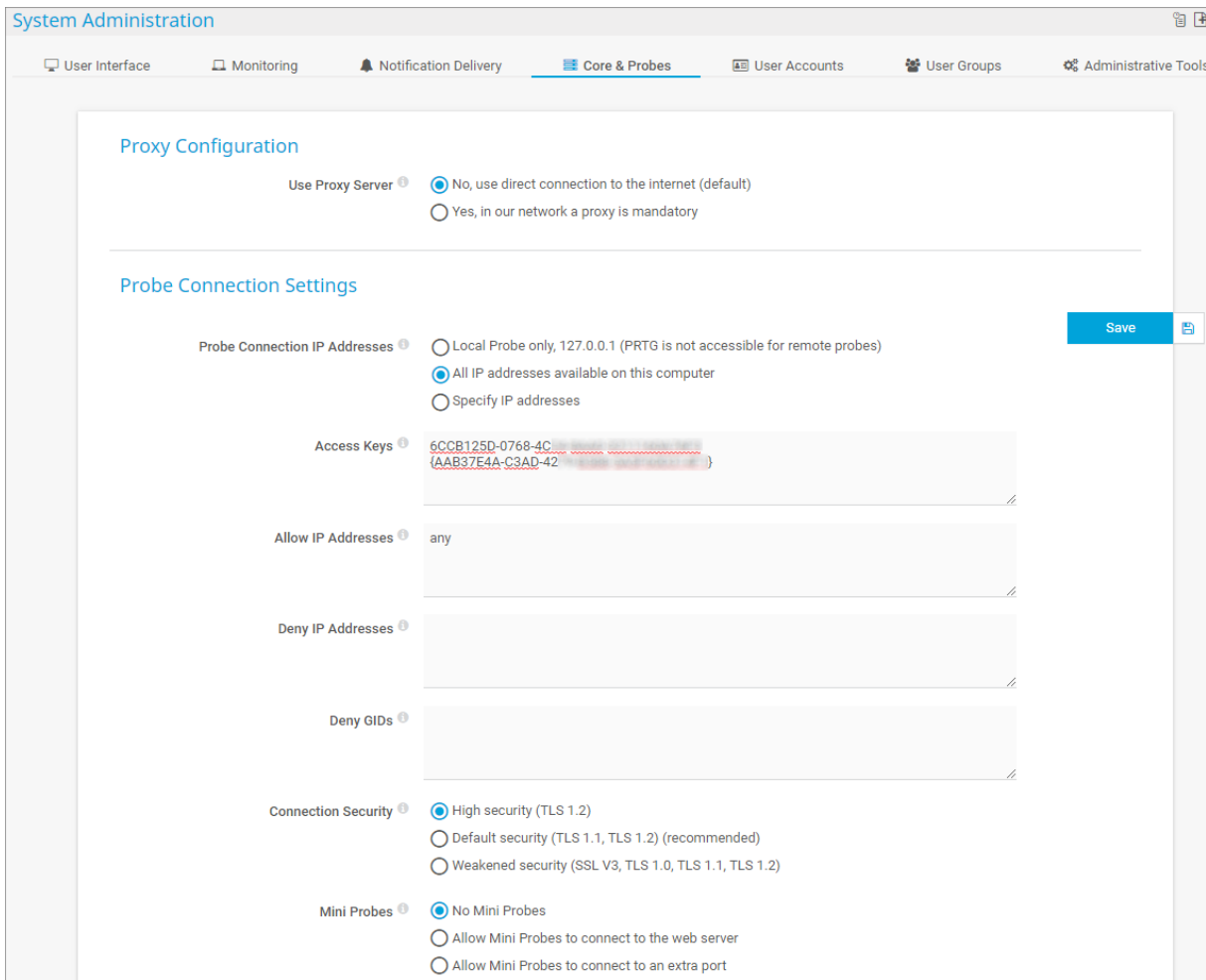
- Connections between remote probes and the PRTG core server require port [23560](#). Make sure that on your PRTG core server side, this port is not blocked by firewall rules, and, on the remote probe side, the Transmission Control Protocol (TCP) port [23560](#) is open for outgoing connections as well.
 - If you need to set a different port (not recommended), see the Knowledge Base: [How can I customize ports for core-probe connections used by PRTG?](#)
- ⓘ Your PRTG on premises or PRTG Hosted Monitor installations already include a local probe or hosted probe on the PRTG core server. This is why you cannot additionally install a remote probe on your PRTG core server system.
 - For more information on the requirements for remote probes, see section [System Requirements](#) ²⁴.

Step 2: Prepare the PRTG Core Server

If you use PRTG Hosted Monitor, you can start with [Step 3: Download the Remote Probe Installer from the PRTG Web Interface](#) ¹¹⁵ right away.

- ⓘ Because your remote probe needs to connect to your PRTG core server, PRTG needs to accept incoming remote probe connections. So, with PRTG on premises, first prepare your PRTG core server before you install the remote probe.

Edit the relevant settings in section [Core & Probes](#) ⁴²⁰². From the main menu in the [PRTG web interface](#) ¹⁶⁴, select Setup | System Administration | Core & Probes to access the probe settings and go to the Probe Connection Settings.



Probe Connection Settings in System Administration

Step 2.1: Probe Connection IPs

By default, a PRTG core server accepts connections from the Local Probe only (IP address [127.0.0.1](#)). This setting is the most secure setting, but it does not allow any remote probes to connect to your PRTG core server.

To accept remote probes, select one of the following settings:

- All IP addresses available on this computer: Any IP on your PRTG core server system accepts incoming probe connections.
- Specify IP addresses: Specify selected IP addresses that accept incoming connections.

Step 2.2: Allow IP Addresses

In the Allow IP Addresses field, you can enter the IP address of the computer on which you want to install a remote probe. You can also enter the word [any](#). This sets the PRTG core server to accept remote probe connections from any IP address.

i If you use [any](#), make sure that you only write the word in lower case. Any other variations are not valid.

Changing other settings is not required. For details about the fields for Access Keys, Deny IP addresses, and Deny GIDs, see section [Core & Probes](#)^[4204].

When you are done, click Save to save your settings.

i If you change this setting, PRTG needs to restart the PRTG core server to apply your changes. After clicking Save, a dialog box appears that asks you to confirm the restart. Click OK to trigger the restart. During the restart, all users of the PRTG web interface, of [PRTG Desktop](#)^[4275], or of [PRTG Apps for Mobile Network Monitoring](#)^[4276] are disconnected and reconnected.

i To edit the core–probe connection settings, you can also use the [PRTG Administration Tool](#)^[4347] on your PRTG core server.

Cluster and Remote Probes Outside the LAN

i If you run PRTG as a cluster and you want to run remote probes outside your local network, you have to make sure that your cluster nodes and the addresses they use are reachable from the outside. Check your cluster node settings under [Cluster](#)^[4229] before you install a remote probe outside your local network. Enter valid addresses (Domain Name System (DNS) names or IPs) for both cluster nodes to reach each other and for remote probes to individually reach all cluster nodes. Remote probes outside your LAN cannot connect to your cluster nodes if they use local addresses.

If you already have a remote probe installed outside your LAN and the remote probe is disconnected because of this, follow these steps:

1. Uninstall the remote probe.
2. Update the [cluster node settings](#)^[4230] with addresses that are reachable from outside your LAN.
3. Restart your PRTG core servers.
4. Install the remote probe again. It then obtains the IP address or DNS name entries that it can reach.

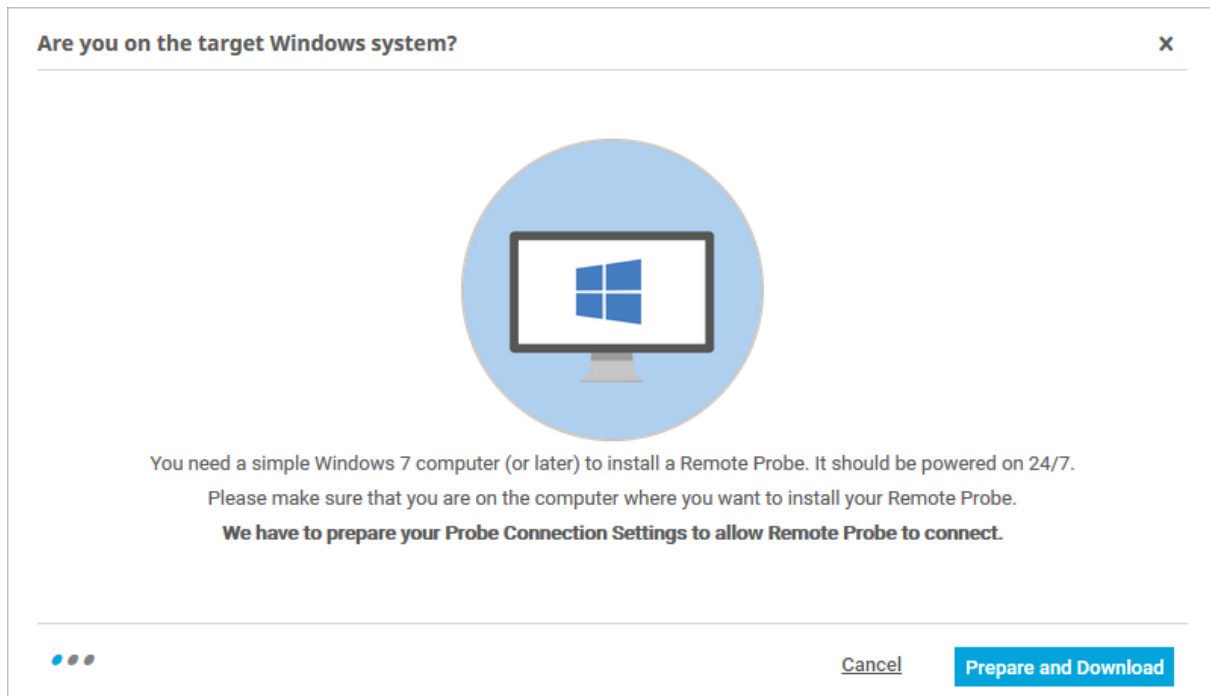
■ See also section [Failover Cluster Configuration](#)^[4515], section Remote Probes in a Cluster.

Step 3: Download the Remote Probe Installer from the PRTG Web Interface

1. On the computer on which you want to install a remote probe, log in to the PRTG web interface.
2. From the main menu bar, select Setup | Optional Downloads | Remote Probe Installer.
3. Click Add Remote Probe to start the installation assistant.
 - i** The Add Remote Probe button is also available in the device tree.
4. Wait until the installation is completed. The remote probe then automatically connects to your PRTG core server.
5. In the appearing dialog window, click Prepare and Download to start the download.
6. Save the setup program to your local disk.

In the installation approach with the assistant, PRTG guides you through the installation process. If you Download the Remote Probe Installer directly, you have to install the remote probe without the assistant.

■ If you connect your remote probe to a PRTG on premises instance, [prepare](#)^[113] your Probe Connection Settings first.

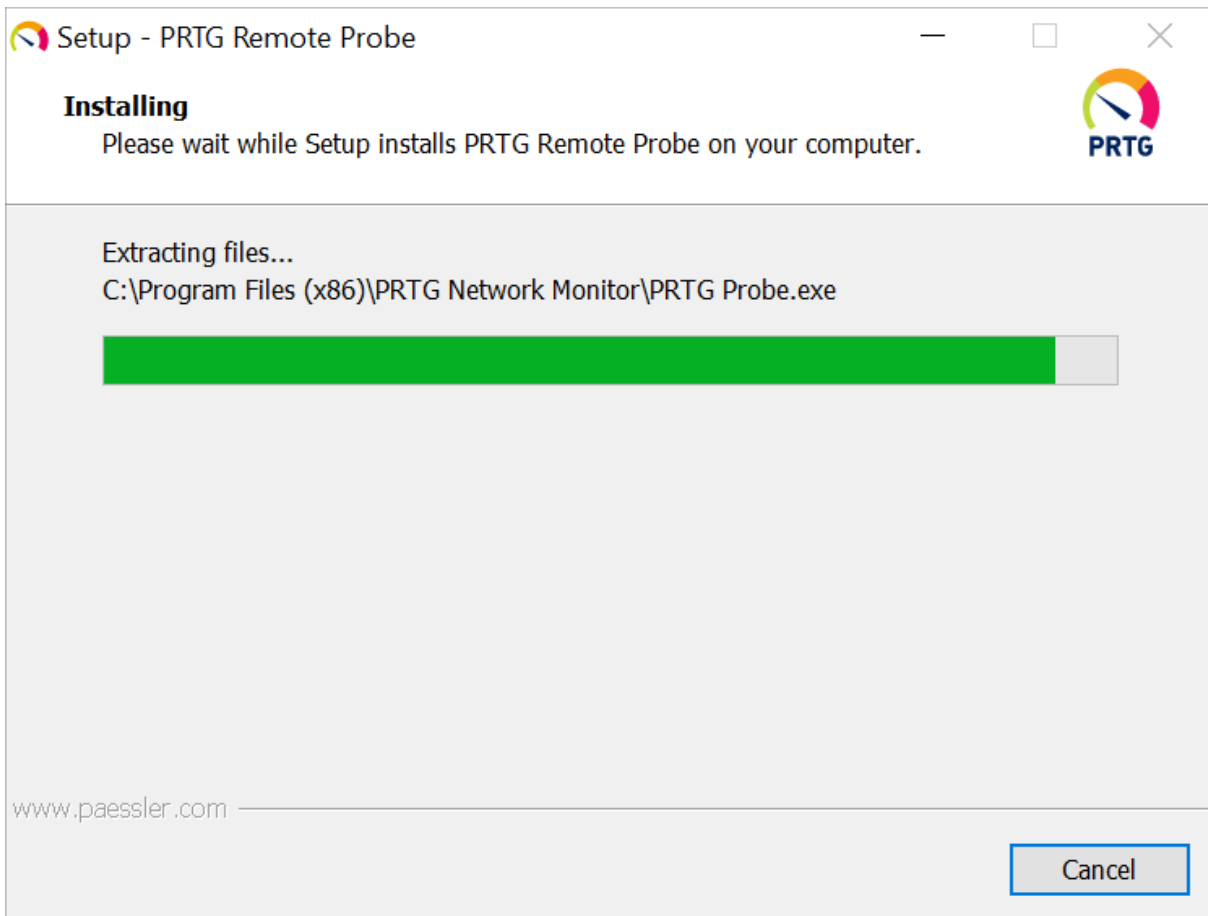


Add Remote Probe Assistant

i The PRTG version numbers of the PRTG core server service and PRTG probe service must match. PRTG automatically updates remote probes when you install a new version on the PRTG core server. If PRTG advises you to manually update your remote probe, open a web browser on the remote computer and download the remote probe installer as described in this section.

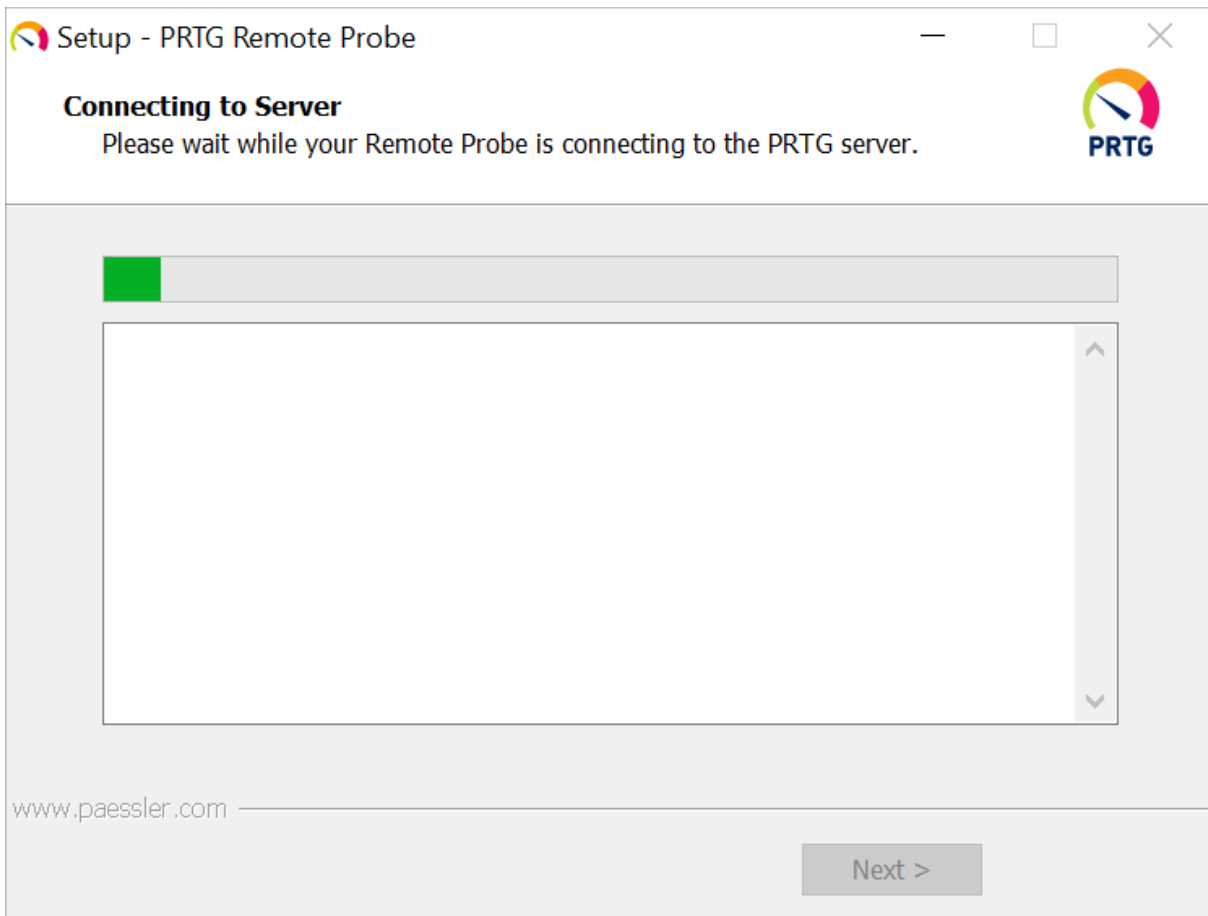
Step 4: Install a New Remote Probe

1. Execute the setup program that you downloaded.
2. Confirm the Windows [User Account Control](#) dialog with Yes to allow the installation. The usual software installation wizard guides you through the installation process.
3. Click Install to start the installation process.



Remote Probe Setup Installing

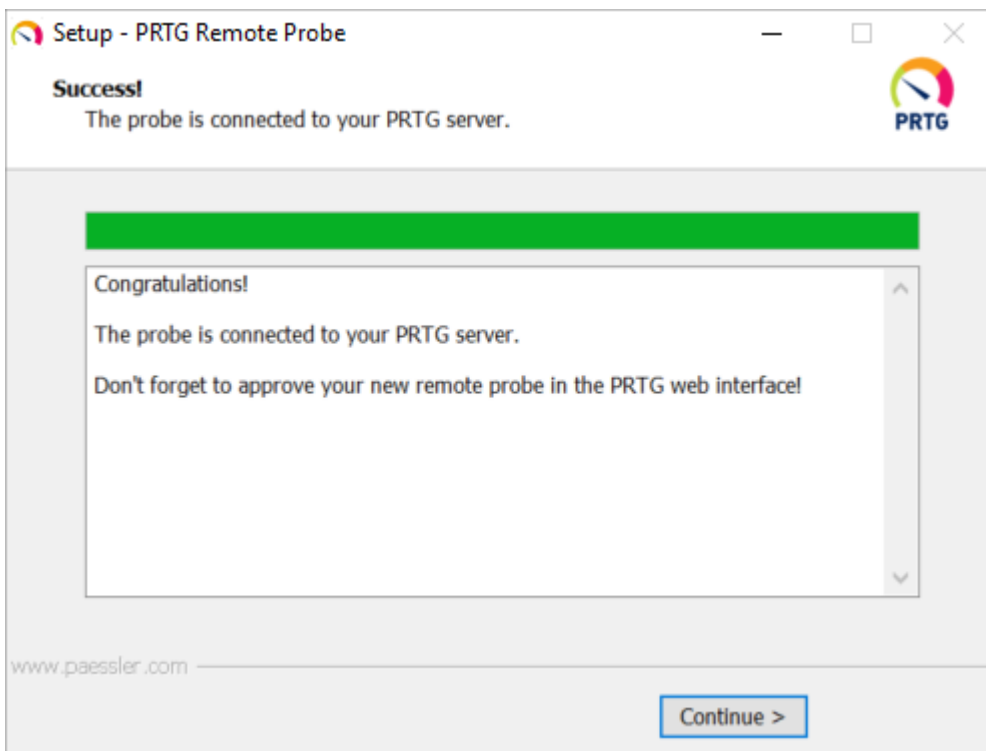
Wait until the installation is complete. The remote probe then automatically connects to your PRTG core server.



Remote Probe Setup Connecting to the PRTG Core Server

If the remote probe successfully connects to your PRTG core server, you can complete the setup of your new remote probe.

i To allow your new remote probe to connect to a PRTG Hosted Monitor instance, PRTG automatically sets the Allow IP Addresses field in [Core & Probes](#) to [any](#). You can also use [any](#) for PRTG on premises, but we recommend that you use this setting in intranets only. If [any](#) is not an option for you, cancel it in the Allow IP Addresses field and enter the IP address of your remote probe instead.



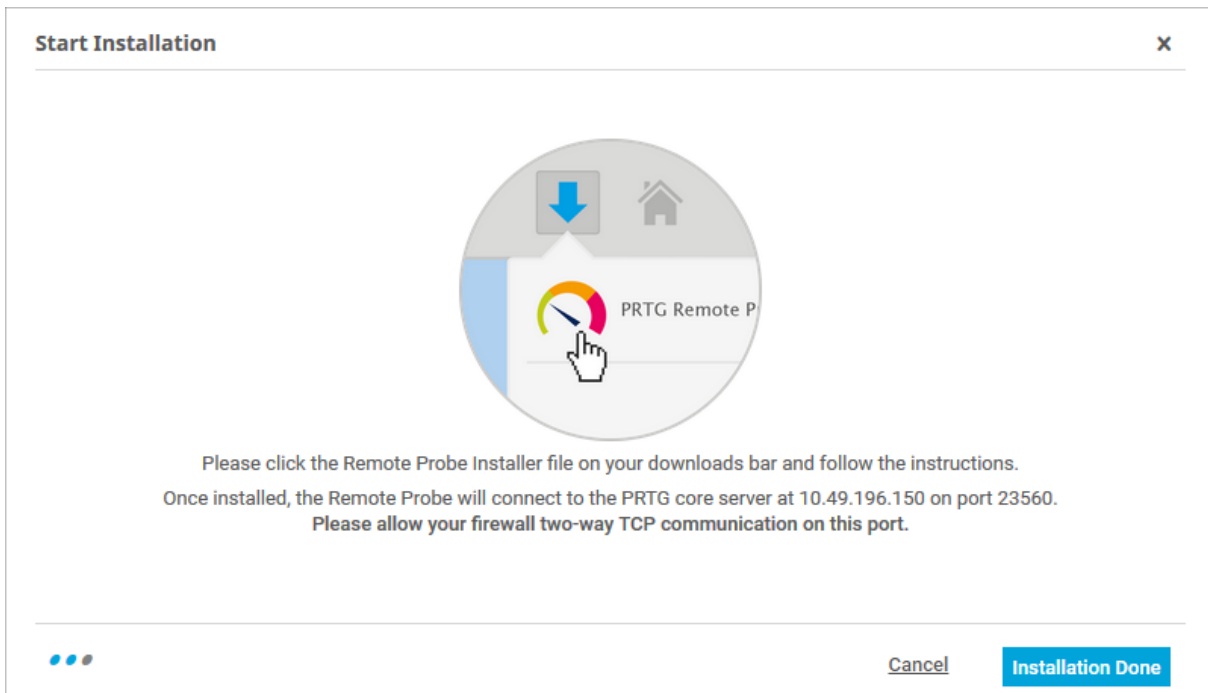
Remote Probe Setup Successful

4. Click Continue to finish the remote probe installation.
5. Click Finish to exit the installation wizard.

The remote probe is now installed on your computer as a Windows service.

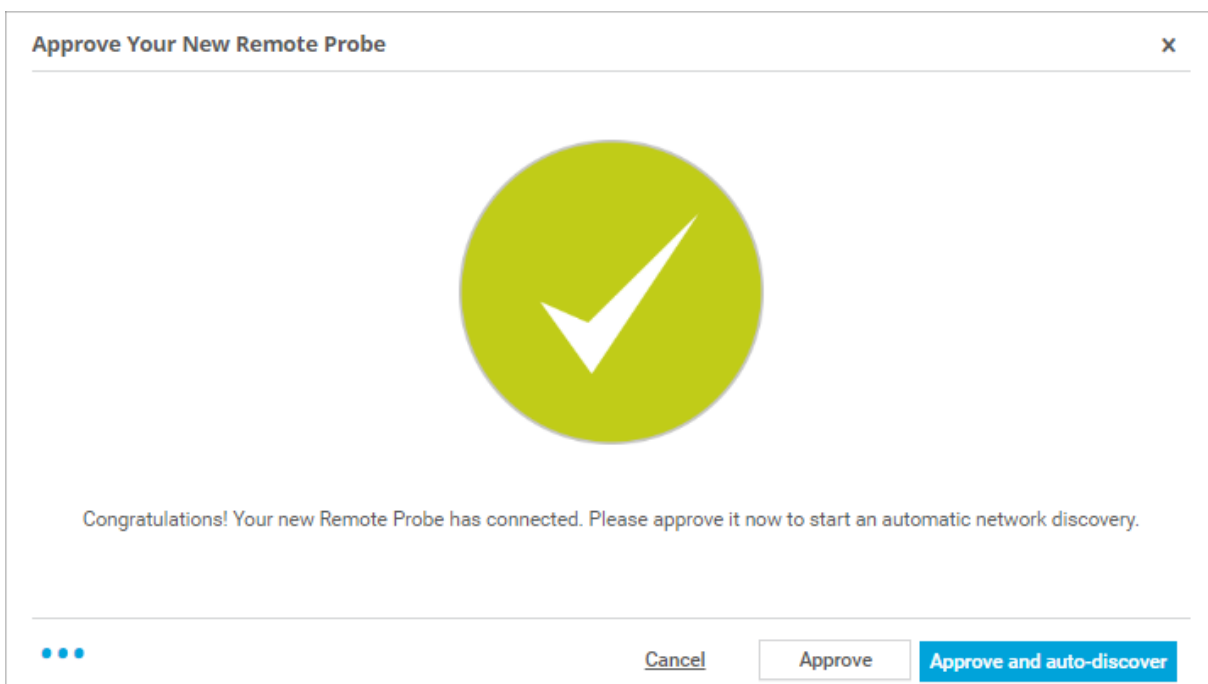
Step 5: Approve the New Remote Probe

In the installation assistant, click Installation Done.



Confirm that Installation is Done

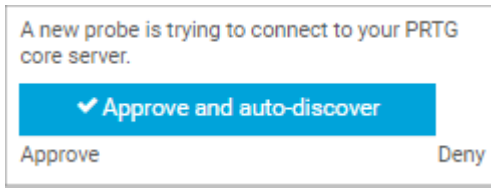
☁ If you successfully installed the remote probe from a PRTG Hosted Monitor installation, you see the following dialog box.



Approve Remote Probe for PRTG Hosted Monitor

Click **Approve and auto-discover** to include the new remote probe and network in your device tree and to start the [auto-discovery](#)^[296]. It discovers devices and automatically creates suitable sensors. Optionally, click **Approve** to only approve the remote probe without the auto-discovery. The remote probe appears in your device tree.

For unwanted remote probe connections, click Cancel. A new window appears in the lower-right corner.



Deny Remote Probe

Click Deny to deny the new remote probe.

i If you deny or remove a remote probe, PRTG automatically adds this device's global ID (GID) to the Deny GIDs list in [Core & Probes](#)⁴²⁰³. PRTG automatically denies future remote probe connections from this device.

i If you deny the remote probe in the device tree, it does **not** uninstall the remote probe, but only denies access to the PRTG core server. The remote probe continues to run on the target system until you uninstall it manually.

Once approved, PRTG automatically opens the new remote probe in the device tree and creates a set of sensors for the remote probe to ensure you can immediately detect bottlenecks on the remote probe system. We recommend that you keep these sensors. You can now create groups, devices, and sensors for monitoring via the new remote probe.

i You do not have to approve remote probes after updates.

When a new remote probe connects to the PRTG core server for the first time, you receive a new ToDo ticket.

Debugging Remote Probe Connection Issues

If you have issues with the connection between the PRTG core server and remote probe, make sure that you meet the following requirements:

- Recheck if you fulfilled all the requirements as described in [step 1](#)¹¹² of this section like the Windows Firewall settings.
- The IP address of the computer on which you want to install a remote probe is not listed in the Deny IP Addresses field in [Core & Probes](#)⁴²⁰³.
- You can also take a look at the remote probe's logfiles. The probe process writes logfiles with a file name in the format PRTG Probe Log (x).log. Open the one with the most recent date.

For a correct connection, the log should look similar to this:

```
11/6/2017 1:21:58 PM PRTG Probe V17.4.36.3253
11/6/2017 1:21:58 PM System time zone: (UTC+01:00) Amsterdam, Berlin, Bern, Rome,
Stockholm, Vienna
11/6/2017 1:21:58 PM libeay32.dll=1.0.2.11
11/6/2017 1:21:58 PM ssleay32.dll=1.0.2.11
11/6/2017 1:21:58 PM PRTG Probe "example-DNS" starting on "example-
DNS" (GID={AAAA1111-22BB-33CC-DD44-EEEEEE555555})
11/6/2017 1:21:58 PM Memory Manager: NexusMM4
11/6/2017 1:21:58 PM OS: Microsoft Windows 10 Enterprise (10.0 Build 15063), 4 CPUs
(Quad x64 Model 78 Step 3), code page "Windows-1252", on "NVME SAMSUNG MZFLV256"
11/6/2017 1:21:58 PM Data Path: C:\ProgramData\Paessler\PRTG Network Monitor\
11/6/2017 1:21:58 PM System Path: C:\Program Files (x86)\PRTG Network Monitor\
11/6/2017 1:21:58 PM Local IP: 0.0.0.0
11/6/2017 1:21:58 PM Core Server IP: example-DNS.exempldomain.com
11/6/2017 1:21:58 PM Core Server Port: 23560
11/6/2017 1:21:58 PM SSL Enabled
11/6/2017 1:21:58 PM Probe GID: {AAAA1111-22BB-33CC-DD44-EEEEEE555555}
[...]
11/6/2017 1:21:58 PM Start Connection
11/6/2017 1:21:58 PM Start Done
11/6/2017 1:21:58 PM (14608):Initializing WMIConnectionPool
11/6/2017 1:21:58 PM (14608):WMIConnectionPool maximum number of concurrrent
establishings is set to: 20
11/6/2017 1:22:03 PM Connect from to example-DNS.exempldomain.com:23560
11/6/2017 1:22:03 PM TCP connected from 10.49.12.51:55199 to example-
DNS.exempldomain.com:23560
11/6/2017 1:22:03 PM State changed to connected (example-DNS.exempldomain.com:23560)
11/6/2017 1:22:03 PM Reconnect
11/6/2017 1:22:04 PM Connected
11/6/2017 1:22:10 PM Send Login
11/6/2017 1:22:10 PM Local: 11/6/2017 1:22:10 PM UTC: 11/6/2017 12:22:10 PM
11/6/2017 1:22:10 PM MarkUnused
11/6/2017 1:22:10 PM Login OK: Welcome to PRTG
```

If the connection fails, for example because of an incorrect Access Key, or because of incorrect IP address settings (see [step 2](#)¹¹³), you see:

```
11/6/2017 1:42:02 PM Try to connect...
11/6/2017 1:42:02 PM Connected to 10.0.2.167:23560
11/6/2017 1:42:07 PM Login NOT OK: Access key not correct!
```

If you need to adjust any settings for the connection to the PRTG core server, use the [PRTG Administration Tool](#)⁴³⁷¹ on the remote probe system.

Remote Probe Settings in PRTG Administration Tool

Under Connection to PRTG Core Server, you can then edit the following settings:

- **Server:** Enter the IP address or Domain Name System (DNS) name of the PRTG core server that the remote probe is to connect to. If you use network address translation (NAT) rules, you must enter the IP address that is externally visible, because the remote probe connects from outside your network.
- **Probe Access Key and Confirm Access Key:** Enter the access key that the remote probe is to send to the PRTG core server. You have to define this access key on the PRTG core server in [Core & Probes](#)⁴²⁰³. Make sure that the access keys match.

Click **Save & Close** to confirm your settings and to (re)start the PRTG probe service.

For more information about these settings, see section [PRTG Administration Tool](#)⁴³⁷¹.

More

■ KNOWLEDGE BASE

I cannot open the PRTG web interface via the desktop shortcut anymore. What can I do?

- <https://kb.paessler.com/en/topic/89024>

How can I customize ports for core-probe connections used by PRTG?

- <https://kb.paessler.com/en/topic/65084>

■ PAESSLER WEBSITE

How to connect PRTG through a firewall in 4 steps

- <https://www.paessler.com/support/how-to/firewall>

How to install a PRTG remote probe in 4 steps

- <https://www.paessler.com/support/how-to/remote-probe-installation>

Installing the Software

- [Download PRTG](#) ⁹³
- [Update From Previous Versions](#) ⁹⁴
- [Install a PRTG Core Server](#) ¹⁰⁰
- [Install a Cluster](#) ¹⁰⁶
- [Enter a License Key](#) ¹⁰⁷
- [Activate the Product](#) ¹¹⁰
- [Install a Remote Probe](#) ¹¹²
- [Uninstall PRTG Products](#) ¹²⁵

4.8 Uninstall PRTG Products

Whether you uninstall an entire PRTG installation or a remote probe installation, take the following steps. Use the Windows uninstall routines to remove the software from your system.

Step 1

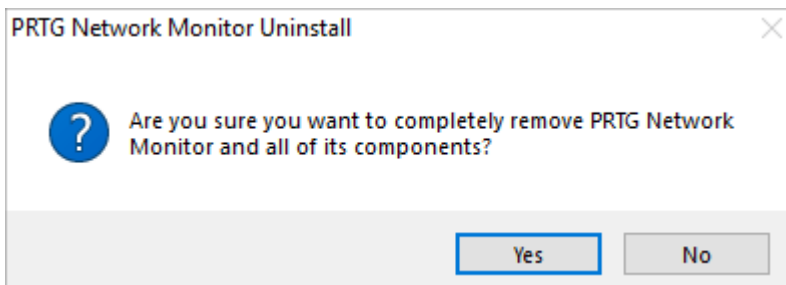
From the Windows Start menu, run Uninstall PRTG Network Monitor or open your Windows Control Panel and select the desired entry in the Programs and Features section. To uninstall a remote probe, only the second option applies. Depending on the installed products, not all uninstall programs are available.

Step 2

If asked, confirm the question of the Windows User Account Control with Yes to allow the program to uninstall. The software uninstall dialog guides you through the uninstall process.

Step 3

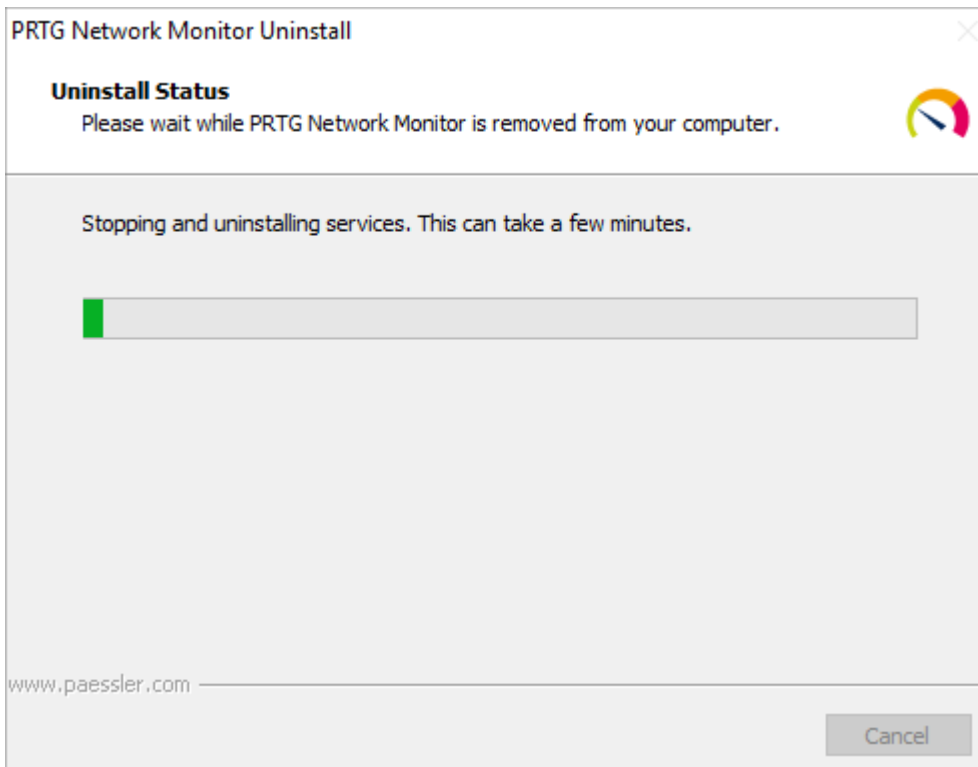
Confirm the removal of the software with Yes.



Uninstall PRTG Network Monitor Step 1

Step 4

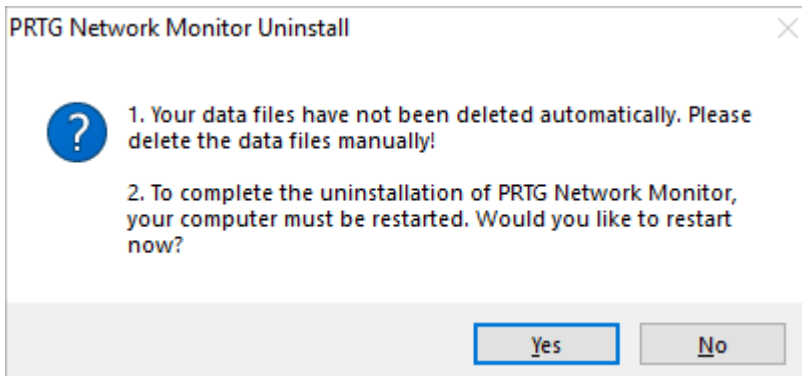
Wait while the software is removed.



Uninstall PRTG Network Monitor Step 2

Step 5

Confirm a system restart with Yes.



Uninstall PRTG Network Monitor Step 3


Step 6

After the system restart, the software is removed, but there is still some custom data in the PRTG program directory. If you have uninstalled an entire PRTG installation or a remote probe installation, your monitoring data is still stored on the system. To completely remove all PRTG data, delete the PRTG Network Monitor folder as well as the Paessler\PRTG Network Monitor folder in the PRTG data directory.

■ For more information, see section [Data Storage](#) ⁴⁵²⁶.

Step 7

During the installation of PRTG, a component called Npcap is also installed on your system. After you uninstall PRTG, you need to manually uninstall this feature. To do so, open your Windows Control Panel and select Npcap 0.9983 in the Programs and Features section. Click Uninstall to remove this feature from your Windows system.

 If you updated to PRTG 19.2.50, you also need to manually [uninstall the Npcap loopback adapter](#)^[94].

More

KNOWLEDGE BASE

Can we remotely and silently uninstall a remote probe?

- <https://kb.paessler.com/en/topic/27383>

Installing the Software

- [Download PRTG](#)^[33]
- [Update From Previous Versions](#)^[94]
- [Install a PRTG Core Server](#)^[100]
- [Install a Cluster](#)^[106]
- [Enter a License Key](#)^[107]
- [Activate the Product](#)^[110]
- [Install a Remote Probe](#)^[112]
- [Uninstall PRTG Products](#)^[125]

Part 5

Understanding Basic Concepts

5 Understanding Basic Concepts

There are a number of basic concepts that are essential for understanding the functionality of PRTG. This includes, for example, the underlying architecture of the monitoring system, the hierarchy of objects, the inheritance of settings, the access rights management, and notifications.

Understanding Basic Concepts








- [Architecture and User Interfaces](#) ^[130]
- [Cluster](#) ^[135]
- [Object Hierarchy](#) ^[138]
- [Inheritance of Settings](#) ^[142]
- [Tags](#) ^[145]
- [Dependencies](#) ^[148]
- [Scheduling](#) ^[150]
- [Notifying](#) ^[152]
- [Access Rights Management](#) ^[155]
- [Data Reporting](#) ^[159]
- [IPv6 Support](#) ^[161]


5.1 Architecture and User Interfaces

In this section, you can find an overview of the components of PRTG and how it works.

Overview

You can classify the components of PRTG into three main categories: system parts, user interfaces, and basic system administration tools.

Category	Components
System Parts	<p>PRTG core server </p> <p>This is the central part of a PRTG installation. The PRTG core server includes the data storage, the web server, the report engine, the notification system, and more. The PRTG core server is configured as a Windows service that permanently runs.</p>
	<p>Probes </p> <p>This is the part of PRTG that performs the actual monitoring. There are local probes, remote probes, and cluster probes in PRTG on premises, and there are hosted probes and remote probes in PRTG Hosted Monitor. Probes forward all monitoring data to the central PRTG core server. Probes are configured as Windows services that permanently run.</p> <p> We assume that all systems on which the PRTG core server with the local probe or any remote probes run are secure. It is every system administrator's responsibility to make sure that only authorized persons can access these systems. For this reason, we highly recommend that you use dedicated machines for your PRTG system parts.</p>
User Interfaces	<p>PRTG web interface</p> <p>With the Asynchronous JavaScript and XML (AJAX) based PRTG web interface, you can configure devices and sensors, review monitoring results, and configure the system administration and user management.</p>
	<p>PRTG Desktop </p> <p>PRTG Desktop is a cross-platform application that you can use as an alternative interface for fast access to data and monitoring management. With PRTG Desktop, you can connect to several independent PRTG core servers or PRTG Hosted Monitor instances to display their data and centrally manage your monitoring.</p>
	<p>PRTG apps for mobile network monitoring </p> <p>With the PRTG apps for iOS and Android, you can monitor your network on the go and receive push notifications in case of alerts.</p>
System Administration Tools	<p>PRTG Administration Tool on PRTG Core Server Systems  </p> <p>With the PRTG Administration Tool on the PRTG core server system, you can configure basic PRTG core server settings in PRTG on premises such as the PRTG System Administrator user login, web server IP addresses and the web server port, probe connection settings, the cluster mode, the system language, and more.</p>

Category	Components
	<p>PRTG Administration Tool on Remote Probe Systems </p> <p>With the PRTG Administration Tool on the remote probe system, you can configure basic remote probe settings such as the name of the remote probe, IP address and server connection settings, and more.</p>

PRTG Core Server

The PRTG core server is the heart of PRTG. It performs the following tasks:

- Configuration management for target devices (for example, servers, workstations, printers, switches, routers, virtual machines (VM), and more)
- Management and configuration of connected probes
- Cluster management
- Database for monitoring results
- Notification management including a mail server for email delivery
- Report generation and scheduling
- User account management
- Data purging (for example, deleting data that is older than 365 days)
- Web server and application programming interface (API) server

 In a [cluster](#) , the master node is responsible for all of these tasks.


The built-in and secure web server, for which you require no additional Microsoft Internet Information Services (IIS) or Apache, supports HTTP as well as HTTPS (secured with Secure Sockets Layer (SSL)/Transport Layer Security (TLS)). It serves the PRTG web interface when you access it via a browser and also answers PRTG API calls.

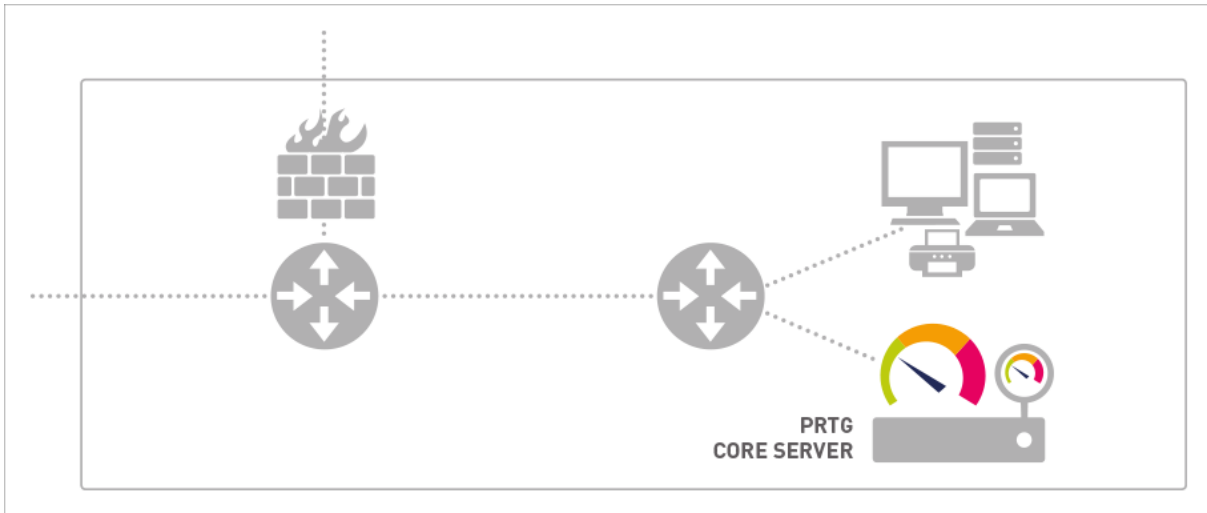
 The PRTG core server is configured as a Windows service that permanently runs. A logged-in user is not required.

Probes

On the probe, PRTG performs the actual monitoring via the sensors that you created on a device (for example, a computer, a router, a server, a firewall, and more). The probe receives its configuration from the PRTG core server, runs the monitoring processes, and delivers monitoring results back to the PRTG core server.

 For PRTG on premises, there is always a local probe that runs on the PRTG core server system.






 For PRTG Hosted Monitor instances, there is always a hosted probe that runs on the PRTG core server system that Paessler hosts for you.







PRTG Core Server and Local Probe That Monitors a LAN








The actual monitoring is performed by probe processes that run on one or more systems.

- ❶ The probes are configured as a Windows service that permanently runs. A logged-in user is not required.

Probe Type	Description
Local probe 	<p>During the installation, PRTG automatically creates the local probe. In a single-probe installation, which is the default setup, the local probe performs all monitoring.</p> <p>For PRTG on premises, the PRTG core server with the local probe inside the corporate LAN can monitor services and servers in the entire LAN.</p>
Hosted probe 	<p>When you create a PRTG Hosted Monitor instance, the system automatically creates the hosted probe. The hosted probe shows monitoring values of the hosted instance and can monitor devices, servers, and services that are publicly available in the internet like websites.</p>
Remote probes	<p>You can create additional remote probes to monitor multiple locations, to monitor a LAN with PRTG Hosted Monitor, or for several other scenarios. Remote probes use SSL/TLS-secured connections to the PRTG core server. With remote probes, you can securely monitor services and systems inside remote networks that are not publicly available or that are secured by firewalls.</p> <ul style="list-style-type: none">  For more information, see section Add Remote Probe .  For more information, see the video tutorial: Distributed monitoring with PRTG

Probe Type	Description
Cluster probes 	In a cluster, a cluster probe runs on all cluster nodes. All devices that you create on the cluster probe are monitored by all cluster nodes, so data from different perspectives is available and monitoring continues even if one of the cluster nodes fails.
Mini probes 	Mini probes let you create small probes on any device, not only on Windows systems.  For more information, see section Mini Probe API  .

System Health Monitoring

PRTG automatically monitors the system health of the PRTG core server and of each probe to discover overload situations that can distort monitoring results. To monitor the status of the probe system, PRTG automatically creates the [Core Health](#)  and [Probe Health](#)  sensor, the [System Health](#)  sensor, the [Cluster Health](#)  sensor, some [disk free](#)  and [bandwidth](#)  sensors for all installed network cards, as well as a [Common SaaS sensor](#)  that checks the availability of widely used software as a service (SaaS) providers.

We recommend that you keep these sensors. However, you can remove all of them except for the [health](#) sensors.

The health sensors measure various internal system parameters of the probe system hardware and the probe's internal processes and compute the results. Investigate frequent values below 100%.

More

PAESSLER WEBSITE

Getting started with PRTG

- <https://www.paessler.com/support/training/e-learning>

How to connect PRTG through a firewall in 4 steps

- <https://www.paessler.com/support/how-to/firewall>

VIDEO TUTORIAL

Distributed monitoring with PRTG

- https://www.paessler.com/learn/videos/distributed_monitoring

What is a sensor?

- <https://www.paessler.com/learn/videos/what-is-a-sensor>

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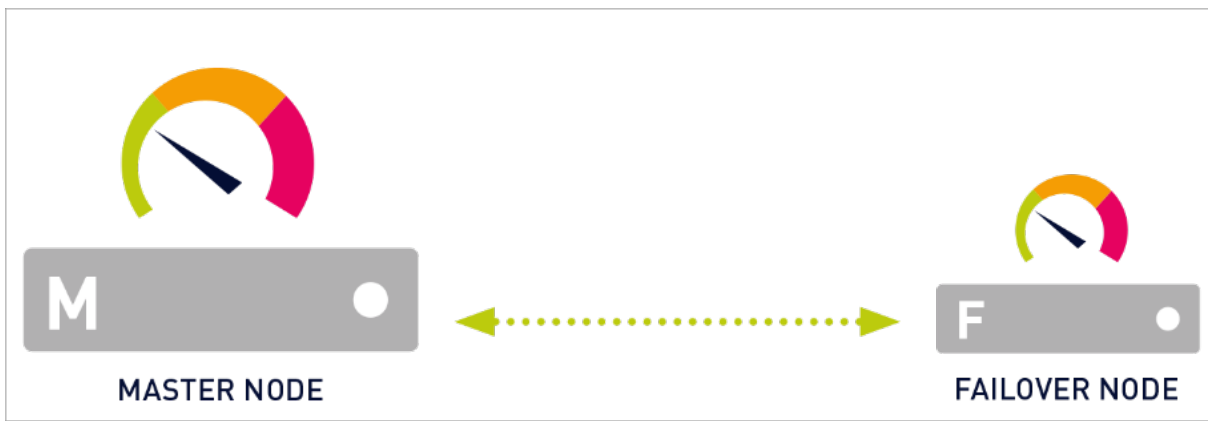
5.2 Cluster

A **cluster** consists of two or more PRTG core servers that work together to form a high-availability monitoring system.

☁ This feature is not available in PRTG Hosted Monitor.

Cluster Concept

A cluster consists of at least two cluster nodes: one **master node** and one or more **failover nodes**, where up to four failover nodes are possible. Each cluster node is a full PRTG core server installation that can perform all of the monitoring and alerting on its own.



Cluster with Two Cluster Nodes

See the following table for more information on how a cluster works:

Feature	Description
Connection and communication	Cluster nodes are connected to each other with two TCP/IP connections. They communicate in both directions and a single cluster node only needs to connect to one other cluster node to integrate itself into the cluster.
Object configuration	During normal operation, you configure devices, sensors, and all other monitoring objects on the master node. The master node automatically distributes the configuration among all other cluster nodes in real time.
Fail-safe monitoring	All devices that you create on the cluster probe are monitored by all cluster nodes, so data from different perspectives is available and monitoring continues even if one of the cluster nodes fails. If the master node fails, one of the failover nodes takes over and controls the cluster until the master node is back. This ensures continuous data collection.

Feature	Description
Active-active mode	A cluster works in active-active mode. This means that all cluster nodes permanently monitor the network according to the common configuration that they receive from the master node. Each cluster node stores the results in its own database. PRTG also distributes the storage of monitoring results among the cluster.
PRTG updates	You only need to install PRTG updates on one cluster node. This cluster node automatically deploys the new version to all other cluster nodes.
Notification handling	If one or more cluster nodes discover downtime or threshold breaches, only one installation, either the primary master node or the failover master node, sends out notifications, for example, via email, SMS text message, or push message. Because of this, there is no notification flood from all cluster nodes in case of failures.
Data gaps	<p>During the outage of a cluster node, it cannot collect monitoring data. The data of this single cluster node shows gaps. However, monitoring data for the time of the outage is still available on the other cluster nodes.</p> <p>i There is no functionality to fill these gaps with the data of other cluster nodes.</p>
Monitoring results review	Because the monitoring configuration is centrally managed, you can only change it on the primary master node. However, you can review the monitoring results of any of the failover nodes in read-only mode if you log in to the PRTG web interface.
Remote probes	If you use remote probes in a cluster ^[4515] , each remote probe connects to each cluster node and sends the data to all cluster nodes. You can define the Cluster Connectivity of each remote probe in its settings ^[409] , section Administrative Probe Settings.

Performance Considerations for Clusters

Monitoring traffic and load on the network is multiplied by the number of used cluster nodes. Furthermore, the devices on the cluster probe are monitored by all cluster nodes, so the monitoring load increases on these devices as well.

For most usage scenarios, this does not pose a problem, but always keep in mind the [system requirements](#)^[26]. As a rule of thumb, each additional cluster node means that you have to divide the number of sensors that you can use by two.

i PRTG does not officially support more than 5,000 sensors per cluster. Contact the [Paessler Presales team](#) if you exceed this limit. For possible alternatives to a cluster, see the Knowledge Base: [Are there alternatives to the cluster when running a large installation?](#)

Cluster Setup

■ For more information, see section [Failover Cluster Configuration](#) ⁴⁵¹³.

More

■ KNOWLEDGE BASE

What's the clustering feature in PRTG?

- <https://kb.paessler.com/en/topic/6403>

In which web interface do I log in to if the master node fails?

- <https://kb.paessler.com/en/topic/7113>

What are the bandwidth requirements for running a cluster?

- <https://kb.paessler.com/en/topic/8223>

Are there alternatives to the cluster when running a large installation?

- <https://kb.paessler.com/en/topic/75474>

■ PAESSLER WEBSITE

How to connect PRTG through a firewall in 4 steps

- <https://www.paessler.com/support/how-to/firewall>

▶ VIDEO TUTORIAL

How to set up a PRTG cluster

- <https://www.paessler.com/learn/videos/how-to-set-up-a-cluster>

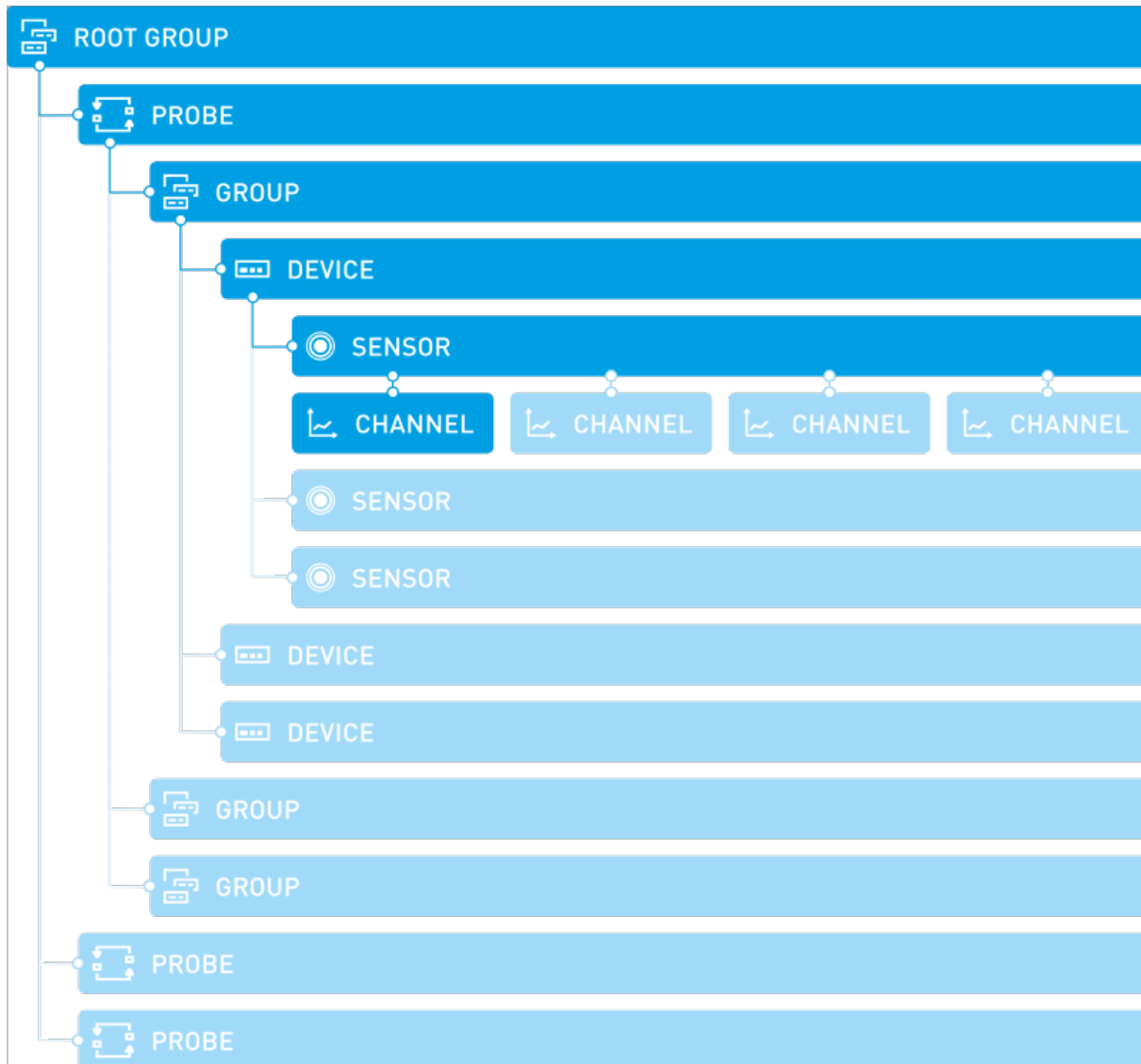
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- [Object Hierarchy](#) ¹³⁸
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5.3 Object Hierarchy

PRTG arranges all objects in the monitoring configuration in a tree-like hierarchy. You can arrange the objects in groups that monitor similar devices, services, or particular locations. You can also use this hierarchical order to define common settings for larger groups of objects. The settings of the root group, for example, apply to all other objects underneath in the object hierarchy by default

For more information, see section [Inheritance of Settings](#)¹⁴².



Object Hierarchy in PRTG

Root Group

The [root group](#) is the topmost instance in PRTG. It contains all other objects in your setup. We recommend that you [adjust all default settings for the root group](#)³⁶⁶. This is because all other objects in the device tree [inherit](#)¹⁴² these standard settings by default so that you do not have to set up the same configuration for each object anew.

Probe

Each group (except the root group) is part of a **probe**. This is where the actual monitoring takes place. All objects that you add to a probe are monitored via that probe. In PRTG on premises, every PRTG core server installation automatically installs the **local probe**. In PRTG Hosted Monitor, every instance has the **hosted probe**.

In a **cluster**, there is an additional **cluster probe** that runs on all cluster nodes. All devices that you create on the cluster probe are monitored by all cluster nodes, so data from different perspectives is available and monitoring continues even if one of the cluster nodes fails.

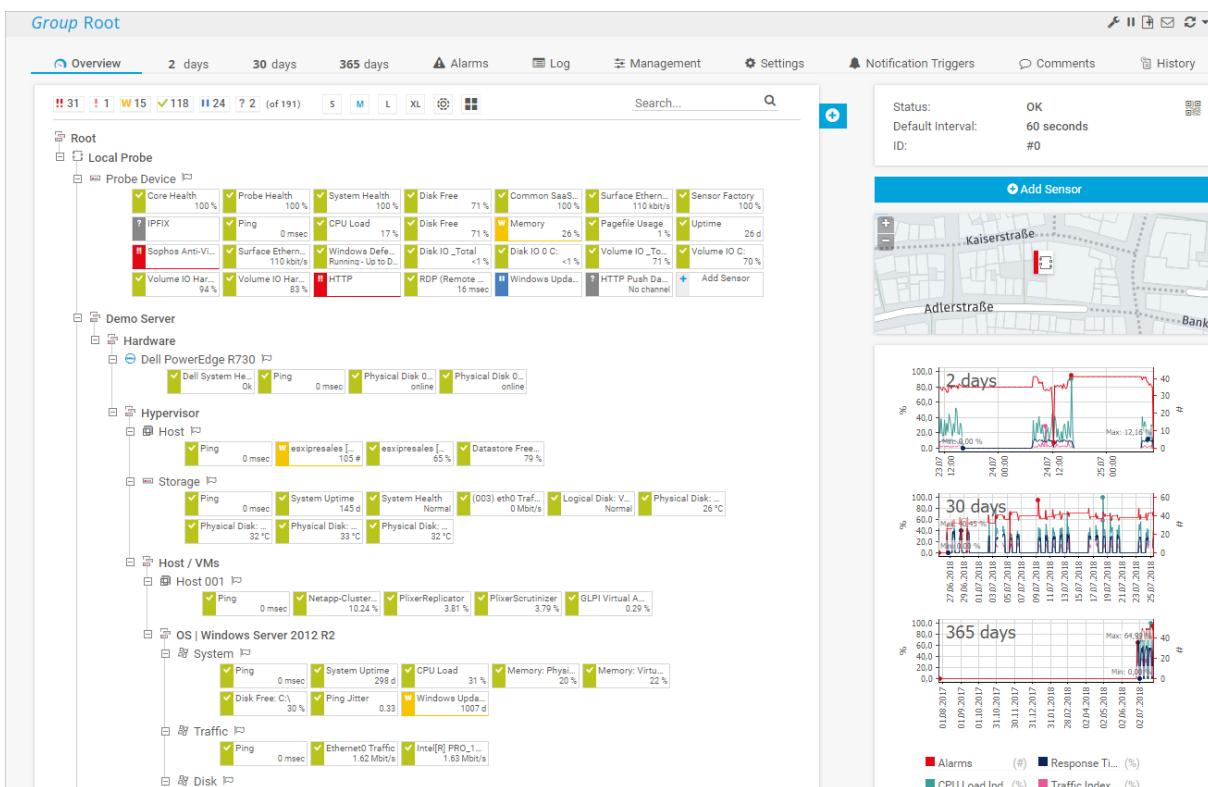
You can add additional probes and remote probes to your configuration to also monitor remote devices from outside your network.

For more information, see section [Add Remote Probe](#).

Group

On each probe, there are one or more **groups** that have structural purposes. Use groups to arrange similar objects so that they inherit the same settings. To a group, you add devices. You can arrange your devices in different nested groups to reflect the structure of your network.

Here you can see a sample configuration of a device tree with the local probe, several groups, devices, and their sensors:




Object Hierarchy in the Device Tree

Device

You can add [devices](#) that you want to monitor to each probe or group. Each device in your configuration represents real hardware or a virtual device in your network, for example:

- Web or file servers
- Client computers (Windows, Linux, or macOS)
- Routers or network switches
- Almost every device in your network that has its own IP address

 You can add devices with the same IP address or Domain Name System (DNS) name multiple times. This way, you can get a more detailed overview when you use a large number of sensors or you can use different device settings for different groups of sensors. The sensors on all of these devices then query the same real hardware device in your network.

PRTG additionally adds the [probe device](#) to the local probe. This is an internal system device with several sensors. It has access to the probe system and monitors the system's health parameters.

PRTG automatically analyzes the devices that you add and recommends appropriate sensors on the device's Overview [tab](#)^[201]. To create recommended sensors, click Add These Sensors in the Recommended Sensors table.

 You can turn off the sensor recommendation in the system administration settings under [Monitoring](#)^[419].

Sensor

On each device, you can create a number of [sensors](#). Every sensor monitors one single aspect of a device, for example:

- A network service like Simple Mail Transfer Protocol (SMTP), File Transfer Protocol (FTP), or HTTP
- The traffic on a network switch
- The CPU load of a device
- The memory usage of a device
- The traffic on one network card
- A NetFlow device
- The system health of a device
- And much more

 For more information, see the video tutorial: [What is a sensor?](#)

Channel

Every sensor has a number of [channels](#) through which it receives the different data streams. The available channels depend on the type of sensor. One channel can contain, for example:

- Downtime and uptime of a device
- Traffic in, Traffic out, or Traffic sum of a bandwidth device (for example, a router)

- Mail traffic of a NetFlow device
- CPU load of a device
- Loading time, Download bandwidth, or Time to first byte of a web page
- Response time of a Ping request to a device
- And much more

More

VIDEO TUTORIAL

What is a sensor?

- <https://www.paessler.com/learn/videos/what-is-a-sensor>

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5.4 Inheritance of Settings

The [hierarchically structured](#) ¹³⁸ device tree organizes the devices in your network. This object hierarchy is the basis for the [inheritance of settings](#). Objects in the device tree can inherit their settings from a higher level. For example, you can change the scanning interval of all sensors by editing the interval setting of the root group (if you define no other setting underneath in the object hierarchy).

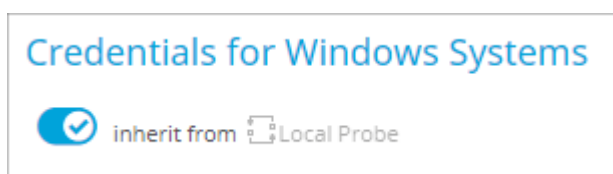
Inheritance to Child Objects

You can override the inheritance of settings to child objects at any level of the object hierarchy if you set a different value for a specific probe, group, device, or sensor. All objects underneath inherit these new settings. Object settings from higher levels do not inherit the new settings.


Settings that are inherited to all objects include:

- Scanning intervals
 - [Notification triggers](#) ³⁹⁸⁷
 - Credentials for different systems
 - Compatibility settings for specific sensor types
 - Channel and unit configurations
 - [User access rights](#) ¹⁵⁵
 - [Tags](#) ¹⁴⁵
 - Paused [status](#) ¹⁹⁷: If an object is paused by the user or by a schedule, PRTG sets all sensors on this object to the Paused status as well
- i** There is one exception for devices and sensors. Sensors [always](#) inherit the IP address or DNS name of a device and the compatibility settings. You cannot change these settings at sensor level.

Here you can see the Credentials for Windows Systems setting that the object inherits from the parent:



Inherited Credentials for Windows Systems

Click  next to inherit from [\[parent object\]](#) to override the parent object's settings and enter new settings for this object and all objects underneath in the object hierarchy.

Credentials for Windows Systems

inherit from Local Probe

Domain or Computer Name ⓘ myDomain

User ⓘ John Q. Public

Password ⓘ

Credentials for Windows Systems

i Click Save for your settings to take effect. If you click after you enter your settings, the object inherits the parent object's settings again and your object-specific settings do not take effect.

Default Settings in Root Group

For all settings except passwords, PRTG already includes a set of default values. The following settings, for example, are inherited by all sensors from the root group:

- A default scanning interval of one minute
- SNMP v1 with the community string set to public (this is the default setting for most devices)
- The dependency type Use parent
- And more

Before you set up your monitoring, we recommend that you review the root group settings and set the default values to suit your setup. This includes the credentials for the different systems in your network that you want to monitor (Windows, Linux, virtual servers, different vendors, and more).

■ For more information, see section [Root Group Settings](#) ³⁶⁶.

Inheritance of Notification Triggers

If you add notification triggers at probe, group, or device level, these are also inherited to all sensors underneath in the object hierarchy unless you manually disable the inheritance.

■ For more information, see section [Notification Triggers Settings](#) ³⁹⁸⁷.

Understanding Basic Concepts

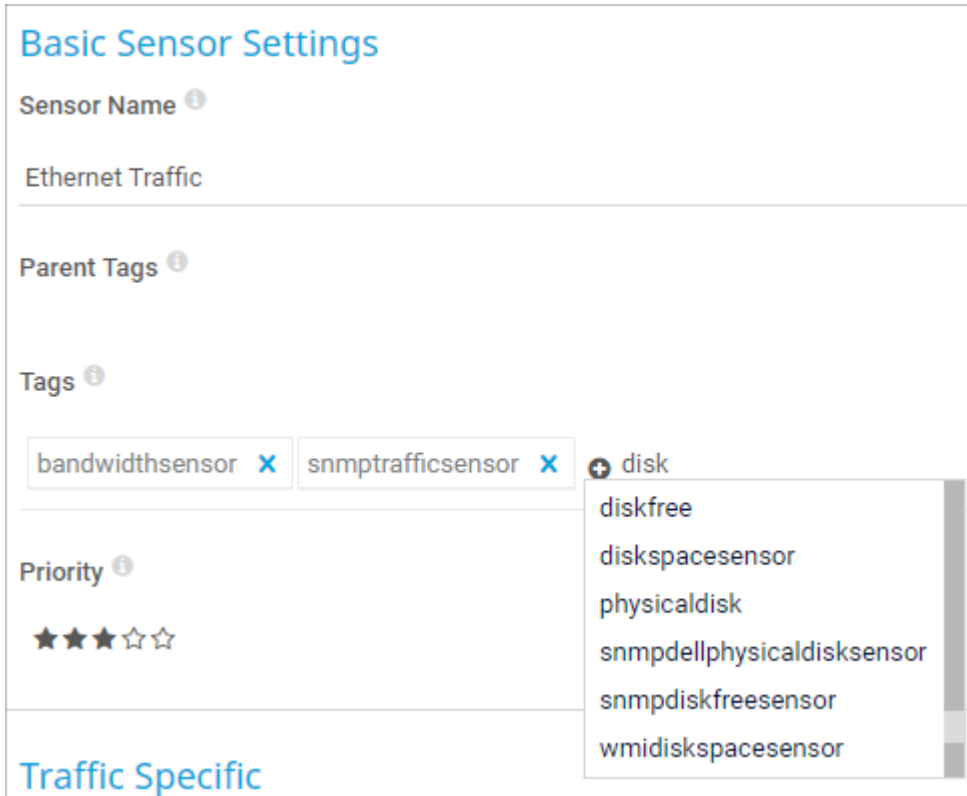
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5.5 Tags

For every object in your setup, you can define tags in the [object settings](#) to additionally categorize these objects. Although some tags are predefined when you [add objects](#), you can add further tags. For example, you can mark all bandwidth sensors that are especially important for you with the tag [bandwidthimportant](#).



View and Edit Tags in Basic Sensor Settings


To confirm a tag, use the **Enter** key, the **Spacebar** key, or a **comma**.

- ① Use the [multi-edit](#) function to simultaneously change tags for several objects.
- ① It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).
- ① For performance reasons, it can take some minutes until you can filter for new tags that you added.

Inheritance of Tags

Tags in object settings are automatically [inherited](#) by all other objects underneath in the [object hierarchy](#). You can view inherited tags in section Parent Tags in the settings of a sensor, device, or group.

For example, a device with the tag [netflow](#) automatically passes on this tag to all sensors that you add to the device. This is useful, for example, if you include sensors by tag in [reports settings](#). PRTG adds all sensors with the tag [netflow](#) to the report so that you do not have to manually tag every single sensor.

 You cannot disable the inheritance of tags.

Filter by Tags

You can use one or more tags to filter [table lists](#)^[246] for specific objects, or to add sensors to [libraries](#)^[4047] and [reports](#)^[4069].

When you filter by tags, you can also use the plus sign (+) or the minus sign (-) to categorize tags as [must have](#) or [must not have](#).

- Use a tag with a leading + to specify that objects with this tag must be included.
- Use a tag with a leading – to specify that objects with this tag must **not** be included.
- Use tags without a leading plus or minus sign to specify that objects need to have at least one of these tags to be included.

The filter only shows an object if all three conditions are met. The order of the tags in a tag field does not matter.

Examples

Here are some examples that show how to filter by tags:

- If you enter [-netflow](#), the table list, library, or report includes all objects that do not have this tag. With the tags [+netflow](#) or [netflow](#), you filter for objects that have this tag.
- If you enter [+netflow -bandwidthimportant](#), the table list, library, or report includes all objects that have the tag 'netflow', but excludes all objects that have the tag 'bandwidthimportant'.
- If you enter [netflow bandwidthimportant](#), the table list, library, or report includes all objects that have either the tag 'netflow' or the tag 'bandwidthimportant' or both tags.

Tag Display Limits

For performance reasons, PRTG has a display limit of 1,000 tags when you select Sensors | By Tag in the [main menu bar](#)^[282]. If you have more than 1,000 tags, PRTG shows no tags here. You can, however, still use tags for filters and searches, for example.

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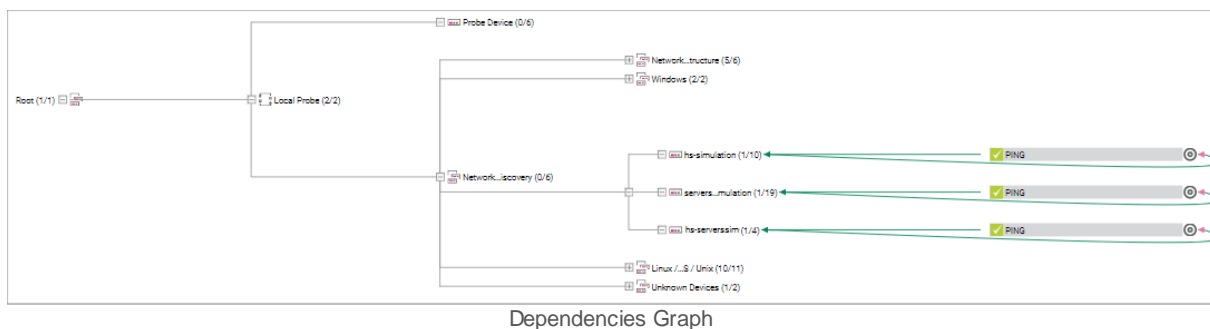
5.6 Dependencies

You can use dependencies to pause sensors based on the [status](#) [197] of a different (master) sensor to avoid false alarms and incorrect downtime recording. A dependency stops the monitoring of one sensor or a set of sensors as soon as another dependency causes a specific sensor to show the Down status or the Paused status. This means, for example, that you can stop monitoring remote network services when the corresponding firewall is down because of connection problems.

When you use the [auto-discovery](#) [296] function, PRTG sets the [Ping sensor](#) [2010] of a device as the **master** object for the device by default. This means that monitoring for the entire device is paused if a dependency causes the Ping sensor to show the Down status or the Paused status. Usually, it makes little sense to monitor any other parameters while the Ping sensor indicates that the device is unavailable.

i You do not trigger a status change by [dependency](#) [148] if you manually pause a master object or if you pause it by [schedule](#) [150]. For more details, see the Knowledge Base: [Why will dependent objects not go into paused status automatically when I pause the master object?](#)

To view the list of dependencies, select Devices | Dependencies and the corresponding dependencies path from the [main menu bar](#) [279]. From there you can also access the [dependencies graph](#) [4023] that visualizes all dependencies in your network.



■ For more information about the dependency settings, see the [settings of the object](#) [226] for which you want to set a dependency, section Schedules, Dependencies, and Maintenance Windows.

More

■ KNOWLEDGE BASE

Why will dependent objects not go into paused status automatically when I pause the master object?

- <https://kb.paessler.com/en/topic/76351>

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5.7 Scheduling

With schedules, you can automatically [pause](#)^[256] specific objects for a specific time span, for example, on Sundays between 16:00 and 20:00. A sensor in the Paused [status](#)^[197] does not collect monitoring data, does not change its status, and does not trigger any [notifications](#)^[152]. You can also pause monitoring for planned system maintenance windows to avoid false alarms. You can apply different schedules to every object. PRTG also uses schedules for reports and notifications.

i You do not trigger a status change by [dependency](#)^[148] if you manually pause a master object or if you pause it by [schedule](#)^[150]. For more details, see the Knowledge Base: [Why will dependent objects not go into paused status automatically when I pause the master object?](#)

Schedules, Dependencies, and Maintenance Windows

inherit from Internet

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Schedule **i** None

Maintenance Window **i** None

Dependency Type **i** None

- None
- Saturdays [GMT+0200]
- Sundays [GMT+0200]
- Weekdays [GMT+0200]
- Weekdays Eight-To-Eight (8:00 - 20:00) [GMT+0200]**
- Weekdays Nights (17:00 - 9:00) [GMT+0200]
- Weekdays Nights (20:00 - 8:00) [GMT+0200]
- Weekdays Nine-To-Five (9:00 - 17:00) [GMT+0200]
- Weekends [GMT+0200]

Access Rights

inherit from Internet

Available Default Schedules in Device Settings

Schedules are user account specific. To change the predefined schedules or to add your own schedules, see section [Schedules](#)^[4169].

i If you use a cluster with cluster nodes in different time zones, the schedule applies at the local time of each cluster node. For more information, see section [Failover Cluster Configuration](#)^[4513].

More









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Why will dependent objects not go into paused status automatically when I pause the master object?

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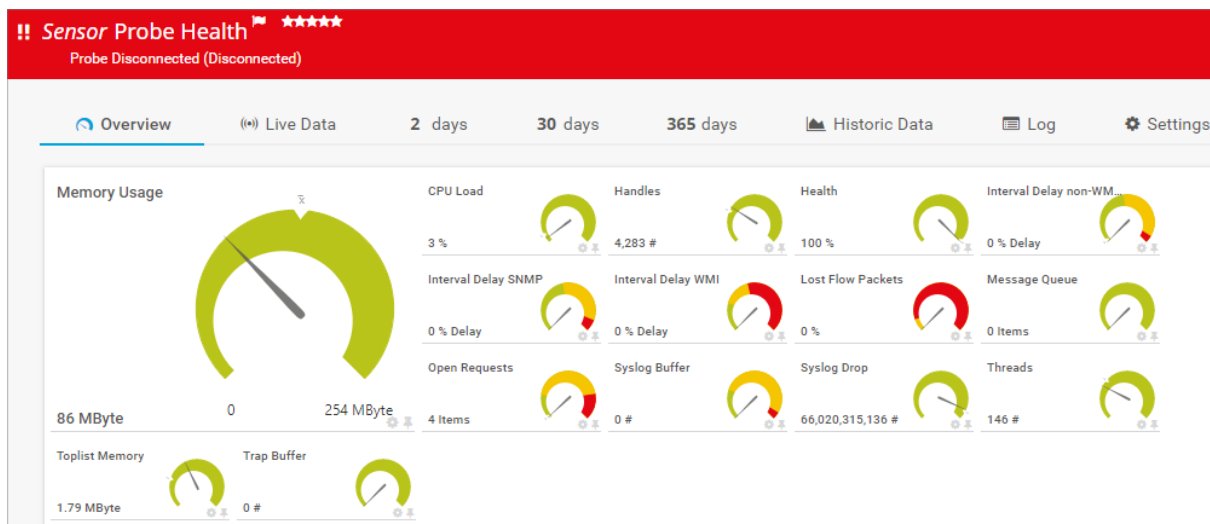
5.8 Notifying

PRTG keeps you or other responsible people informed about the status of the network. There are several methods that you can use to stay up to date.

Internal Sensor Alerts

Alerts are an important part of monitoring that informs you when there are issues, when values exceed limits, or when a sensor status changes, for example. Some sensors display internal alerts in case of errors, for example, disconnected probes or socket and timeout errors. There are also sensors whose internal sensor alerts you can modify. To see if you can modify an alert, check the sensor's settings for customizable options.

Here is an example of a sensor that is in the Down [status](#)^[197] because of an internal sensor alert.



Probe Health Sensor with Disconnected Probe Alert

HTTP sensors, for example, show preconfigured internal alerts based on specific HTTP status codes.

■ For more information, see the Knowledge Base: [Which HTTP status code leads to which HTTP sensor status?](#)

Channel Limits

There are also alerts that are triggered by limits that you can set in the [channel settings](#)^[3977] of a sensor. PRTG triggers a [sensor status](#)^[197] change when a sensor measures values that exceed or fall below a defined limit. For example, you can set an [SNMP CPU Load sensor](#)^[2442] to the Down status when it measures values that you consider critical. This sensor then appears in the [alarms](#)^[228] list as well.

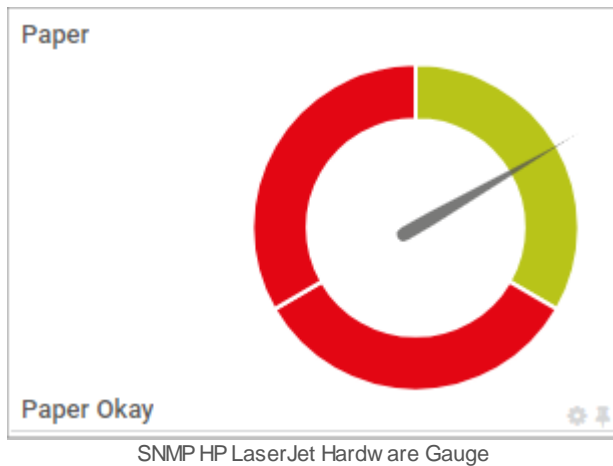
ⓘ This type of alert only applies when a value breaches the configured limits. If the value is normal again in the next sensor scan, the sensor shows the Up status again.

ⓘ The value type that you need to configure for limits depends on the type of data that the channel returns. You can set [absolute values or delta values](#)^[4039].

▶ For more information, see the video tutorial: [How to set channel limits](#)

Lookups for Channels

PRTG also uses lookups for some sensors. In general, lookups make data more human friendly because they map status values that a device returns, usually integers, to more informative expressions in words that show you the status of a monitored device in plain text.



Additionally, lookups can define the sensor status in combination with specific status codes. For example, a sensor can show the Unknown status if a channel value, provided by lookups, indicates that the device is Inactive, instead of displaying a numeric value like -1.

You can also modify preconfigured lookups or create your own custom lookups.

■ For more information, see section [Define Lookups](#)⁴⁴⁸⁵.

Notifications

PRTG can send a [notification](#)⁴⁰³¹ when it discovers, for example, downtime, an overloaded system, threshold breaches, or similar situations. Notifications use various [methods](#)⁴¹³⁸ to notify you of issues. After you create [notification templates](#)⁴¹³¹ in the system settings, you can select the templates on the Notification Triggers tab of probes, groups, devices, and sensors, as well as the root group.

The status or the data of a sensor can also trigger notifications. With this mechanism, you can configure custom external alerts. Which [notification triggers](#)³⁹⁸⁷ are available depends on the kind of object you edit. You can define notification triggers that are activated by an 'on change' event. Some sensors offer the option to trigger a notification whenever sensor values change.

■ For more information, see section [Notifications](#)⁴⁰³¹.

Alarms

The alarms list shows all sensors that are in the Down, Down (Partial), Down (Acknowledged), Warning, or Unusual status. Sensors in the Up, Paused, or Unknown states do not appear here.

■ For more information, see section [Alarms](#)²²⁸¹.

Logs

The logs list shows the logfile that includes all monitoring events. PRTG documents the activity of every single object, so you can use this data to check if your setup works as expected.

■ For more information, see section [Logs](#)^[237].

Tickets

The tickets list shows tickets with important system information or actions that you need to take. We recommend that you view every ticket and take appropriate action. By default, PRTG sends an email to the [PRTG System Administrator](#) user for every new ticket that the system or a user creates. If a ticket is assigned to a specific user, this user also receives an email by default.

■ For more information, see section [Tickets](#)^[240].

More

■ KNOWLEDGE BASE

Which HTTP status code leads to which HTTP sensor status?

- <https://kb.paessler.com/en/topic/65731>

▶ VIDEO TUTORIAL

How to set channel limits

- <https://www.paessler.com/support/videos/how-to-set-channel-limits>

Understanding Basic Concepts

- [Architecture and User Interfaces](#)^[130]
- [Cluster](#)^[135]
- [Object Hierarchy](#)^[138]
- [Inheritance of Settings](#)^[142]
- [Tags](#)^[145]
- [Dependencies](#)^[148]
- [Scheduling](#)^[150]
- [Notifying](#)^[152]
- [Access Rights Management](#)^[155]
- [Data Reporting](#)^[159]
- [IPv6 Support](#)^[161]

5.9 Access Rights Management

With the access rights management, you can define which user in which user group can access which objects in your PRTG installation, and you can manage all user access rights and group access rights.

You can create a nearly unlimited number of other users, which you can organize in a nearly unlimited number of user groups. Each user group can have separate [access rights](#)^[155] for each object in the device tree except channels, as well as for libraries, maps, and reports. Objects can also [inherit](#)^[142] access rights according to the [object hierarchy](#)^[138].

User Access Rights Overview

Each user also has specific access rights. There are administrators who are user group members with administrative rights, read/write users, and read-only users. You can define the user type (read-only user or read/write user) in the user account settings.

■ For more information, see section [User Accounts](#)^[421].

Account Control

User Type ⓘ	<input type="radio"/> Read/write user <input checked="" type="radio"/> Read-only user
Acknowledge Alarms ⓘ	<input type="radio"/> User can acknowledge alarms <input checked="" type="radio"/> User cannot acknowledge alarms (default)
Password Change ⓘ	<input type="radio"/> User can change the account password <input checked="" type="radio"/> User cannot change the account password (default)
Primary Group ⓘ	PRTG Users Group
Status ⓘ	<input checked="" type="radio"/> Active <input type="radio"/> Paused
Last Login ⓘ	(has not logged in yet)

User Access Rights in User Account Settings

Individual user access rights, combined with the access rights of the groups that the user is a member of, determine the access rights for device tree objects, libraries, maps, and reports. In general, group access rights override user access rights unless a user is a read-only user. Read-only users always have only read access.

You can define the group access rights for each object in the device tree via the corresponding [context menus](#)^[259] or in the [object settings](#)^[228].

Group Access Rights Overview

The following classes of group access rights are available, in hierarchical order (from the lowest group access right to the highest group access right).

i The access rights apply to device tree objects and to libraries, maps, and reports.

Group Access Rights	Description
No access	The members of the user group cannot see or access the object. They also cannot see or access logs, tickets, or alarms for the object.
Read access	The members of the user group can only view the object and its settings.
Write access	The members of the user group can view the object and edit its settings. They can also add and delete objects, acknowledge alarms, edit notification templates, notification contacts, and schedules.
Full access	The members of the user group can view the object and edit its settings. They can also add and delete objects, acknowledge alarms, edit notification templates, notification contacts, and schedules. In addition, they can edit group access rights for objects.

If a user group has administrative rights, all user group members always have **full access** to every object in the device tree, library, map, and report, and all other functionalities and features of PRTG.

i Group access rights that you define directly on an object, for example a device, override inherited rights. If you do not define group access rights directly on an object, PRTG checks the next object that is higher up in the object hierarchy for group access rights until there is no higher-level object available.

Current Group Access Rights		
Object ▾	Access ⇅	Comments ⇅
PRTG Administrators	Full access	Administrator User
PRTG Users Group	Write access	Defined in current object
UserGroup	No access	No access rights defined
UserGroupAdmin	Full access	Administrator User
UserGroupNoTicket	Read access	Defined in current object

Different Access Rights Depending on User Groups

i Users are either members of PRTG user groups or of Active Directory groups. They cannot be members of both types of user group. We recommend that you use only one type of user group to minimize administration.

Group Access Rights in Combination with User Access Rights

The following table shows the correlation between group access rights and user access rights. The table applies to both PRTG user groups and Active Directory groups, as well as to both PRTG users and Active Directory users. The column headings show the group access rights to an object. The row headings show the type of user.

	User group has read access to an object	User group has write access to an object	User group has full access to an object	Administrator group
Read-only user	Read access	Read access	Read access	n/a
Read/write user	Read access	Write access	Full access	Full access
Administrator	Full access	Full access	Full access	Full access

The following rules apply:

- **Read-only users**
 - always have only read access, no matter what access rights you define for the user groups they are members of
 - can never see or use the ticket system
 - can acknowledge alarms and change their own password in their user account settings, if an administrator allows them to
 - can never be members of user groups with administrative rights
- **Read/write users**
 - can use the ticket system if the user group they are members of has access to the ticket system
 - can acknowledge alarms
 - can change their own password
 - can have full access to device tree objects, libraries, maps, and reports, if the user group they are members of has full access to the respective object
 - always have administrative rights if they are members of a group with administrative rights
- **Administrators**
 - are members of groups with administrative rights
 - have no access restrictions at all
 - can also manage user accounts, user groups, and cluster setups

- can change the monitoring configuration of PRTG
- ① If a user is a member of more than one user group, the group access rights of the user group with the highest access rights apply.

Understanding Basic Concepts

- [Architecture and User Interfaces](#) ^[130]
- [Cluster](#) ^[135]
- [Object Hierarchy](#) ^[138]
- [Inheritance of Settings](#) ^[142]
- [Tags](#) ^[145]
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- [Access Rights Management](#) ^[155]
- [Data Reporting](#) ^[159]
- [IPv6 Support](#) ^[161]

5.10 Data Reporting

With PRTG, you can view, analyze, and review monitoring data for specific time spans. There are several ways to create customized data reporting.

View Historic Sensor Data

To get an overview of a single sensor's historic data, you can generate historic data reports via the sensor's Historic Data tab.

■ For more information, see section [Historic Data Reports](#) ^[208].

Generate Reports

In addition to reports about a single sensor's historic data, you can also create comprehensive and detailed reports for all monitoring data.

■ For more information, see section [Reports](#) ^[406].

Export Data with the PRTG API

You can also export all raw monitoring data to .xml or .csv files and generate your own reports with any third-party software.

■ For more information, see section [Application Programming Interface \(API\) Definition](#) ^[438].

Make Data Available

You can make monitoring data available to others via a specific read-only user, or you can create public HTML pages to display your monitoring data via the Maps feature.

■ For more information, see section [Access Rights Management](#) ^[155] and section [Maps](#) ^[406].

Understanding Basic Concepts

- [Architecture and User Interfaces](#) ^[130]
- [Cluster](#) ^[135]
- [Object Hierarchy](#) ^[138]
- [Inheritance of Settings](#) ^[142]
- [Tags](#) ^[145]
- [Dependencies](#) ^[148]
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- [Notifying](#) ^[152]
- [Access Rights Management](#) ^[155]
- [Data Reporting](#) ^[159]


- [IPv6 Support](#) ¹⁶¹

5.11 IPv6 Support

PRTG supports the IPv6 protocol for most sensors. You can choose whether you want to query data from your network devices via an IPv4 or IPv6 connection. Specify your preference in the [device settings](#)^[448]. The sensors you add to the device use the protocol that you select.

In the IPv6: Outgoing IP for Monitoring Requests setting of the [PRTG Administration Tool](#)^[4363], you can additionally select the IPv6 address that PRTG uses for outgoing monitoring requests. The same option is also available for IPv4.

 Not all sensors are IPv6 compatible. Incompatible sensors are not selectable on IPv6 devices.

 The hosted probe of a PRTG Hosted Monitor instance does not support the IPv6 protocol. If you want to use sensors that support IPv6, add them to a remote probe device.

 For more information, see section [List of Sensors with IPv6 Support](#)^[4693].

Understanding Basic Concepts

- [Architecture and User Interfaces](#)^[130]
- [Cluster](#)^[138]
- [Object Hierarchy](#)^[138]
- [Inheritance of Settings](#)^[142]
- [Tags](#)^[145]
- [Dependencies](#)^[148]
- [Scheduling](#)^[150]
- [Notifying](#)^[152]
- [Access Rights Management](#)^[155]
- [Data Reporting](#)^[159]
- [IPv6 Support](#)^[161]

Part 6

Basic Procedures

6 Basic Procedures

The following sections introduce the basic features and concepts of PRTG.

Basic Procedures

- [Login](#) ^[164]
- [SSL Certificate Warning](#) ^[169]
- [Welcome Page](#) ^[174]
- [General Layout](#) ^[183]
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- [Main Menu Structure](#) ^[278]


6.1 Login

For PRTG on premises installations, you can log in to the PRTG web interface once the PRTG core server is installed. In your browser, open the IP address or Domain Name System (DNS) name of the PRTG core server system and click Login.

You can look up and change the web server settings of PRTG on premises installations at any time in the [PRTG Administration Tool](#)^[4347] on the PRTG core server system. In particular, when you access PRTG from the internet, you should use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. To secure your connection, click Switch to SSL/TLS under Enable SSL/TLS for the PRTG web interface on the welcome screen.

Load the PRTG Web Interface

In a web browser, enter the IP address or URL of the PRTG core server system. If you use a cluster, connect to the master node. You can also double-click the PRTG Network Monitor desktop icon on the PRTG core server system.

 If you run PRTG on localhost, do not use the DNS name <http://localhost> to log in to the PRTG web server, as this might considerably slow down the PRTG web interface. Use your local IP address or <http://127.0.0.1> instead.

If you see an SSL certificate warning in your browser, you can usually confirm it.

 For more information, see section [SSL Certificate Warning](#)^[169].

The PRTG web interface is your access to PRTG via a web browser. The PRTG web interface is based on Asynchronous JavaScript and XML (AJAX). It uses a responsive design to adjust to the size of your screen.

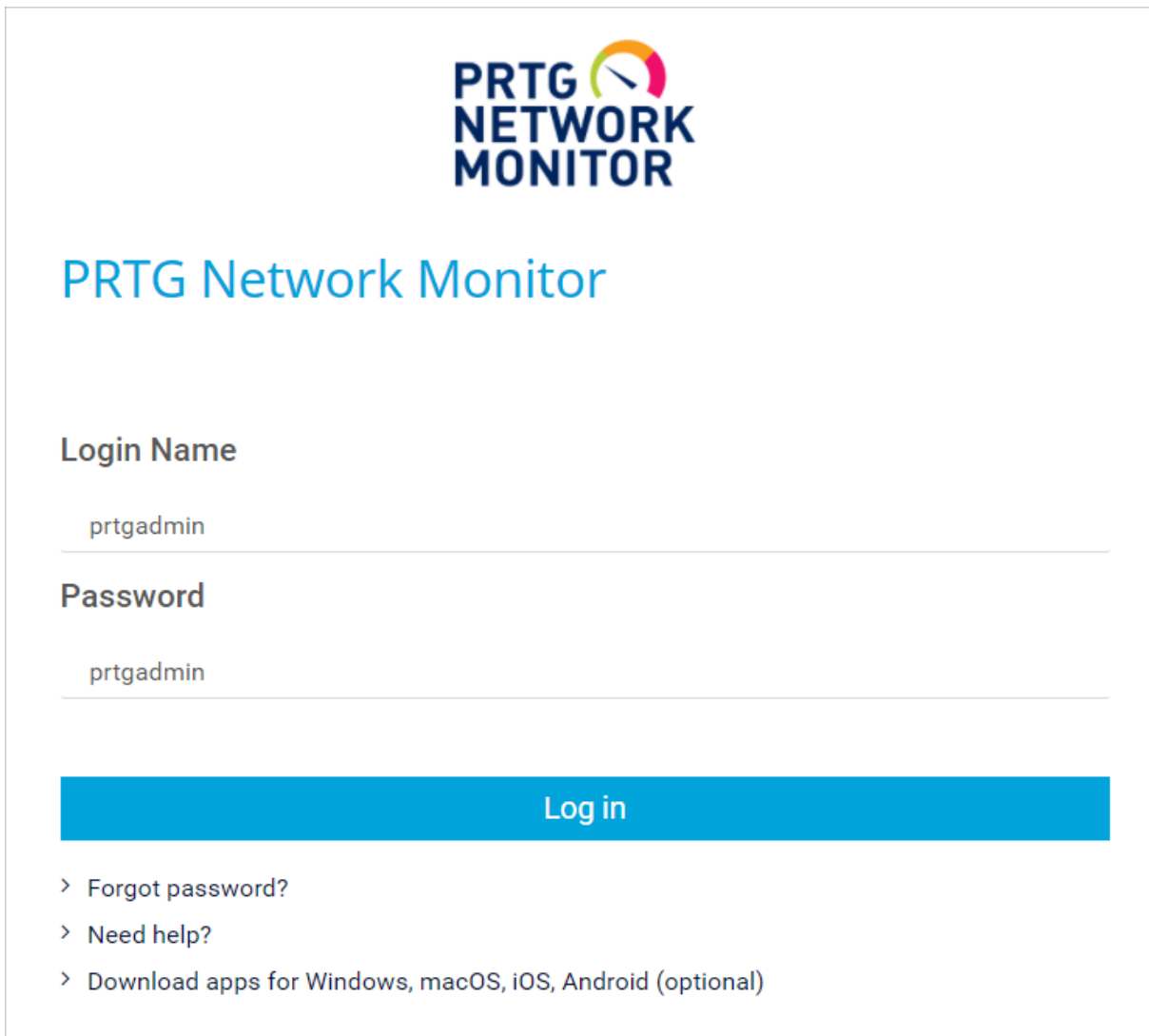
Use the PRTG web interface as the default interface to set up your monitoring. You can use it to configure devices and sensors, to set up notifications, to review monitoring results, to create reports, and to visualize your monitoring on dashboards.

While you are [logged in](#)^[164], the PRTG web interface continuously refreshes the data on the screen via AJAX calls. This way, you are always up to date regarding your monitoring results. You can individually [set](#)^[4215] the refresh interval and method.

With the Single Page Application (SPA) technology, your system stays highly performant because only single page elements are refreshed when necessary.

Login Screen of PRTG on premises

After loading the PRTG web interface, the login screen is visible. You can either log in as the predefined [PRTG System Administrator](#) user or as any other user. As an administrator, you can use all functionalities of the PRTG web interface. Administrators can [create additional users](#)^[4211] with administrative rights or users with more restricted user access rights (for example, read-only users).



PRTG NETWORK MONITOR

PRTG Network Monitor

Login Name

prtgadmin

Password

prtgadmin

Log in




- > [Forgot password?](#)
- > [Need help?](#)
- > [Download apps for Windows, macOS, iOS, Android \(optional\)](#)

PRTG on premises Login Screen

Login as Predefined Administrator (First Time Login)

 This only applies to PRTG on premises installations, not to PRTG Hosted Monitor instances.

When you log in for the first time, the login name and password for the predefined [PRTG System Administrator](#) user account are both `prtgadmin`. PRTG automatically fills in the default credentials and shows the password in plain text.

-  After login, you should change the default password. To do so, go to [Setup | Account Settings | My Account](#) and specify a new password in section [User Account Settings](#).
-  If you are not logged in to the PRTG web interface, you can change the credentials for the predefined user account at any time in the [PRTG Administration Tool](#).
-  If you enter a different login name or change your password, the password is no longer shown in plain text.

Login as User (PRTG on premises)

If you received user credentials from your system administrator, enter them in the PRTG on premises login screen to log in to the PRTG web interface. This also applies if you use other administrator credentials.

Login Options (PRTG on premises)

- Log in: Log in to the fully featured PRTG web interface. We recommend that you use this option for PRTG whenever possible. It offers the full functionality of PRTG. Use Google Chrome 72 or Mozilla Firefox 65 for best performance.
 - ❗ Although you can log in with Microsoft Internet Explorer 11, the PRTG web interface might not be fully compatible with Internet Explorer. If you use Microsoft Internet Explorer 11, set the security level to Medium-high (or lower) and make sure that no Compatibility View is enabled.
 - Download apps for Windows, macOS, iOS, Android (optional): Opens Setup | Optional Downloads in the PRTG web interface. You can optionally [download](#)⁴²⁶² the [PRTG apps](#)⁴²⁷⁸ for iOS or Android or [PRTG Desktop](#)⁴²⁷⁵.
 - ❗ If you use this download option, you require your login name and password (or the default credentials) for login.
- ❗ Only Google Chrome 72 and Mozilla Firefox 65 are fully compatible with the PRTG web interface.

Enter specific credentials or use the default credentials that PRTG fills in automatically. Click Login to proceed to the PRTG web interface.

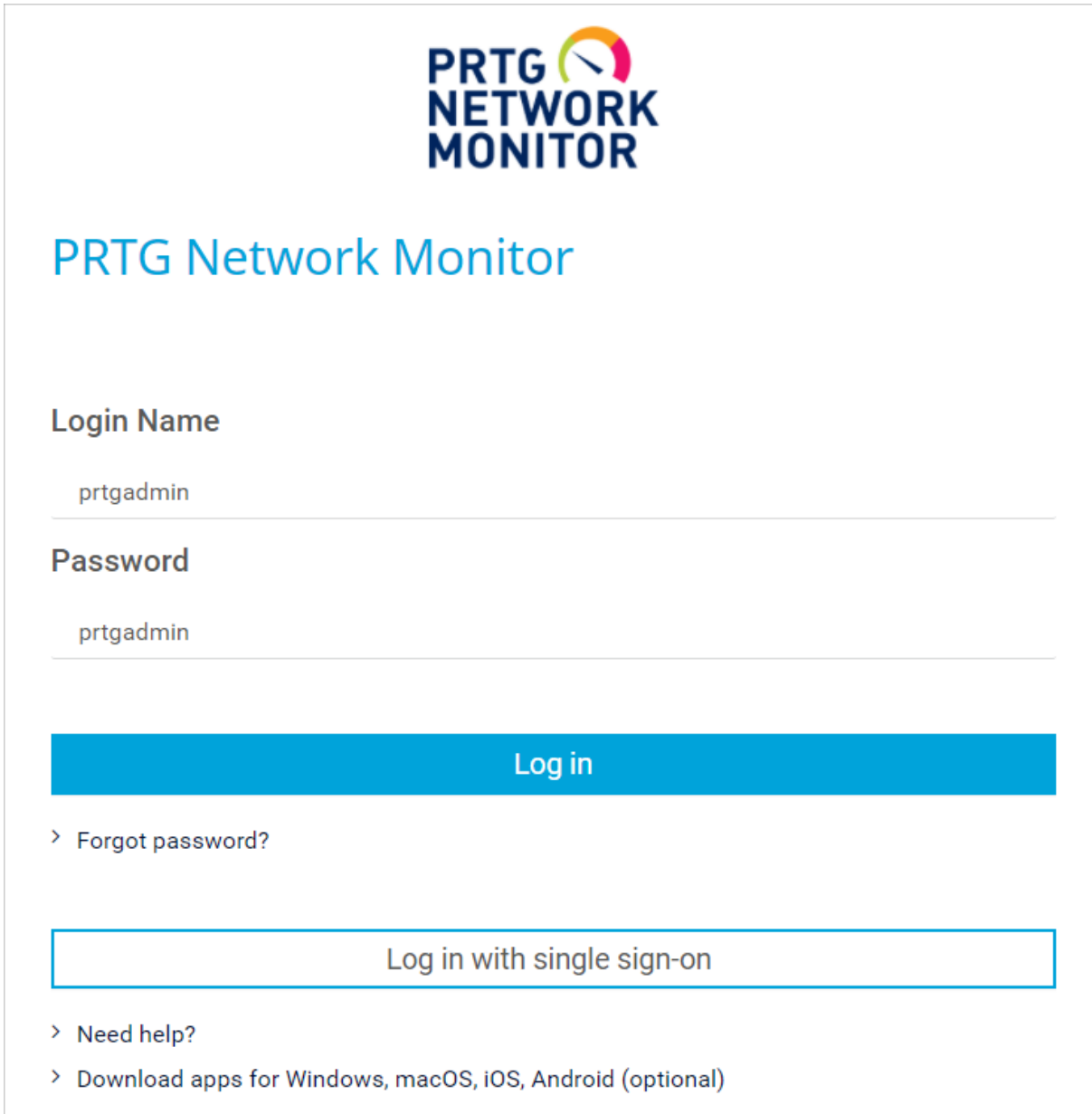
Recover Password (PRTG on premises)

If you cannot remember your PRTG on premises password, click the Forgot password? link. The Password Recovery page opens. Enter your Login Name, click Request a New Password, and PRTG sends an email to the primary email address of your user account. Click the link in the email to set a new password. The link is valid for 60 minutes. Enter a New Password, then enter it again under Confirm Password. Click Set New Password to change your password.

- ❗ The password must be at least 8 characters long and must contain a capital letter and a number.
- ❗ When the password is successfully reset, all active user sessions of this user account are logged out. Log in again with the new password.

Login Screen with Single Sign-On (SSO)

After you [configure SSO](#)⁴²³², you see a new button on the login screen of the PRTG web interface.



PRTG NETWORK MONITOR

PRTG Network Monitor

Login Name

prtgadmin

Password

prtgadmin

Log in

> Forgot password?

Log in with single sign-on

> Need help?
















> Download apps for Windows, macOS, iOS, Android (optional)

Log in with SSO

Click Log in with single sign-on to continue with the login procedure of the single sign-on provider. After finishing the login procedure, you will be transferred back to PRTG.

Basic Procedures

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6.2 SSL Certificate Warning

If you use PRTG on premises outside your internal LAN, in particular if you use it on the internet, you should set the PRTG web server [to use Secure Sockets Layer \(SSL\)/Transport Layer Security \(TLS\)](#). Your browser then shows an SSL certificate warning because PRTG comes with a self-signed certificate. The connection to your PRTG web server is secured with SSL/TLS anyway and you can confirm the claimed security risk.

Every browser shows a slightly different SSL certificate warning that you need to confirm to proceed:

- [Google Chrome](#)
- [Mozilla Firefox](#)
- [Internet Explorer](#)
- [Other](#)

✂ You can avoid these browser warnings if you [use your own trusted SSL certificate](#) with PRTG. For this purpose, we provide the freeware tool [PRTG Certificate Importer](#).

Google Chrome

In Google Chrome, click Advanced, then click Proceed to [yourPRTGserver] (unsafe) every time you open the PRTG web interface.

Your connection is not private

Attackers might be trying to steal your information from **127.0.0.1** (for example, passwords, messages, or credit cards). [Learn more](#)

NET::ERR_CERT_AUTHORITY_INVALID

Help improve security on the web for everyone by sending [URLs of some pages you visit, limited system information, and some page content](#) to Google. [Privacy policy](#).

Advanced 1 Back to safety

Your connection is not private

Attackers might be trying to steal your information from **127.0.0.1** (for example, passwords, messages, or credit cards). [Learn more](#)

NET::ERR_CERT_AUTHORITY_INVALID

Help improve security on the web for everyone by sending [URLs of some pages you visit, limited system information, and some page content](#) to Google. [Privacy policy](#).

Hide advanced Back to safety

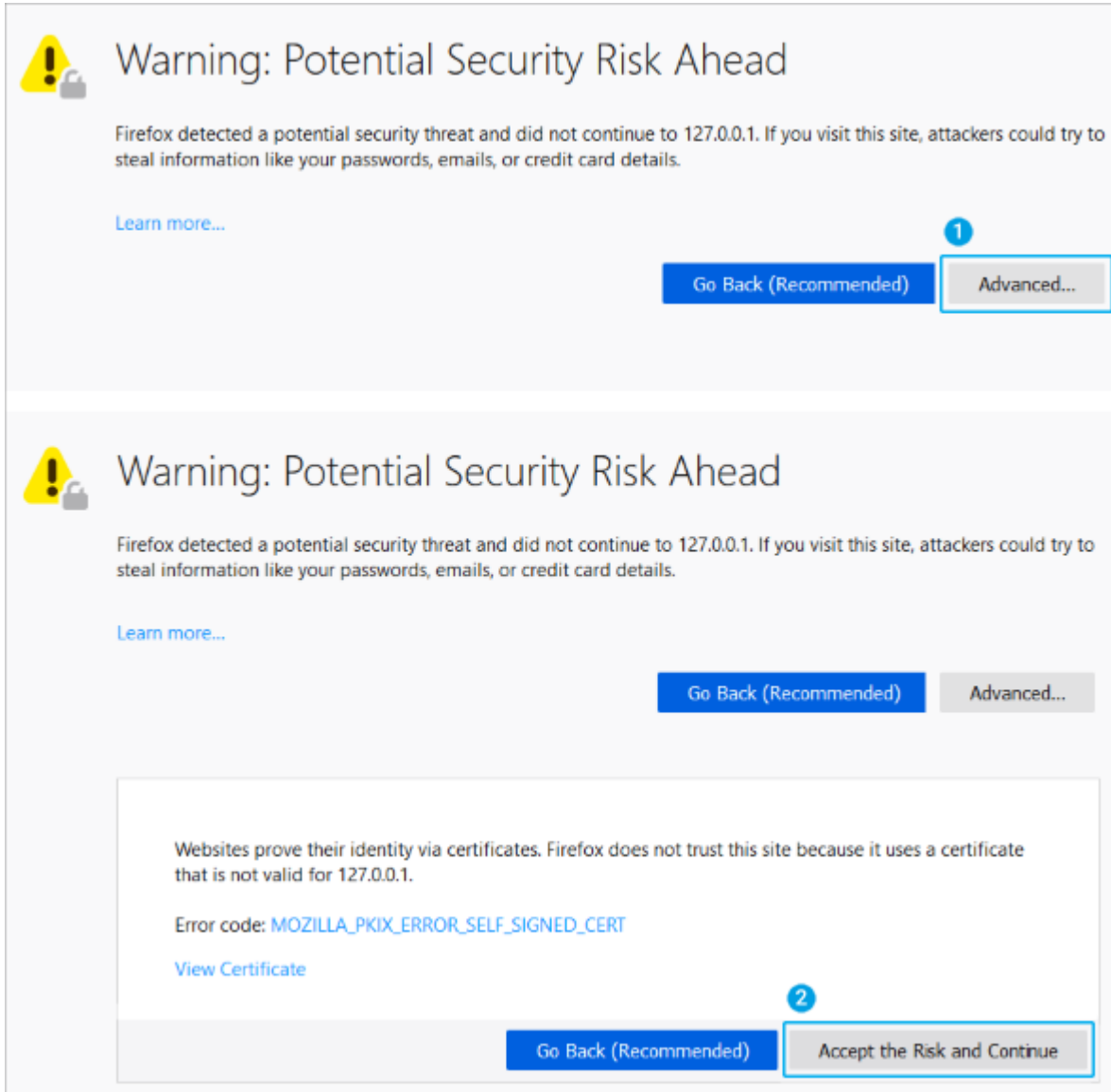
This server could not prove that it is **127.0.0.1**; its security certificate is not trusted by your computer's operating system. This may be caused by a misconfiguration or an attacker intercepting your connection.

Proceed to 127.0.0.1 (unsafe) 2

SSL Certificate Warning in Chrome

Mozilla Firefox

In Mozilla Firefox, click Advanced, then click Accept the Risk and Continue.

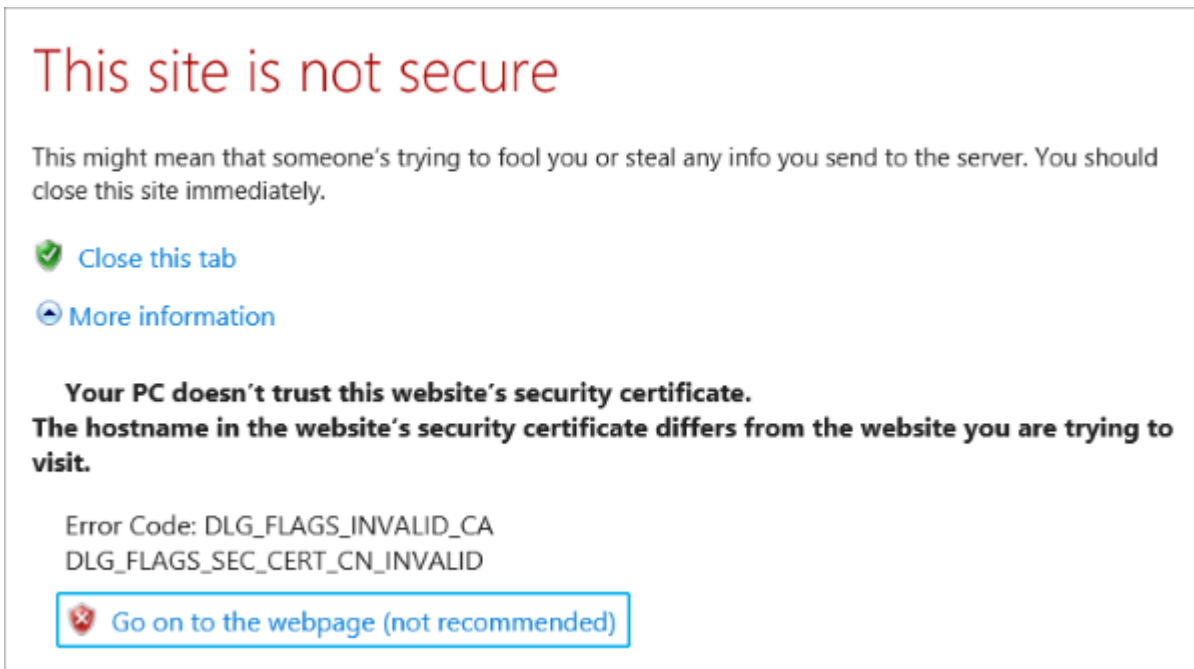


SSL Certificate Warning in Firefox

① You only have to take these steps once for every Firefox browser session and PRTG core server.

Internet Explorer

In Internet Explorer, click Go on to the webpage (not recommended) every time you open the PRTG web interface.



SSL Certificate Warning in Internet Explorer

Other

The procedure is similar for other browsers that are not officially supported.

More

KNOWLEDGE BASE

Why can't I save my PRTG password in Google Chrome?

- <https://kb.paessler.com/en/topic/61982>

PAESSLER TOOLS

PRTG Certificate Importer

- <https://www.paessler.com/tools/certificateimporter>

Basic Procedures

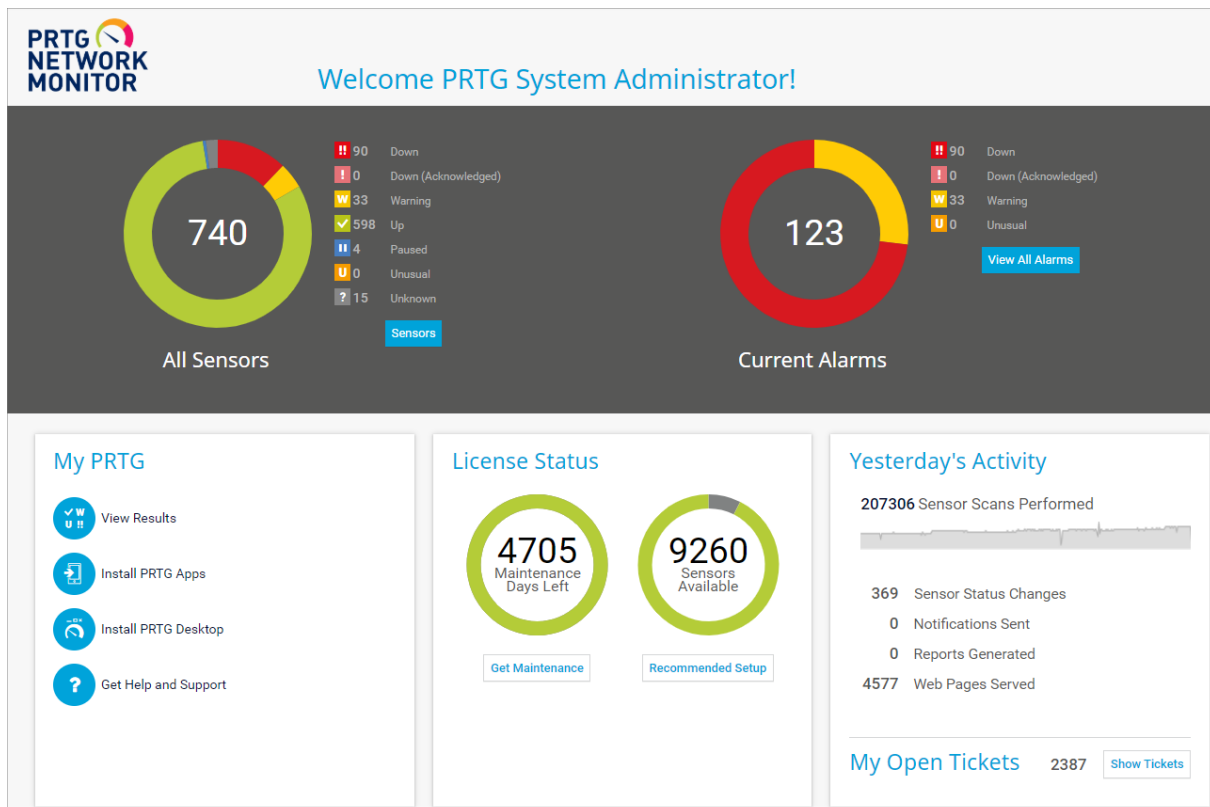
- [Login](#) ¹⁶⁴
- [SSL Certificate Warning](#) ¹⁶⁹
- [Welcome Page](#) ¹⁷⁴
- [General Layout](#) ¹⁸³
- [Sensor States](#) ¹⁹⁷
- [Review Monitoring Data](#) ²⁰¹
- [Historic Data Reports](#) ²⁰⁸

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- [Recommended Sensors](#) ^[221]
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6.3 Welcome Page

After you completed the [smart setup](#)^[48], you see the Welcome page by default when you log in to the PRTG web interface. The collected information about your PRTG installation makes the page a good starting point for your daily monitoring activities. You can set a different homepage in your [account settings](#)^[4127], section Web Interface. Of course, you can also use the [Maps](#)^[4086] feature to create customized dashboards that you can use as your homepage.

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.



Welcome to PRTG

Sensor Overview

The Welcome page displays various information about your PRTG installation and is similar to a dashboard. It keeps you informed about all sensors and alarms:

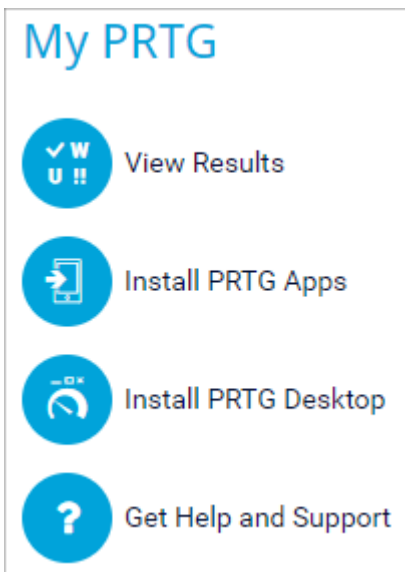


Sensor Overview on the Welcome Page

- Click Sensors to open the [top 10 lists](#) for sensors.
- Click View All Alarms to open a [list of alarms](#) in your installation.
- Click a sensor [status](#) to open a list of all sensors with the corresponding status.

My PRTG Section

In the My PRTG section, you can directly access different pages in the PRTG web interface.



My PRTG Section on the Welcome Page

Option	Description
View Results	Open the device tree that shows your monitoring results.
Install PRTG Apps	Open the download page for the PRTG apps for iOS or Android .
Install PRTG Desktop	Open the download page for PRTG Desktop .

Option	Description
Get Help and Support	Open the Help and Support Center from where you can access the PRTG Manual, the Knowledge Base, and video tutorials. You can also open support tickets and contact our customer service from this page.
Manage Subscription	This option is only visible if you use PRTG Hosted Monitor. Open your PRTG Hosted Monitor dashboard and manage your subscriptions.

Other Sections

Other sections are, for example, the License Status section, the Yesterday's Activity section, the Paessler Blog section, and the Update Available section.

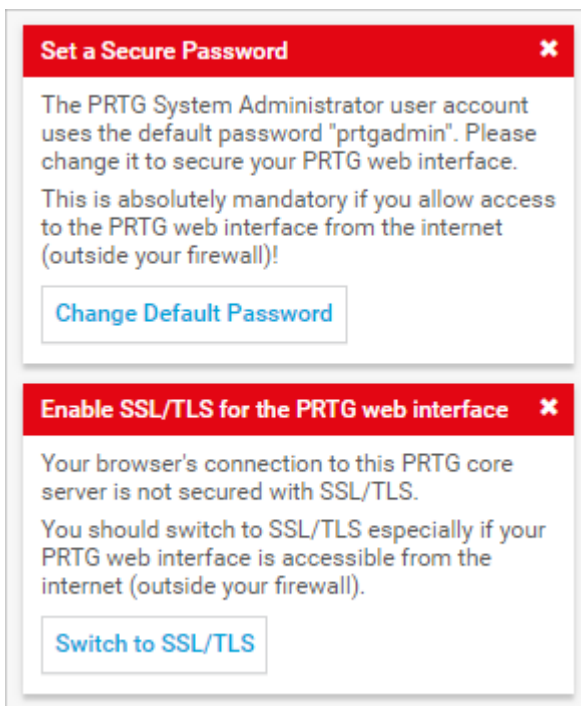
License Status Section and Yesterday's Activity Section on the Welcome Page

Section	Description
License Status	<p>Shows the number of your remaining maintenance days for PRTG on premises and the number of sensors that you can still add with your license. Click Get Maintenance to open the Paessler shop and extend your maintenance for PRTG on premises installations. Click Get More Sensors to open the Paessler shop and upgrade your license. See also section License Information.</p> <p>i For technical reasons, the number of available sensors that is displayed here does not include sensors in the Paused status because they do not count towards the maximum number of sensors that your license allows. Add the number of your sensors that are in the Paused status to the displayed number to know exactly how many sensors are still available on your installation.</p>



Section	Description
	<p>i If you use a PRTG on premises license with an unlimited number of sensors, PRTG takes 10,000 sensors as the starting point to calculate the number of available sensors that is displayed here. Consider the system requirements^[23] for a recommended PRTG core server setup and click Recommended Setup for more information.</p>
Yesterday's Activity	Shows what your PRTG core server or PRTG Hosted Monitor instance did for you on the day before. Hover over the mini graph to show the number of sensor scans on a specific day. See also the Activity History in section System Status ^[4240] . Click Show Tickets under My Open Tickets to display all open tickets that are assigned to you.
Paessler Blog	Shows recent information about PRTG and Paessler. Click the heading of an article to open it on the Paessler website.
Update Available	This section is only visible if an update is available. It shows the version number of your PRTG on premises installation and the version number of the latest available PRTG version. You see the label NEW if a newer version is available. Click Install Update to open the Auto-Update ^[4257] page.

Further options

There are some further options on the Welcome page, for example, you can set a secure password or enable SSL/TLS for the PRTG web interface.




Further Options on the Welcome Page


- If your PRTG on premises installation is not Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured, PRTG asks you to Enable SSL/TLS for the PRTG web interface. Click Switch to SSL/TLS and in the Do you want to switch to SSL/TLS? dialog, click Yes, switch to SSL/TLS to enable SSL/TLS. See also section [User Interface](#)^[4175]. Click  to remove this note.
- If you still use the default password of the **PRTG System Administrator** user (`prtgadmin`) for a PRTG on premises installation, PRTG asks you to Set a Secure Password if your PRTG web interface is publicly available. Click Change Default Password to define a new password. See also section [User Accounts](#)^[4212]. Click  to remove this note.
- In the video section, you find informative videos about monitoring with PRTG. Click a video to open it and play it on the Paessler website.

Basic Procedures

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- [Welcome Page](#)^[174]
- [General Layout](#)^[183]
- [Sensor States](#)^[197]
- [Review Monitoring Data](#)^[201]
- [Historic Data Reports](#)^[208]
- [Similar Sensors](#)^[215]
- [Recommended Sensors](#)^[221]
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- [Object Selector](#)^[251]
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- [Pause](#)^[256]
- [Context Menus](#)^[259]
- [Hover Popup](#)^[275]
- [Main Menu Structure](#)^[278]

6.3.1 Customer Service

If you have any questions about license purchases, upgrades, or maintenance extensions, you can directly contact the Paessler Customer Service from the [Help and Support Center](#)  in the PRTG web interface. We readily assist you with quotes or information about licenses and maintenance, and guide you through the purchasing process. Our Customer Service team is also happy to send you the contact information of a knowledgeable PRTG partner in your region or research any technical specifications you might need beforehand.

 PRTG securely transmits your feedback or questions to Paessler via the PRTG Cloud. Make sure that your PRTG core server has access to the internet and can reach the URL <https://api.prtgcloud.com:443> for successful transmission.

Contact Paessler Customer Service / Send Your Feedback to Paessler
✕

Ask a Question or Give Us Your Feedback

Your Name

John Q. Public

Your Email Address

JohnQPublic@company.com

Your Country

Deutschland (Germany) ▼

Your Phone Number

+49

How Can We Help?

Information on licensing

Need a quote

Need contact to a Technical Presales Engineer

Need contact to a partner/reseller in my country

Other

Emotional State

OK ▼

Cancel
Submit

Customer Service Contact Form


Ask a Question or Give Us Your Feedback

Provide the following information in this section of the Contact Paessler Customer Service form.
















Field	Description
Your Name	Enter your full name for contact information.

Field	Description
Your Email Address	Enter an email address with which we can reach you.
Your Country	Select the country in which you run PRTG so that we can provide you with contact information for a partner nearby.
Your Phone Number	Enter a phone number with which we can reach you.
How Can We Help?	Select the scope of your question.
Emotional State	If you want to, you can indicate your feelings about PRTG and your purchase process.
Describe Your Question in One Sentence	Provide a short description that indicates the topic of your request.
Do You Have Any Further Comments?	Enter your comments here. This can be feedback or any questions for our customer service.







Click OK to send your question or feedback to our customer service. Click Cancel to close the customer service contact form without sending it.

 If you have technical questions about your setup, [contact the Paessler support team](#) .

Basic Procedures

- [Login](#) 
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- [Historic Data Reports](#) 
- [Similar Sensors](#) 
- [Recommended Sensors](#) 
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- [Alarms](#) 
- [System Information](#) 
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6.4 General Layout

This section provides a general overview of the structure of the PRTG web interface. The central focus is the Devices view, which you can select via the [main menu bar](#)^[279]. The Devices view presents the device tree and your monitoring results.

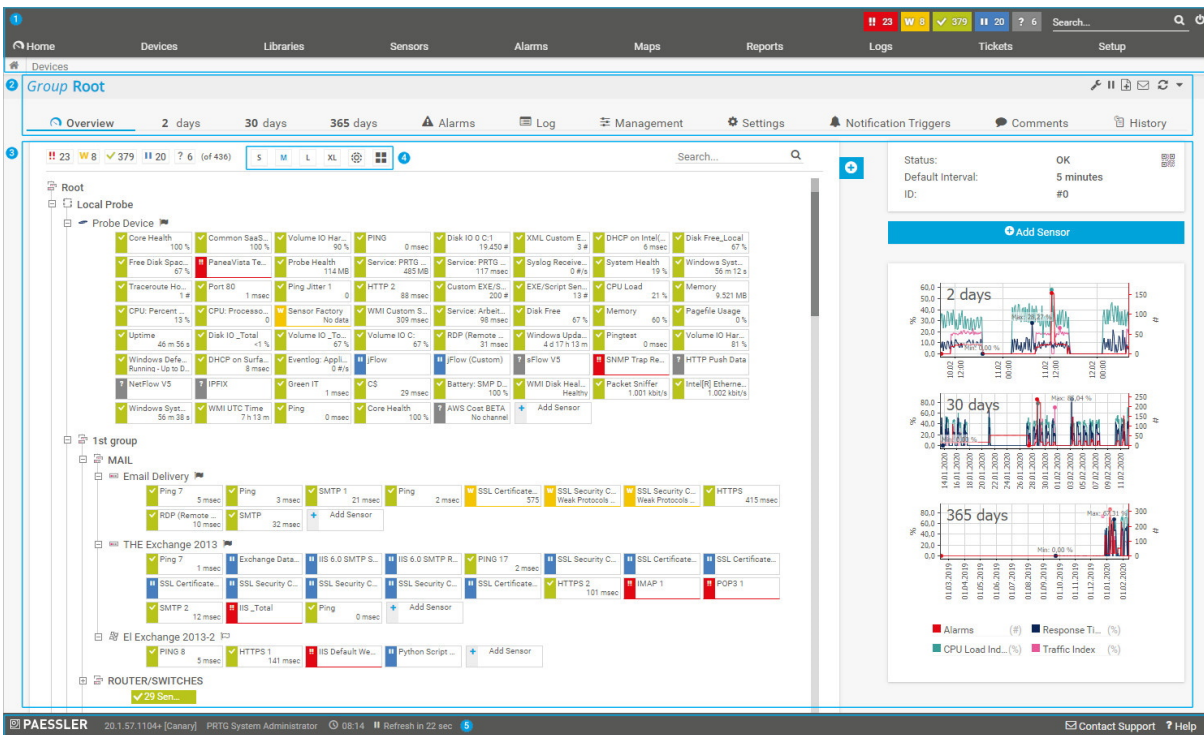
Welcome Page

When you log in to the PRTG web interface, you see the [Welcome page](#)^[174] by default. You can set a different homepage in your [account settings](#)^[4127], section Web Interface.

Click View Results to open the device tree.
















Device Tree View Layout

Click View Results on the Welcome page or select Devices from the main menu bar to display the device tree.



Device Tree

From top to bottom, the device tree page has several areas that are covered in further detail in this section. For a general overview of the device tree page, see the table below.

Screen Number	Page Area Name	Description
1	Global header area 	This area contains the main menu bar at the very top, the global status bar, breadcrumbs that show the path to the selected object, a quick search box, and the logout button.
2	Page header bar 	This area contains the page heading with the name of the selected object, several tabs with settings, and quick action buttons.
3	Page content 	This area contains information about the selected object and all other objects underneath in the device tree hierarchy, the object's status bar, a quick search box, the QR code that links to the URL of the selected page, and graphs for different time spans.
4	Viewing options 	These buttons are part of the page content. Here you can adjust how your device tree is displayed.
5	Page footer	<p>This area shows information about the version of PRTG, the logged in user account, and the time (depending on the time zone settings  for the logged in user).</p> <p>A timer counts down how much time remains until the next automatic page refresh. Click  to pause the refresh timer and click  to resume. If you open a different page while the refresh timer is paused, the timer resumes automatically and starts with the defined Refresh Interval (Sec.) that you can configure in your account settings.</p> <p> Long table lists  that are set to display 1000 items at a time are excluded from the automatic refresh to ensure system performance.</p>
	Page footer icons	<p>Click  for quick access to the auto-update  settings if a new version is available. To open the Contact Support form , click . For context-sensitive help, click .</p> <p>If you run PRTG in a cluster, you also see a cluster-related element. It shows the name of the cluster node that you are logged in to and displays whether this is a master node or a failover node. Click the bar to show the cluster status . On a failover node, you can review all data, but PRTG does not save changes in the settings. To change the settings, log in to the master node.</p>

Navigation

To navigate the PRTG web interface, the following options are available:

- The main menu bar provides access to all important aspects of the software.
- The quick search is often the fastest way to find a specific object (for example, a sensor or a device).
- The clickable breadcrumbs show the path to a selected object in the object hierarchy.
- Click an object to see its details. In the page heading of the page header bar, you always see the name of the object that you have selected.
- Use the page tabs to switch between various subpages.
- Right-click objects to open their [context menu](#) ^[259].
- Hover over objects to display tool tips. Hover longer to open a quick-access window ([hover popup](#) ^[275]).
- Drill down into the object hierarchy of probes, groups, devices, and sensors in the device tree. To do so, click a subobject of the displayed object (for example, click a sensor on a device's Overview tab).

These navigation options offer complete access to the functionality of PRTG.

In the following sections, we describe the different areas of the PRTG web interface.

Global Header Area

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.



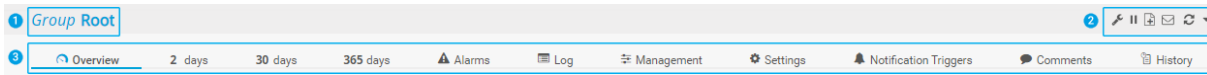
Global Header Area

The global header area of the PRTG web interface provides important, very condensed information about your installation and offers access to all content and settings. The following table lists the elements that make up the global header area.

Screen Number	Part	Description
1	Main Menu Bar	<p>To navigate the PRTG web interface, the main menu bar is the best starting point. We recommend that you take a few minutes to familiarize yourself with the main menu bar and its submenus.</p> <p>■ For more information, see section Main Menu Structure^[276].</p>
2	New Alarms, New Log Entries, Updated Tickets	<p>The information boxes show how many new alarms, new log entries, and updated tickets have occurred. Click the respective box to view the lists of alarms^[228], logs^[237], or tickets^[240].</p>
3	Global Sensor Status Symbols	<p>This area shows the accumulated states of all configured sensors, grouped into the different sensor states. You see boxes with numbers that show the amount of sensors that are in the respective status. For example, you can see how many sensors are in the Up, Down, or Warning status. Click a box to view a list of all sensors that are in the respective status.</p> <p>■ For more information, see section Sensor States^[197].</p>
4	Search Box, Logout	<p>You can start a search (🔍) or log out (🔌) via the respective buttons in the top-right corner.</p> <p>To search for an object, enter a name, parts of a name, an IP address, a Domain Name System (DNS) name, or a tag in the search box and confirm with the Enter key. PRTG performs a string search in your entire monitoring setup, including groups, devices, sensors, libraries, maps, reports, tickets, and object comments.</p> <p>A page with items and online help articles that are related to the search term opens.</p>
5	Breadcrumbs	<p>Below the main menu bar, PRTG shows a path that retraces the steps back to the Welcome page (or your defined starting page). Use these breadcrumbs to navigate back to where you came from.</p> <p>If you click ▼ on a breadcrumb item, a dropdown list opens that shows all objects on the same level. You can either search for an object or select one directly. For example, you can directly access all other sensors on a device, other devices within a group, and other groups on the same probe. Other probes in your root group are also available.</p>

Page Header Bar

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.



Page Header Bar

The page header bar below the global header area consists of the following elements.

Screen Number	Part	Description
1	Page Heading	<p>The page heading displays the selected object's type and name. In the screenshot, this is the group that is called Root. Here you can define the object's priority as well. To do so, click one of the five stars (★★★★★) next to the object's name (this setting is not available for the root group).</p> <p>■ For more information, see section Priority and Favorites ^[253].</p>
2	Quick Action Buttons	<p>On the right side is a row of icons for several actions. Depending on the selected page, you can pause (⏸) and resume (▶) the object. You can also open the settings of the object (⚙), add a ticket (🎫), send a link to the selected page per email (✉), or perform an immediate scan (🔄).</p> <p>Click ▼ to open the context menu of the selected object for further options.</p> <p>■ For more information, see section Context Menus ^[259].</p>
3	Tabs	<p>Via tabs you can navigate to the various subpages of an object, for example, to its monitoring data or settings.</p> <p>■ For more information, see sections Review Monitoring Data ^[201] and Object Settings ^[228].</p>

Page Content

The page content of the general layout varies depending on the selected object. It shows information about the object and all other objects underneath in the object hierarchy. The deeper down in the hierarchy you can find a selected object, the more detailed is the displayed information.


Part 6: Basic Procedures | 4 General Layout

The screenshot displays the PRTG Network Monitor interface. On the left, a tree view shows the hierarchy: Root > Local Probe > Probe Device > Core Health (100%), Business Proc. (Inactive), Common SaaS (100%), Volume IO Har. (22%), PING (0 msec), Disk IO 0 C:1 (512 #), XML Custom E. (2 #), XML Custom E. (2 #), Disk Free_Local (49%), DHCP on Intel... (2 msec), PaneaVista Te... (Free Disk Spac. 49%), Free Disk Spac. (20.929.323.008 #), Probe Health (Service: PRTG ... 42 msec, Common SaaS... 150 #, Service: PRTG ... 453 MB), Service: PRTG (109 MB), Service: PRTG (42 msec), Syslog Receiv... (0 #/s), Ping Jitter 1 (0), System Health (9 %), Windows Syst... (6.4-6.2 m), HTTP Full Web... (421 msec), Traceroute Ho... (1 #), Port 80 (0 msec), QoS (Quality of... (2 msec), HTTP 2 (66 msec), Custom EXE/S... (200 #), EXE/Script Sen... (76 #), CPU Load (6.21 %), Memory (2.900 MB), CPU: Percent U... (2 %), CPU: Process... (0), Sensor Factory (No data), WMI Custom S... (297 msec), Service: Arbit... (49 msec), SSL Certificate... (1), SSL Security C... (6.60 %), CPU Load (6.60 %), Disk Free (RDP (Remote... 49 %), Memory (56 %), Pagefile Usage (4 %), Uptime (6 h 33 m), Disk IO_Total (49 %), Volume IO_Total (49 %), Volume IO C... (49 %), HTTP (RDP (Remote... 15 msec), Windows Upda... (30 #), SNMP CPU Lo... (5 %), Pingtest (0 msec), Pingtest (0 msec), Pingtest (0 msec), Surface Ethern... (Surface Ethern...), Volume IO Har... (Volume IO Har...), DHCP on Surfa... (2 msec), Eventlog: Appl... (0 #/s), Windows Upda... (30 #), C:\ (49 %), D:\ (1), Cloud HTTP (89 msec), and an Add Sensor button.

Below the tree, a 'Test Group' is shown with 'MAIL' and 'Sonicwall Firewall' categories. The 'MAIL' group includes sensors for IMAP 3, POP3 3 (35 msec), SMTP 1 (16 msec), Ping (6 msec), Ping (12 msec), SSL Certificate... (274), and SSL Security C... (Weak Protocols...). The 'Sonicwall Firewall' group lists numerous sensors for various interfaces (LAN, WAN, UI) with their respective data rates.

On the right side, there is a status bar showing 'Status: OK', 'Default Interval: 5 minutes', and 'ID: #0'. Below this is a world map with 'Add Sensor' and 'Add Sensor' buttons. At the bottom right, three time-series graphs are displayed for durations of 2 days, 30 days, and 365 days, showing data points over time.

Page Content

Screen Number	Part	Description
1	Sensor Status Bar	<p>This element is visible when you view a probe, a group (including the root group), or a device. It is not available on a sensor's Overview tab. The sensor status bar shows the accumulated states of all sensors for the selected object, grouped into different sensor states. They show the number of sensors that are in the respective status.</p> <p>For example, you can see how many sensors are in the Up, Down, or Warning status. You can hide sensors that are in a certain status by clicking the respective status icon. To show the sensors again, click the status icon again.</p> <p>■ For more information on sensor states, see section Sensor States^[197]</p>
2	Viewing Options	<p>This element is only visible when you view a probe or a group. It is not available when you view device or sensor details. For a detailed description, see Switch Device Tree View^[190] below.</p>
3	Device Tree Search	<p>In the search box to the right of the viewing options, enter a keyword to search the device tree for matching items. The device tree highlights matching devices and sensors by graying out all others. This gives you a quick overview of sensors that monitor a specific part of your network. For example, you can enter the keyword <code>firewall</code> to highlight devices and sensors that match this string.</p>
4	Add Button	<p>Click  to add new objects to your monitoring setup. For a detailed description, see Add Button^[193] below.</p>
5	Object Status, Scanning Interval, Object ID, QR Code	<p>This element displays the status of the selected object, the interval in which PRTG scans the object, the ID of the object, and the QR code for the selected page. If you use a PRTG app for iOS or Android^[4278], you can scan the code to directly view the object on your mobile device. Click the QR code to enlarge it for scanning.</p> <p>Depending on the object type, this element shows additional information:</p> <ul style="list-style-type: none"> ▪ All objects underneath the root group show their dependency^[148]. ▪ Groups and devices display the time that has elapsed since the last execution of the auto-discovery^[296] on the selected object. ▪ Devices show their DNS name or IP address as defined in the device settings^[446] and the time that has elapsed since the last execution of the sensor recommendation^[227] on this device. ▪ Sensors show additional monitoring statistics as well as their performance impact^[4243].

Switch Device Tree View

Wherever a probe or group is displayed, you can choose between a number of viewing options.



Classic Device Tree View

Via the Switch Device Tree View buttons in the page header bar, you can adjust how much information is included next to each object. Use the buttons to switch from a very condensed view (**S**) to a very spacious view (**L**). Use **XL** to switch the device tree to a list view.

In the classic device tree view, you can collapse devices, groups, and probes. Click left of the object name to summarize the sensors according to their respective status. By default, sensors in the Down, Down (Partial), or Down (Acknowledged) status are summarized if there are more than ten sensors with the same status, otherwise they are displayed individually.



Collapsed Device with Summarized Up and Unusual States and Individual Down States

Extended Device Tree Views

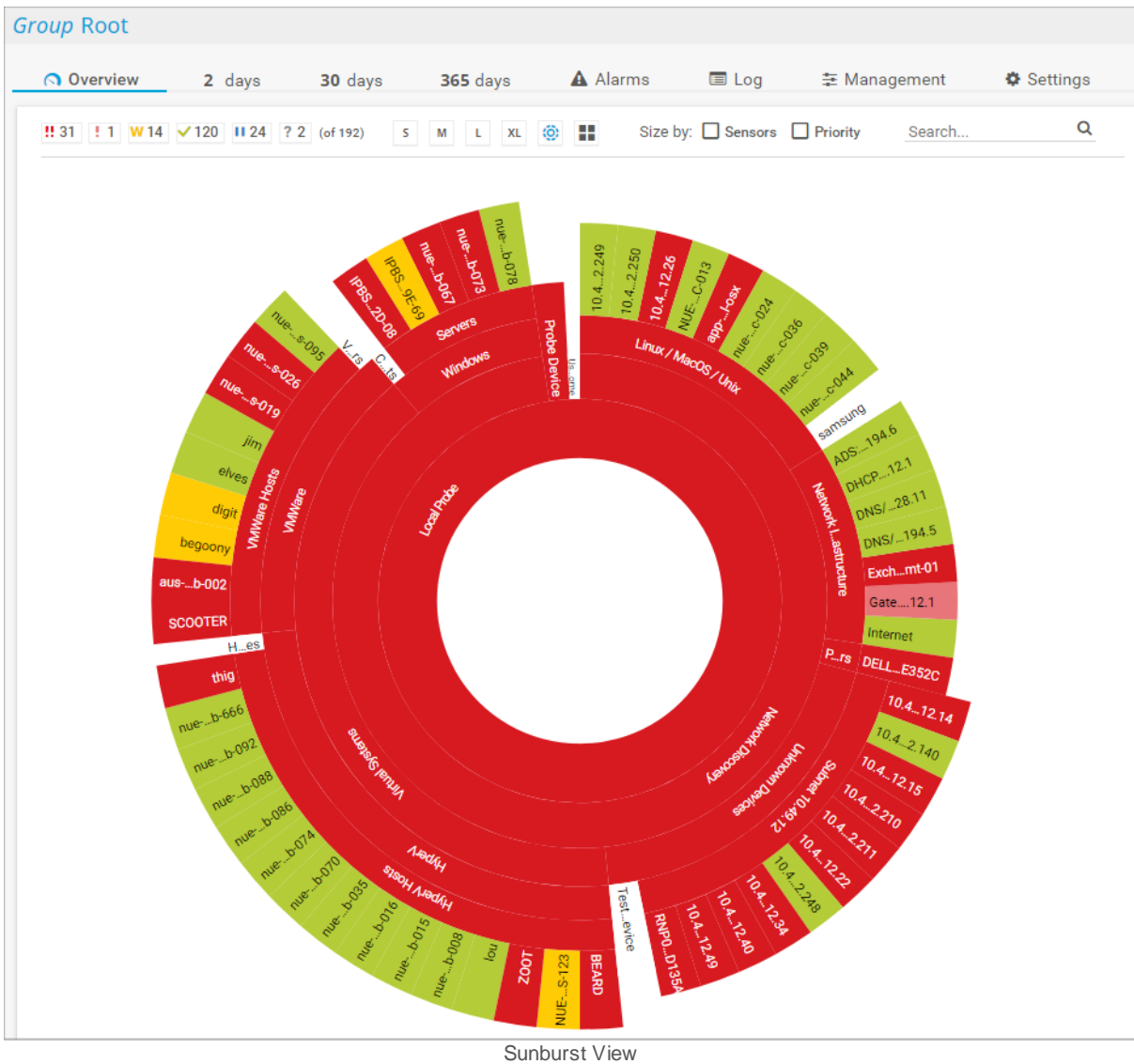
There are two additional options to the classic device tree view with which you can display the status of all sensors of your entire installation in a single overview. Click to change to the sunburst view. To change to the tree map view, click .

Sunburst View

The sunburst view displays your entire installation as a circle diagram. The groups are represented as inner circles, and all devices that belong to a group are shown as 'cake slices' that are attached to the outside of a circle element.

The sunburst is interactive:

- You can click elements to open the Overview tab of your monitoring objects.
- You can zoom in and out with your mouse wheel while pressing the **Ctrl** key.



Tree Map View

The tree map view displays all devices of your entire installation as tiles that are sorted into a square and that are arranged according to the groups they belong to. Each device dynamically changes color to reflect the overall status of the sensors on the device.



Tree Map View








The following aspects apply to both the sunburst view and the tree map view:

Colors

A device or group can have different colors, depending on the states of the sensors that are on the device or in the group. The sensor states are ranked according to their priority, for example, the Down status has a higher priority than the Warning status, which has a higher priority than the Up status.

A tile shows the color of the sensor status with the highest priority. For example, if a device has sensors in the Up (green), Paused (blue), and Warning (yellow) status, the corresponding tile shows a yellow color to indicate that at least one sensor on this device is in the Warning status. If a single sensor changes to the Down status, the corresponding tile turns red.

In the following table, you can find all sensor states sorted by the highest priority to the lowest priority:

Status Icon	Color	Object Status	Meaning
	Red	Down	At least one sensor on this object shows the Down status. Hover over an object's name to view the total number of alarms for this object.
	Light Pink	Down (Acknowledged)	At least one sensor on this object shows the Down (Acknowledged) status. There is no sensor in the Down status.
	Yellow	Warning	At least one sensor on this object shows the Warning status. There is no sensor in the Down or Down (Acknowledged) status.
	Orange	Unusual	At least one sensor on this object shows the Unusual status. There is no sensor in the Down, Down (Acknowledged), or Warning status.
	Green	Up	All sensors on this object show the Up status. There is no sensor in the Down, Down (Acknowledged), Warning, Paused, or Unusual status.
	Blue	Paused	All sensors on this object show the Paused status. There is no sensor in the Down, Down (Acknowledged), Warning, Unusual, or Up status.
	Grey	Unknown	All sensors on this object show the Unknown status. There is no sensor in the Down, Down (Acknowledged), Warning, Unusual, Paused, or Up status.

Size by: Sensors / Size by: Priority

You can adjust the size of the different squares according to the number of sensors that run on a device or in a group, or the sensors' [priority](#) ^[253], or both. Select the check boxes in the page header bar to change the square size.

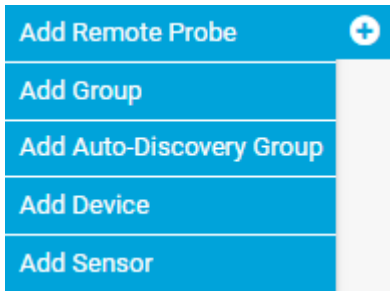
Size by: Sensors Priority

Check Boxes for Adjusting the Square Size

Add Button





Hover over  to add new objects to your monitoring setup. An assistant appears and guides you through the necessary steps.

i The content of the menu varies depending on the selected object.






Add Button Menu

See the following sections for more information:

- [Add Remote Probe](#) 
- [Add an Auto-Discovery Group](#) 
- [Add a Group](#) 
- [Add a Device](#) 
- [Add a Sensor](#)



Default Objects in the Device Tree

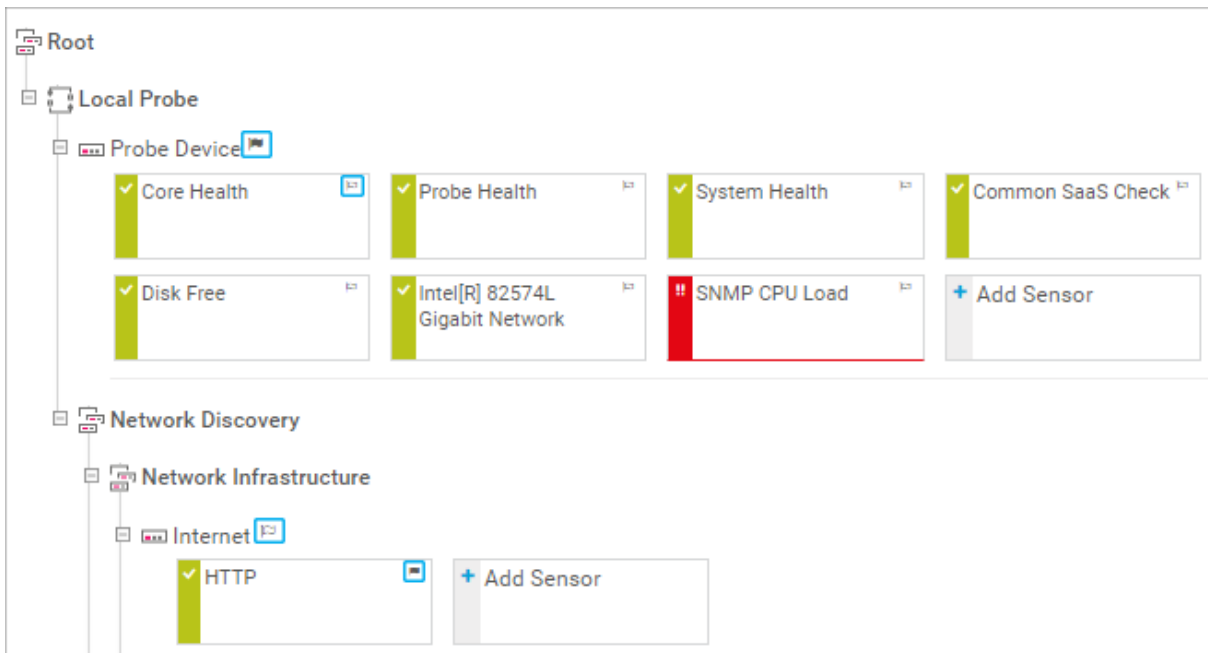
By default, PRTG creates a **probe device** on the local probe (PRTG on premises) or on the hosted probe (PRTG Hosted Monitor). The probe device represents the probe system. PRTG automatically monitors the system health of the PRTG core server and each probe to discover overload that might distort monitoring results. To monitor the status of the probe system, PRTG automatically creates the following sensors:

- [Core Health sensor](#) 
- [Probe Health sensor](#) 
- [System Health sensor](#) 
- Some device-specific sensors for disk usage and bandwidth.

In a cluster, PRTG also creates a **cluster probe device** with a [Cluster Health sensor](#) 

Priority and Favorites

You can mark a device or sensor as a favorite. To do so, click  to the right of the respective object in the device tree. The flag turns dark gray. To remove an object from your favorites, click . The flag turns transparent again.



One-Click Favorites in the Device Tree

i The favorite flag for sensors is available for the **L** or **XL** viewing options.

A quick way to set the priority of an object is via the five stars in the [page header bar](#)¹⁸⁵ next to the object name. Click the stars to adjust the priority. ★★★★★ means top priority, ★☆☆☆☆ means lowest priority.















One-Click Favorite and Priority in the Page Header Bar

You can also add any device or sensor to your favorites in the page header bar of the respective object. To do so, click for a device or for a sensor. Click for a device or for a sensor to remove the respective object from your favorites.

For more information, see section [Priority and Favorites](#)²⁵³.

Basic Procedures




- [Login](#)¹⁶⁴
- [SSL Certificate Warning](#)¹⁶⁹
- [Welcome Page](#)¹⁷⁴
- [General Layout](#)¹⁸³
- [Sensor States](#)¹⁹⁷
- [Review Monitoring Data](#)²⁰¹
- [Historic Data Reports](#)²⁰⁸
- [Similar Sensors](#)²¹⁵
- [Recommended Sensors](#)²²¹






- [Object Settings](#) 
- [Alarms](#) 
- [System Information](#) 
- [Logs](#) 
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- [Working with Table Lists](#) 
- [Object Selector](#) 
- [Priority and Favorites](#) 
- [Pause](#) 
- [Context Menus](#) 
- [Hover Popup](#) 
- [Main Menu Structure](#) 

6.5 Sensor States

The color of a sensor indicates its status. In the table below, you find a list of states that a sensor can show. This list also reflects the priority of the sensor states whenever PRTG shows summarized sensor states, for example, in the [device tree](#)^[183] or on [geographical maps](#)^[4026]. For example, if all sensors on a specific device show the Up status and one of the sensors changes to the Down status, the device shows the Down status as well because this status has a higher priority. The device is then displayed as a red tile in the [extended device tree views](#)^[190].

i The Down and Down (Partial) states are considered to be equal regarding status priority.

Status Icon	Color	Status Name	Meaning
	Red	Down	<ul style="list-style-type: none"> PRTG is unable to reach the device or the sensor has detected an error. For more information, see section Sensor Behavior for the Warning and Down States^[198]. <ul style="list-style-type: none"> i In this case, a sensor does not record any data in its channels while it shows the Down status. There is an error limit in the channel settings^[3977] or the sensor shows the Down status because of a lookup^[4485]. <ul style="list-style-type: none"> i In this case, the sensor continues to record data in all channels although it shows the Down status.
	Green/Red	Down (Partial)	<p>In a cluster, at least one cluster node reports that this sensor shows the Down status, while at least one other cluster node reports that the same sensor shows the Up status.</p> <ul style="list-style-type: none"> i This status is not available for sensors on remote probes in a cluster^[135].
	Light Pink	Down (Acknowledged)	<p>The sensor is down and the status has been acknowledged via the Acknowledge Alarm function. This indicates that an alarm has already been brought to attention. For acknowledged alarms, PRTG does not send further notifications^[4031].</p> <p>To show the Down (Acknowledged) status, right-click the sensor that shows the Down status. From the context menu^[259], select Acknowledge Alarm, then select a time span, optionally enter a message, and click OK.</p>

Status Icon	Color	Status Name	Meaning
	Yellow	Warning	<ul style="list-style-type: none"> The sensor detected an error and shows the Warning status, but PRTG is trying to reach the monitored device again. The sensor might soon change to the Down status. For more information, see Sensor Behavior for the Warning and Down States ¹⁹⁸. There is a warning limit in the channel settings or the sensor shows the Warning status because of a lookup.
	Orange	Unusual	<p>The sensor reports unusual values for this weekday and time of the day. The unusual detection is based on the sensor's historic average data. You can configure or disable the unusual detection in the system administration settings under Monitoring ⁴¹⁸⁸.</p> <p>You can also disable the unusual detection for specific groups.</p> <ul style="list-style-type: none"> For more information, see section Group Settings ⁴⁴³.
	Green	Up	The last scan was okay and the sensor receives data.
	Blue	Paused	The sensor is paused for a specific time span, indefinitely, or because of a dependency ¹⁴⁸ .
	Gray	Unknown	<p>The sensor has not received any data yet or there is an error in (network) communication, likely on the probe system. If sensors continuously show this status, you might need to restart PRTG.</p> <ul style="list-style-type: none"> For extended troubleshooting, see the Knowledge Base: What to check if sensors are gray? and My sensors show an Unknown status after a PRTG core server restart. What can I do?


Sensor Behavior for the Warning and Down States

The Down status indicates that there is an issue with an object, for example, a device. There are various reasons for the Down status, for example, an interruption in the physical connection to the device or an internet connection outage.

After a failed request, PRTG tries to contact the device again before it sets a sensor to the Down status (this is true for almost all sensors):

1. If a request to a device fails for the first time, the sensor changes to the Warning status. PRTG repeats the request and immediately attempts to rescan the device.
2. If the second request also fails, the sensor changes to the Down status by default until the device is reachable again. You can change this behavior in the [scanning interval](#)^[379] settings of any object in the device tree. PRTG tries to reach the device with every scanning interval.

This procedure gives devices and services the chance to recover from a momentary overload and prevents false alarms. Still, you are immediately informed about any network issues.

-  This behavior does **not** apply to the Warning or Down states that result from warning limits or error limits in the channel settings. This behavior also does **not** apply to channels that use lookups.

More

KNOWLEDGE BASE

What to check if sensors are gray?

- <https://kb.paessler.com/en/topic/25643>

My sensors show an Unknown status after a PRTG core server restart. What can I do?

- <https://kb.paessler.com/en/topic/87266>








VIDEO TUTORIAL

Sensor states

- <https://www.paessler.com/learn/videos/sensor-states>

Basic Procedures

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6.6 Review Monitoring Data

Probe, group, device, and sensor pages have tabs that you can use to navigate between different options. For example, you can view your network's status, view monitoring results, or change settings.

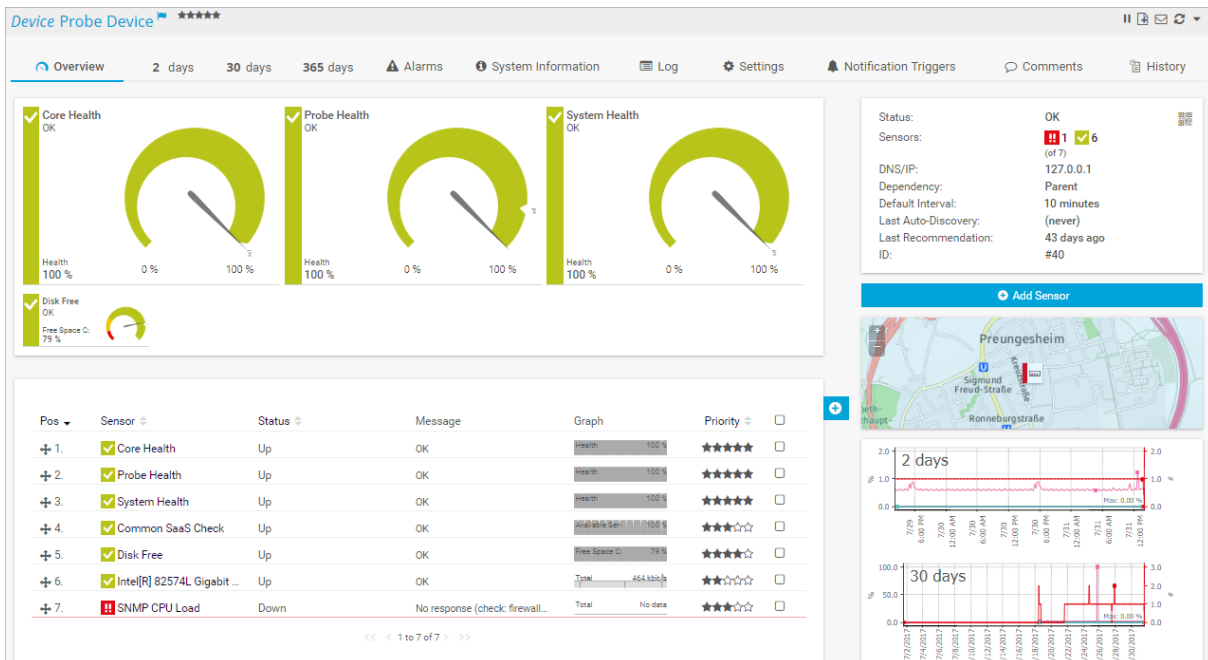


Overview

The Overview tab shows an overview of the selected object and its sensors. The pages share a common structure, but some elements differ depending on the type of object.

Objects	Content
Probes and Groups	The tab shows a tree-like view with devices and sensors, a geographical map ⁴⁰²⁶ , as well as graphs for different time spans of the probe or group.
Devices	The tab shows device details, a geographical map, and graphs for different time spans, gauges, as well as a table list ²⁴⁶ of all sensors on this device, and a table list with recommended sensors ²²¹ . <i>i</i> You can turn off the sensor recommendation and disable the table list in the system administration settings under Monitoring ⁴¹⁹¹ .
Sensors	The tab shows sensor details, the sensor status, gauges, graphs for different time spans, a table list with all channels, as well as similar sensors ²¹⁵ .

i Assign 4-star (★★★★☆) or 5-star (★★★★★) priorities to sensors to display their gauges on your devices' Overview tabs. Sensors with a 5-star priority are represented by larger gauges than sensors with a 4-star priority.



Device Overview Tab with Gauges for High Priority Sensors, the Sensors Table List, a Geographical Map, and Mini Graphs

Gauges

Gauges are the visual representation of channel values that you can use as a quick status indicator.

- Red and yellow sections of gauges correspond to the error and warning limits of the [channel settings](#) ³⁹⁷⁷.
- Device Overview tabs only show gauges of high-priority sensors with 4 stars (★★★★☆) or more.
- Sensor Overview tabs show gauges of all channels except the Downtime channel, regardless of their priority. The primary channel is displayed with a larger gauge.
- Channels that display binary values such as on/off or successful/failing because of their [lookup](#) ⁴⁴⁸⁵ configuration are visualized as [switches](#), not as gauges. Switches only show a gray or a green color for their respective two states.
- The x-bar symbol (\bar{x}) in gauges shows the mean of the returned values.

i For the gauge to remain legible, we recommend that you stay below 120 lookup values for primary channels of sensors with a 5-star priority. For sensors with a priority of 4 stars, the recommended limit is about 40 lookup values.

Toplists

Toplists are only available for [xFlow and Packet Sniffer sensors](#) ⁴⁸⁰⁰. Toplist graphs are displayed directly on the sensor's Overview tab.

For more information, see section [Toplists](#) ⁴⁰⁰².

Live Data and Data By x Days

Select one of the tabs Live Data (only available for sensors), 2 days, 30 days, or 365 days to display an object's live monitoring data (only sensors), or to display data for different time spans and in more or less detail. The time that graph legends and data tables show depends on the [time zone settings](#)⁴²¹⁵ for the logged-in user.

- ❶ The time spans that are mentioned here are the default settings. You can change the shown days for the different graphs in the system administration settings under [User Interface](#)⁴¹⁷⁶.
- ❷ Graphs label the minimum and maximum values of a sensor's primary channel and the minimum and maximum values of the Response Time Index of other objects. A maximum value of 100% is not labeled.



2 Days Tab of a Device with Overview Graph and Sensor Mini Graphs

Live Data and Data By x Days for Probes, Groups, and Devices

For probes, groups, and devices, each of the tabs shows a summary graph for the selected object and mini graphs for all sensors on the object, as well as a data table for the object. For performance reasons, PRTG never displays more than 50 mini graphs. Hover over a mini graph to display the graph legend.

Summary graphs show the number of alarms as well as three [index graphs](#). These graphs indicate the response time, the CPU load, and the bandwidth usage for all sensors. Index graphs are similar to a stock index. The values are based on the readings of all sensors of this object. To compute these values, PRTG uses statistics and compares the values to the highest and lowest readings that have ever been recorded.

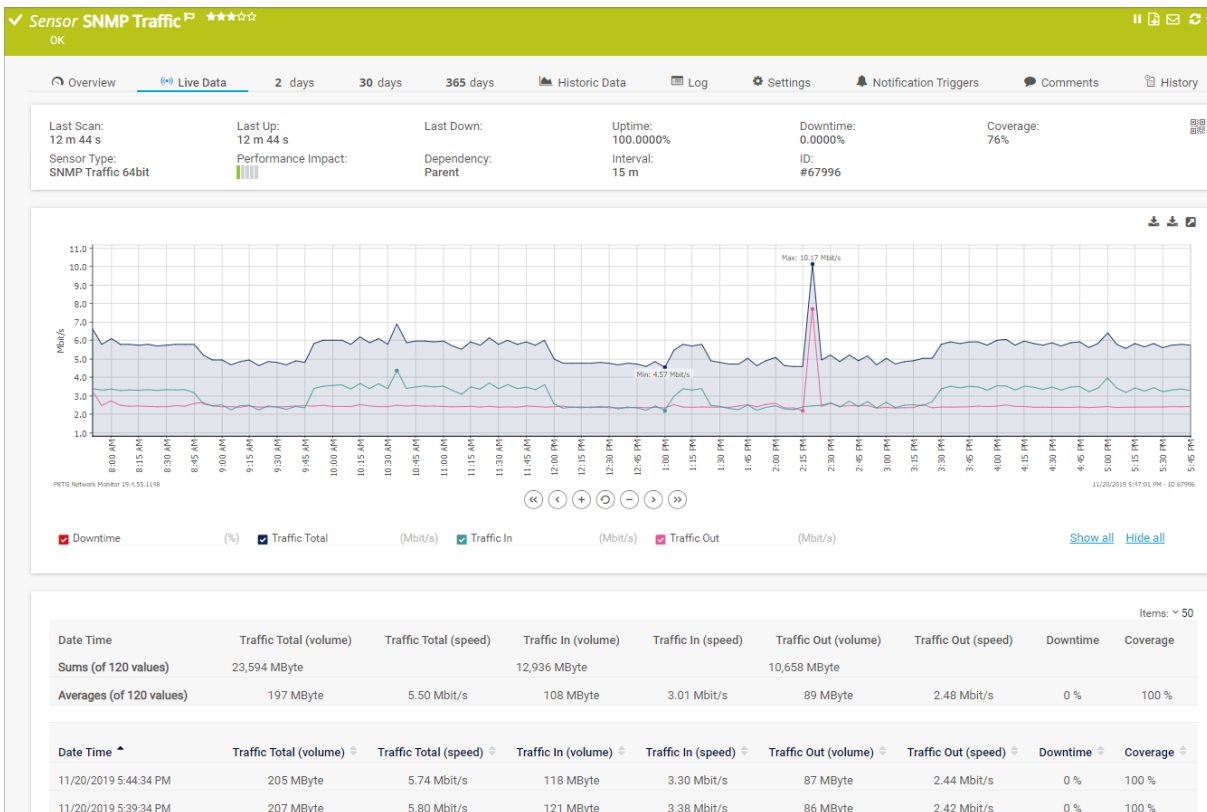
The three index graphs show trends in your network. If the values increase over a certain time span, this means that the CPU load, the bandwidth usage, or the response time have gotten worse during this time. For example, a [CPU Load Index](#) value of 90% means that the average CPU load for all CPU sensors of your configuration is at 90% of the highest ever measured CPU load value.

The following channels are available in the summary graph:

Channel	Description
Alarms	Sums up the number of all Down states of sensors on this object during the specified time span. This graph provides you with a bird's eye view of your network issues.
Response Time Index	Indicates the request times in your network.
CPU Load Index	Indicates the CPU load in your network.
Traffic Index	Indicates the bandwidth usage in your network.

■ For more details about index graphs, see the Knowledge Base: [How does PRTG compute CPU Index, Traffic Index and Response Time Index?](#)

You can individually hide single channels except the [Alarms](#) channel. To do this, disable the check box next to a channel name below the graph, and the corresponding channel's line disappears. You can also click Show all or Hide all in the lower-right corner to show or hide all channels. The graph view is immediately adjusted.



Sensor Live Data Tab for an SNMP Traffic Sensor

Live Data and Data By x Days for Sensors

For sensors, each tab shows a graph and data table for the selected sensor. When you view the data of a sensor that runs on a cluster probe, you can additionally select if you want to show the data of all cluster nodes, or only of one specific cluster node. Use the Show Data of option above the graph.

i PRTG never displays graphs for multiple cluster nodes as filled graphs. These graphs are only displayed with lines. However, historic data reports can have filled graphs for multiple cluster nodes.

When you view a sensor graph, you can individually hide channels. To do so, disable the check box in front of a channel name below the graph, and the according channel's line disappears. You can also click Show all or Hide all in the lower-right corner to show or hide all channels.








Live Data and Data By x Days and Interactive Graphs

Graphs on a sensor's historic data tabs, as well as zoomed graphs in new windows that belong to other monitoring objects are all interactive. You can zoom in and scroll along the time axis via the corresponding buttons.






Graph Buttons


The following actions are available for graphs:

-  scrolls one graph window left and  scrolls one graph window right. The scrolled time depends on the graph that you select, for example, 2 days on a 2-day graph.
-  scrolls left and  scrolls right on the time axis. The scrolled time depends on the graph that you select.
-  zooms in to and  zooms out of the graph. The displayed time depends on the selected graph. For example, you can zoom into a 30-day graph so that it shows data for 6 days.
-  resets the graph to the default view.

In the upper-right corner of each graph, you can find three icons   .

-  : Show a .png or .svg file of the graph in a new browser window. You can then save or copy the file for later use.
- : Open a larger version of the graph in a new browser window.

For each graph, you can also choose which specific channels (only for sensors) or indexes you want to see by enabling the respective check boxes or by clicking Show all or Hide all.

-  [Warning or error limits](#)³⁹⁷⁶ are only shown in graphs if you select exactly one channel with a limit. Warning limits are highlighted in yellow and error limits are highlighted in red.

Historic Data

The Historic Data tab is only available for sensors.

- For more information, see section [Historic Data Reports](#)²⁰⁸.

Alarms

The Alarms tab is not available for sensors. It is only available for probes, groups, and devices.

- For more information, see section [Alarms](#)²²⁸.

System Information

The System Information tab is only available for devices.

- For more information, see section [System Information](#)²³¹.

Log

The Logs tab shows past activities and events of a specific object.

- For more information, see section [Logs](#)²³⁷.

More

-  KNOWLEDGE BASE

How does PRTG compute CPU Index, Traffic Index and Response Time Index?

- <https://kb.paessler.com/en/topic/313>

Why do I get a warning message when time zones differ?

- <https://kb.paessler.com/en/topic/81306>

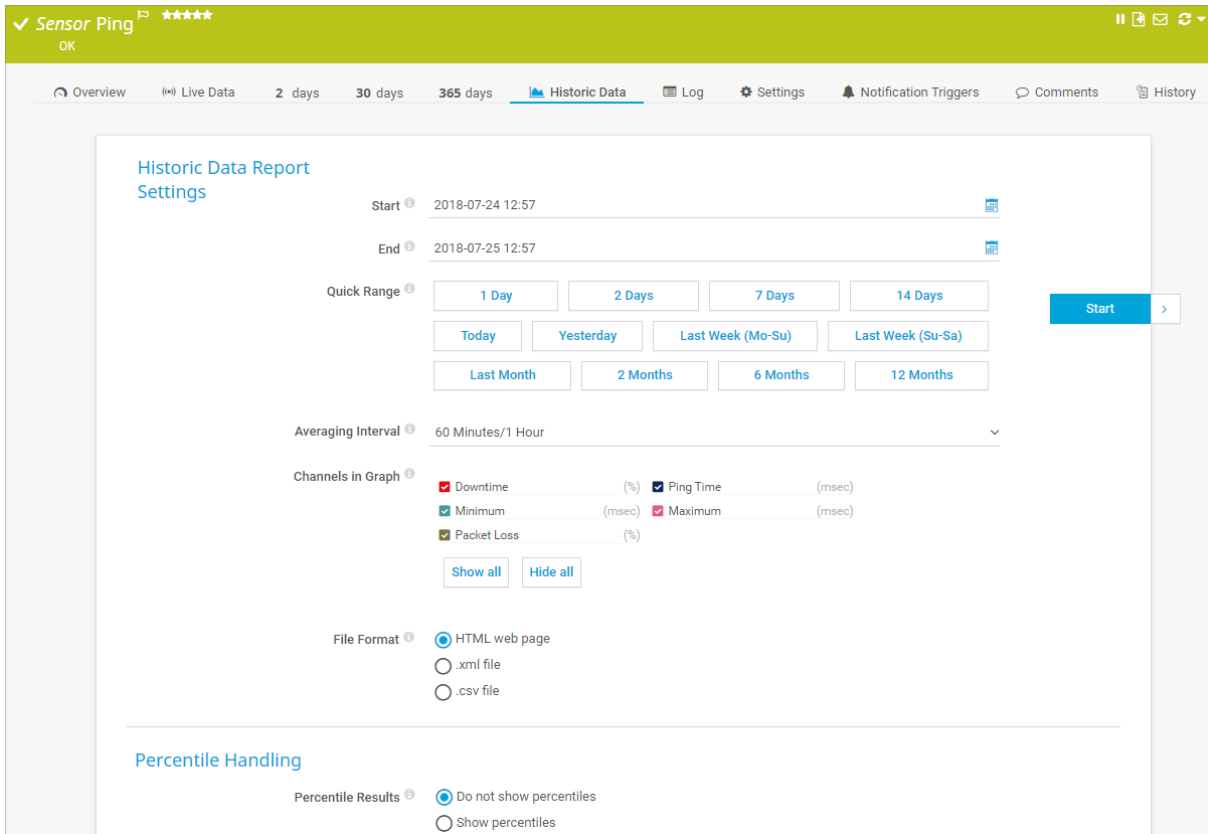
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6.7 Historic Data Reports

For quick reviews of a sensor's monitoring data, use historic data reports as an alternative to the comprehensive [reports](#) function. You can run and view a historic data report for each sensor on demand. Additionally, you can export a sensor's historic data as an .xml file or a .csv file to your computer to further process the data with third-party applications.

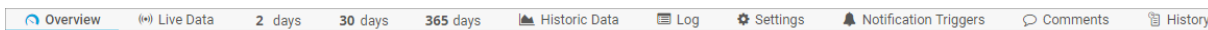
There are two ways to open historic data reports: Either click the Historic Data tab of a sensor or select Sensors | View Historic Data from the [main menu bar](#).



Historic Data Tab of a Ping Sensor

Historic Data (Sensor Tab)

Probe, group, device, and sensor pages have tabs that you can use to navigate between different options. For example, you can view your network's status, view monitoring results, or change settings.



Tabs Bar for Sensors

The Historic Data tab is only available for sensors, not for probes, groups, or devices. When you open the Historic Data tab of a sensor, no sensor selection is available. If you want to select a different sensor for the report, select Sensors | View Historic Data from the main menu bar.

Historic Monitoring Data (Sensors Main Menu)

When you open historic data reports via Sensors | View Historic Data from the main menu bar, PRTG asks you to select the sensor for which you want to create a report with the [object selector](#).

Historic Data Report Settings

Historic Data Report Settings

Start ⓘ 2018-07-24 12:57 📅

End ⓘ 2018-07-25 12:57 📅

Quick Range ⓘ

1 Day
2 Days
7 Days
14 Days

Today
Yesterday
Last Week (Mo-Su)
Last Week (Su-Sa)

Last Month
2 Months
6 Months
12 Months

Averaging Interval ⓘ 60 Minutes/1 Hour ▼

Channels in Graph ⓘ

Downtime (%)
 Ping Time (msec)

Minimum (msec)
 Maximum (msec)

Packet Loss (%)

Show all
Hide all




File Format ⓘ

HTML web page

.xml file

.csv file

Historic Data Report Settings

Setting	Description
Sensor	<p>This setting is only visible if you open the View Historic Data option from the main menu bar. To select the sensor for which you want to create the report, click  to open the object selector.</p> <p> For more information, see section Object Selector^[25].</p>
Start	<p>Specify the start date and time for the data that you want to review. Use the date time picker to enter the date and time.</p> <p> You cannot generate the historic data report if monitoring data was deleted^[4206] after the specified start date. Set the start of the report to a date for which data is available.</p>
End	<p>Specify the end date and time for the data that you want to review. Use the date time picker to enter the date and time.</p>
Quick Range	<p>You can use several buttons to select start and end dates more quickly. Click any of these buttons to change the Start and End values:</p> <ul style="list-style-type: none"> 1 Day, 2 Days, 7 Days, or 14 Days: Set the date range^[249] to the respective day or days. The current time of the current day is the end date.

Setting	Description
Averaging Interval	<ul style="list-style-type: none"> ▪ Today, Yesterday, Last Week (Mo-Su), Last Week (Su-Sa), Last Month, 2 Months, 6 Months, 12 Months: Set the date range to the last matching period. It starts at 00:00 and ends at 00:00 of the following day. <p>With this option, you can activate and configure averaging. Select an interval for which PRTG calculates the average value. You can choose from:</p> <ul style="list-style-type: none"> ▪ No Interval (Display Raw Data): PRTG performs no averaging and displays only raw data. ▪ 15 Seconds, 30 Seconds, or 60 Seconds/1 Minute ▪ 2 Minutes, 5 Minutes, 10 Minutes, 15 Minutes, 20 Minutes, or 60 Minutes/1 Hour ▪ 2 Hours, 4 Hours, 6 Hours, 12 Hours, or 24 Hours/1 Day <p>i A shorter interval results in a more detailed historic data report for the sensor.</p> <p>The best settings for you depend on the scanning interval of the sensor, the selected time period, and the intended use for the historic data report. Try different settings and compare the results. See also Automatic Averaging^[213] in this section.</p>
Channels in Graph	<p>This setting is only visible if you view historic data via the Historic Data tab of a sensor. Select the channels that you want to include in the graph of the historic data report. You can select individual channels via the respective check boxes, and show or hide all channels via the Show all or Hide all buttons. In the graph, PRTG then only shows the data of selected channels.</p> <p>i The historic data report table always shows the data of all channels.</p>
Cluster Node	<p>This setting is only visible if the sensor runs on a cluster probe. Select the cluster node's data that PRTG includes in the historic data report:</p> <ul style="list-style-type: none"> ▪ All nodes: Include the data of all cluster nodes in the report. ▪ [Several specific nodes]: Use a specific cluster node's data for the report. The cluster nodes you see are specific to your setup.
File Format	<p>Select the output format for the report:</p> <ul style="list-style-type: none"> ▪ HTML web page: Display the result directly as an HTML web page. This is also a good option if you want to check the results before you export them to a different file format. ▪ .xml file: Export the data as an .xml file. Your browser usually shows a download dialog when you use this option.

Setting	Description
	<ul style="list-style-type: none">▪ .csv file: Export the data as a .csv file, for example, to import it into Microsoft Excel. Your browser usually shows a download dialog when you use this option.

Percentile Handling

Percentile Handling

Percentile Results ⓘ Do not show percentiles
 Show percentiles

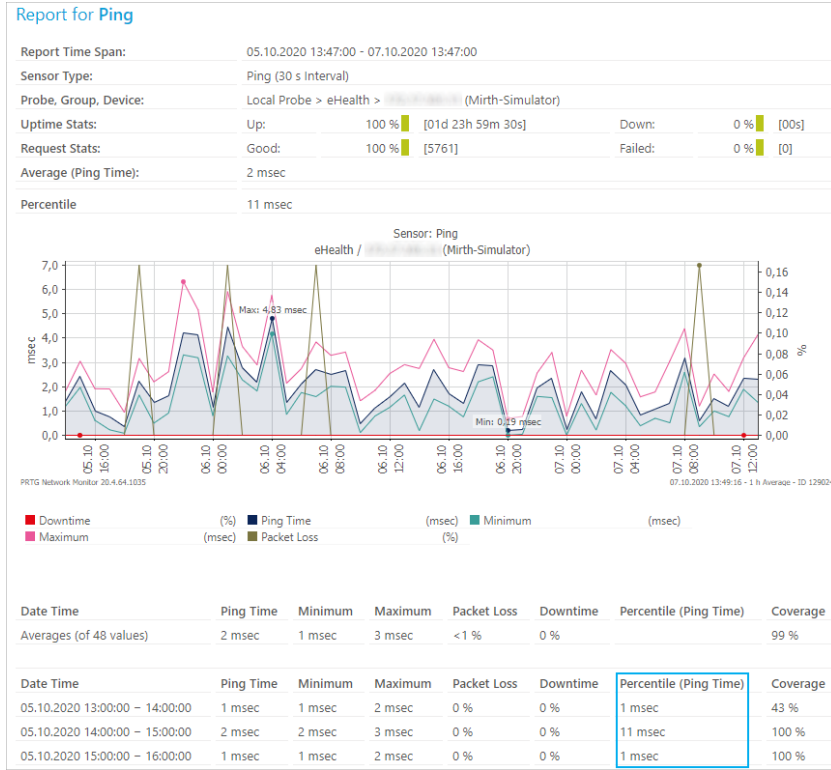
Historic Data Percentile Handling

Setting	Description
Percentile Results	<p>Define if you want to include an additional percentile calculation ⁴⁴⁹⁹ of your data in the historic report:</p> <ul style="list-style-type: none">▪ Do not show percentiles: PRTG does not use a percentile formula to calculate your monitoring results. It only shows the standard values.

Setting

Description

- **Show percentiles:** PRTG displays an additional percentile calculation for the **primary** channel in the value table for each scanning interval.



Example of a Historic Data Report with Percentile Calculation for the Primary Channel

Percentile Type

This setting is only visible if you enable Show percentiles above. Enter the percentile type that you want PRTG to use for the calculation. If you choose, for example, to calculate the 95th percentile, enter 95 here and 5% of peak values are discarded. Enter an integer value.

Percentile Averaging Interval

This setting is only visible if you enable Show percentiles above. Enter a value to define the averaging interval on which PRTG bases the percentile calculation. The default value is 300 seconds (5 minutes). This means that PRTG takes 5-minute averages as basic values for the percentile calculation. Enter an integer value.

Percentile Mode

This setting is only visible if you enable Show percentiles above. Select the mode for percentile calculation:

- **Discrete:** PRTG takes discrete values to calculate percentile results.
- **Continuous:** PRTG interpolates between discrete values and bases the calculation on interpolated values.

Click Start to generate a historic data report.

i You cannot generate the historic data report if monitoring data was [deleted](#)⁴²⁰⁸ after the specified start date. Set the start of the report to a date for which data is available.

Remarks for Reports

- Any sensor graph in your report only shows channels that you enable via the Show in graphs option in the [channel settings](#)³⁹⁷⁷.
- Reports show statistics for the uptime (the Up and Down [states](#)¹⁹⁷ in percent) and for requests (Good and Failed in percent). PRTG rounds values between 5% and 95%, as well as 100% and 0%, to whole numbers without decimal places. Other values are shown with 3 decimal places.
- Because PRTG rounds values, the statistics in the report section Sensor Status History can differ from the values in the report section Uptime Stats by a few seconds.
- PRTG limits data reporting to 5 requests per minute.
- Reports cannot show uptime or downtime data for the [Sensor Factory sensor](#)²¹⁷⁸.
- Create reports that include an appropriate amount of data. Reports might not work as expected if PRTG has to process too many sensors with short scanning intervals. Adjust your report size and the time span that the report covers, if necessary.

Automatic Averaging

For performance reasons, PRTG automatically averages monitoring data when it calculates data for large periods of time.

Period of Time in Report	Minimum Level of Detail (Averaging Interval)
Up to 40 days	Any
40 to 500 days	60 minutes/1 hour or longer

i Reports for periods that are longer than 500 days are not possible. If you enter a longer period, PRTG automatically shortens it to 365 days.

i In some cases, the generated report might contain a period of time that differs from the defined start and end date for the report because of internal averaging processes. When averaging intervals are longer than 1 hour and do not equal 24 hours, and when they are combined with specific periods of time, the resulting data points might be asynchronous to the periods of time. Consider this behavior particularly if you use [application programming interface \(API\) calls](#)⁴³⁸⁵ to generate reports.

More





















■ KNOWLEDGE BASE

Why is there missing data in historical data reports?

- <https://kb.paessler.com/en/topic/61382>

Basic Procedures

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6.8 Similar Sensors

With PRTG, you can detect relationships between different components in your network. For example, you can detect extraordinarily high CPU load that correlates with extraordinarily high traffic at a specific time of a day or week. This can give you a hint to further investigate that part of your network.

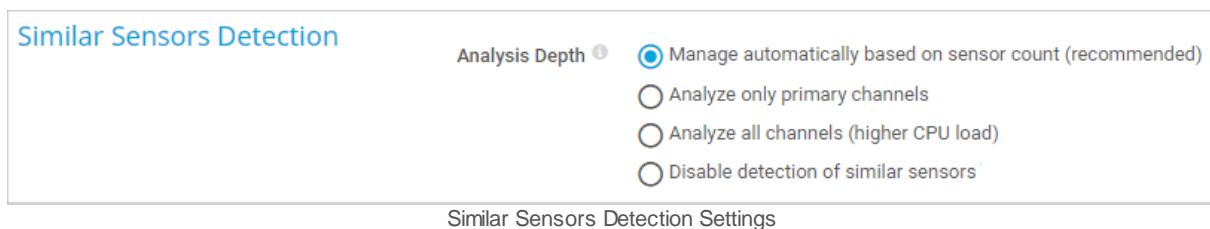
What Is Similarity?

The similarity calculation is based on the values that are saved in the sensor history. If measured values change in the same way, the [Similar Sensors Detection](#) feature detects it and shows you the sensors for which it found similar data relations. PRTG shows all sensors that reach 85% to 100% similarity.

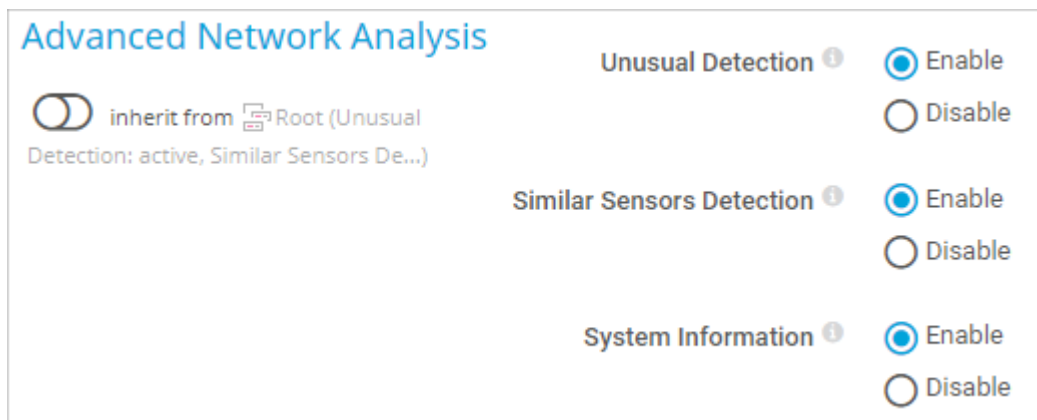
The analysis of similar sensors is a heuristic calculation that shows interconnections and correlations in your network. The analysis is completely automated. It is based on mathematics and fuzzy logic and optimizes your sensor usage by tracking redundant monitoring of some aspects of your system.

Similar Sensors Detection

You can adjust the depth of the Similar Sensors Detection or turn it off under Setup | System Administration | Monitoring.



You can also enable or disable the Similar Sensors Detection for specific probes, groups, and devices, and specify [inheritance](#)^[142] in the [object's settings](#)^[226], section Advanced Network Analysis.



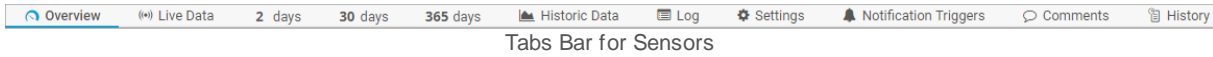
There are two options to view similar sensors:

- Via the Overview tab of sensors that includes a [Similar Sensors section](#)^[216] where PRTG lists channels that show similarities to channels of the selected sensor.
- Via Sensors | Similar Sensors Overview in the main menu bar where you get an [overview](#)^[217] of all similar sensors.

To edit the list of similar sensors results, use the [available filters](#) ²¹⁸.

Similar Sensors (Sensor Overview Tab)

Probe, group, device, and sensor pages have tabs that you can use to navigate between different options. For example, you can view your network's status, view monitoring results, or change settings.



On the Overview tab of a sensor, PRTG lists channels that show similarities to channels of the selected sensor. The table is empty if PRTG detects no similarities to the selected sensor.

- ❶ PRTG shows similar sensors here when channels have 85% similarity or more. The Similar Sensors Detection saves up to 15 entries per sensor.

Similar Sensors

Similarity	Channel	Similar Channel
100 %	(011) Local Area Connection Traffic (Traffic To)	(016) Local Area Connection-WFP LightWeight ...
99 %	(011) Local Area Connection Traffic (Traffic To)	(015) Local Area Connection-QoS Packet Sched.
85 %	(011) Local Area Connection Traffic (Traffic To)	Intel[R] PRO_1000 MT Network Connection (To

Similar Sensors Section on a Sensor's Overview Tab

The Similar Sensors section provides the following information.

Column Header	Description
Similarity	Shows the similarity between two channels in percent.
Channel	Shows a channel of the selected sensor.
Similar Channel	Shows a channel of a sensor that is similar to the channel of the selected sensor that you can see in the Channel column in the same row.

i PRTG does not show the Similar Sensors section when the analysis is disabled or when you exceeded 1,000 sensors and selected the Manage automatically based on sensor count (recommended) option as Analysis Depth under Setup | System Administration | Monitoring, section Similar Sensors Detection. In this case, you see the following notice:

The Similar Sensors Detection is a heuristic calculation that analyzes similar values in the sensor data of your entire PRTG installation. This way, PRTG can detect unexpected correlations between different components in your network and help optimize your sensor usage.

Why can't I see any sensor similarities here?

- The Similar Sensors Detection is currently turned off. To enable the analysis of similar sensors, open Setup | System Administration | Monitoring and set your preferred analysis depth in section **Similar Sensors Detection**.
- For more information about the Similar Sensors Detection in PRTG, see the PRTG Manual: Similar Sensors.

Similar Sensors Detection Notice

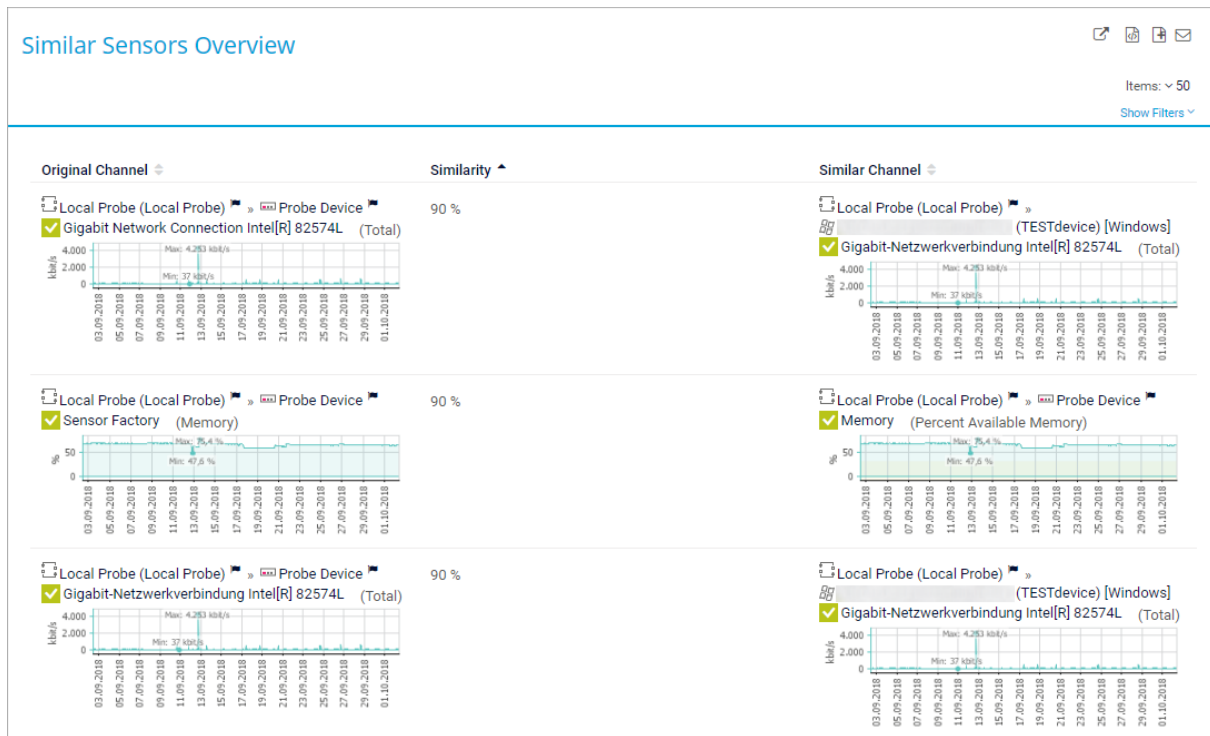
Similar Sensors Overview (Sensors Menu)

This page shows the results of the Similar Sensors Detection from the entire monitoring database. PRTG lists all channels with similarities here. Above the table, there are several filter options to display similar sensors as required. Select the object of interest, the degree of similarity, and display back references.

i For more information, see also section [Working with Table Lists](#) ²⁴⁶.

i The analysis of similar sensors requires sensor data from at least seven days to have enough data for comparison. If not enough data is available, no data is shown on the Similar Sensors Overview or in the Similar Sensors section on a sensor's Overview tab.

i PRTG shows similar sensors here when channels have at least 85% similarity. Furthermore, the analysis saves up to 15 entries per sensor.



Similar Sensors Overview

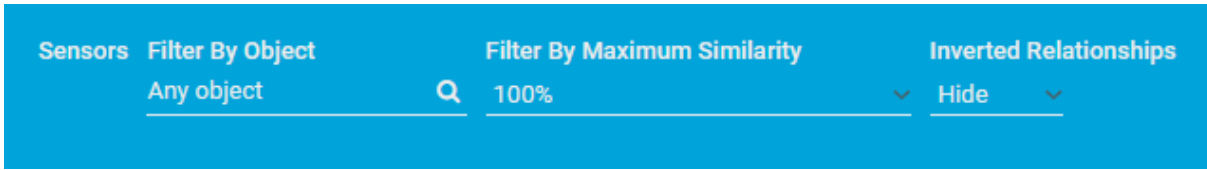
You can click the column headers to sort the list. The Similar Sensors Overview provides the following information.

Column Header	Description
Original Channel	Shows channels that other channels are compared to. Click the column header to sort the list according to the order in the device tree in ascending or descending order.
Similarity	Shows the similarity between two channels in percent. Click the column header to sort the list according to the similarities in ascending or descending order.
Similar Channel	Shows a channel that is similar compared to the original channel. Click the column header to sort the list according to the order in the device tree in ascending or descending order.

i PRTG does not show the Similar Sensors Overview item in the main menu bar if you disabled the analysis or if you exceeded 1,000 sensors and selected the Manage automatically based on sensor count (recommended) option as Analysis Depth under Setup | System Administration | Monitoring, section Similar Sensors Detection.

Adjust the Similar Sensors Overview to Your Needs

You can use various filters to adjust the results in the Similar Sensors Overview. Click Show Filters and edit the filters that appear.






Filters for the Similar Sensors Analysis

Filter	Description
Filter By Object	Select the device, probe, or group that you want the Similar Sensors Detection to cover. This way, you can apply the analysis to the parts of your network that you are interested in.
Filter By Maximum Similarity	Select a degree of similarity from 85% to 100%.
Inverted Relationships	<p>If you select Show, PRTG shows all similarity relationships, that is, A matches B and B matches A.</p> <p>If you select Hide, PRTG only shows A matches B relationships. This reduces the number of displayed similar sensors.</p>

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6.9 Recommended Sensors

With the [Recommended Sensors Detection](#) feature, PRTG can explore any device and check which sensors you have already created. If it finds useful sensors that you have not created yet, you see a list of recommended sensors for your device.

☁ You cannot use this feature on the hosted probe of a PRTG Hosted Monitor instance. You can use this feature on remote probes.

ⓘ The Recommended Sensors Detection does not apply to the [user group setting](#) ⁴²¹⁹ Allowed Sensors. Therefore, read/write users can also add all recommended sensors.

The screenshot shows the PRTG interface for a device named 'Device Internet'. At the top, there are navigation tabs: Overview (selected), 2 days, 30 days, 365 days, Alarms, System Information, Log, and Settings. A message box states: 'To see sensor gauges here, please change the priority of one or more sensors to ★★★★★ / ★★★★★.' Below this is a table of sensors:

Pos	Sensor	Status	Message	Graph	Priority	
1.	HTTP	Up	OK	Loading time 110 msec	★★★★☆	<input type="checkbox"/>

Below the sensor table is a 'Recommended Sensors' section with the following data:

Priority	Sensors	Total Sensors	Links
★★★★★	1xPing	1	Add These Sensors
★★★★☆	1xSSL Security Check (Port 4...	2	Add These Sensors

At the bottom left of the recommended sensors section is a 'Recommend Now' button.

Recommended Sensors on Device Overview Tab

Get Sensor Recommendations

By default, PRTG recommends sensors for any device that you add and shows the suggested sensors for the device on its Overview tab, as long as your installation includes less than 5,000 sensors in total. To add the recommended sensors, click Add These Sensors.

You can see the time that has passed since the last sensor recommendation in the [page header bar](#) ¹⁸⁶ on the Overview tab of a device.

If you want to manually start the Recommended Sensors Detection on any device, follow the steps below.

Step 1: Select the Device

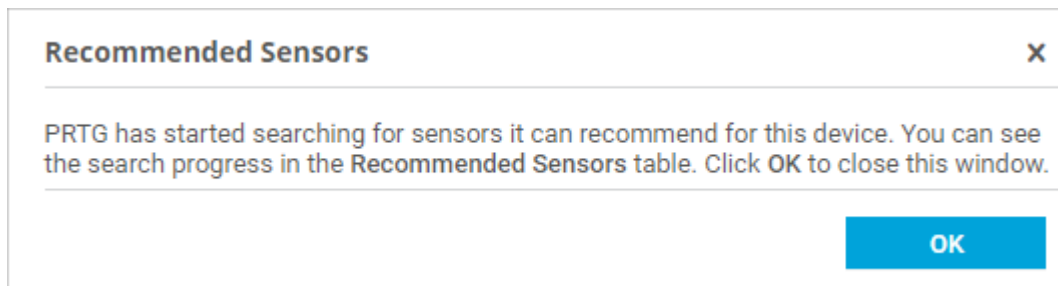
Open the Overview tab of the device that you want to analyze.

Step 2: Recommend Now

To start the analysis of your device, click Recommend Now or right-click the device and select Recommend Now from the [context menu](#)^[266].

i If you do not see the Recommend Now option, make sure that the Recommended Sensors Detection is enabled under Setup | System Administration | Monitoring. Probe devices do not support this option.

Depending on the complexity of your device, it can take some time until you see the results of the analysis.



Recommended Sensors Investigation

PRTG runs the Recommended Sensors Detection with low priority in the background to prevent potential performance issues. Because of this, the Recommended Sensors Detection can take more time than expected if PRTG needs resources to ensure the gapless monitoring of your network. By default, the Recommended Sensors Detection starts automatically when you add a new device, when you do not have more than 5,000 sensors, or when the last analysis was executed more than 30 days ago. You can change these settings under Setup | System Administration | Monitoring, section Recommended Sensors Detection.

i To recommend [Simple Network Management Protocol \(SNMP\) sensors](#)^[4615] for a device, the detection engine uses the SNMP version that you defined in the Credentials for SNMP Devices section of the [device settings](#)^[455].

Step 3: Get the Results

After PRTG analyzed your device, it suggests a list of sensors that are useful for a more comprehensive monitoring.

Priority	Sensors	Total Sensors	Links
★★★★★	1xPING	1	Add These Sensors
★★★★☆	1xSSL Security Check (Port 443), 1xSSL Certificate Sensor (Port ...	2	Add These Sensors

[Recommend Now](#)

What is this?
PRTG can inspect your devices to recommend useful sensors.

List of Recommended Sensors

The list of recommended sensors provides the following information.

Column Header	Description
Priority	Shows which priority [253] the suggested sensors have when you add them. The recommended sensors table is sorted by priority, beginning with the top priority (★★★★★) in the first row. ⓘ You can manually change the priority of a sensor after you add it.
Sensors	Shows the suggested sensors and the number of sensors of one type that PRTG recommends for this device. For example, you might want to add an SNMP Traffic sensor [3094] multiple times for several network interfaces.
Total Sensors	Shows the total number of suggested sensors per table row. These sensors have the same priority.
Links	Displays an Add These Sensors button for every table row. Click to automatically add the sensors in this table row to the device.

ⓘ The Recommended Sensors Detection checks if a certain sensor exists on your device and recommends that you add this sensor if it does not exist. If this sensor existed previously on the device, but you deleted it, PRTG suggests this sensor again. In this case, ignore the recommendation of this sensor or follow [step 4](#) [223].

Step 4: Add Recommended Sensors

Click Add These Sensors in a table row to add all sensors in this row to the analyzed device.

ⓘ If you want to add **all** suggested sensors regardless of their priority, click every Add These Sensors button in the Recommended Sensors table. If you want to add only **some** of the sensors of a certain priority, click Add These Sensors, then [delete](#) [270] or [pause](#) [256] the sensors you do not need afterward.

Settings for the Recommended Sensors Detection

You can also adjust the settings for the Recommended Sensors Detection or disable it under Setup | System Administration | Monitoring.

Recommended Sensors Detection

Detection Handling ⓘ Manage automatically based on sensor count (recommended)

Always show recommended sensors

Disable sensor recommendation

Recommended Sensors Detection Settings

If you use the Manage automatically based on sensor count (recommended) setting, PRTG uses an intelligent assistant to count the number of sensors you have and decides whether to start the detection of recommended sensors or not. The detection does not start if your PRTG installation includes 5,000 sensors or more to prevent performance issues. We recommend that you use this option so that you do not miss any important monitoring data about your network and so that you do not risk performance issues.

- ⓘ Disable the Recommended Sensors Detection if you encounter performance issues or if you do not want to display this information on device Overview tabs.






Auto-discovery

You can also use the auto-discovery to find suitable sensors. You can start the auto-discovery when you [add a new device](#)^[343], you can [manually start](#)^[297] it at any time, or you can choose if you want PRTG to [analyze a whole section](#)^[296] of your network, for example, devices that are covered by a certain IP address range.

- ⓘ The auto-discovery has a higher priority than the detection of recommended sensors. If both are active, PRTG queues the sensor recommendation and executes the auto-discovery first.

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6.10 Object Settings

Probe, group, device, and sensor pages have tabs that you can use to navigate between different options. For example, you can view your network's status, view monitoring results, or change settings.



Tabs Bar for Sensors

General Settings

On the Settings tab, you can define all settings for the selected object. The available options vary depending on the kind of object that you select. See the following sections for information about the object types:

- [Root Group Settings](#) ³⁶⁶
- [Probe Settings](#) ³⁸⁵
- [Group Settings](#) ⁴¹³
- [Device Settings](#) ⁴⁴⁶
- [Sensor Settings](#) ⁴⁷⁶

i You cannot open [channel settings](#) ³⁹⁷ via tabs. Go to a sensor's Overview tab to edit the channel settings.

Notification Triggers Settings

On the Notification Triggers tab, you can set notification triggers for every object. If you use these settings for a probe, group, or device, they are inherited to all sensors on these objects. The available notification trigger options are the same for all objects.


■ For more information, see section [Notification Triggers Settings](#) ³⁹⁸.

Comments

On the Comments tab, you can enter free text for each object. You can use this function for documentation purposes or to leave information for other users.

History

On the History tab, all changes in the settings of an object are logged with a time stamp, the name of the user who made the change, and a message. The history log retains the last 100 entries.

i On some pages, you can click  in the [page header bar](#) ¹⁸⁶ to access the history of subordinate objects. This includes [system administration](#) ⁴¹⁷ settings and [account settings](#) ⁴¹², [reports](#) ⁴⁰⁶, [libraries](#) ⁴⁰⁴, and [maps](#) ⁴⁰⁵. For more information, see section [Logs](#) ²³⁷.

Basic Procedures

- [Login](#) ¹⁶⁴
- [SSL Certificate Warning](#) ¹⁶⁹

- [Welcome Page](#) ^[174]
- [General Layout](#) ^[183]
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6.11 Alarms

The alarms list shows all sensors that are in the Down, Down (Partial), Down (Acknowledged), Warning, or Unusual status. Sensors in the Up, Paused, or Unknown states do not appear here.

i By default, [table lists](#)^[246] that show alarms are sorted by [priority](#)^[253]. Click a column header to sort the list items by a different category.

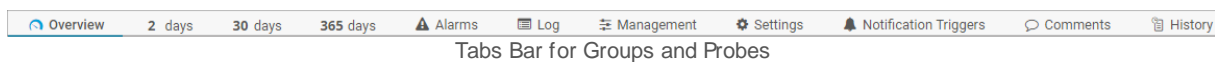
Sensor	Probe Group Device	Status	Down for	Last Value	Message	Graph	Priority
!! PING		Down	14 d		Host not found. This message in...	Ping Time No data	★★★★★
!! PING		Down	14 d		Host not found. This message in...	Ping Time No data	★★★★★
!! PING		Down	16 h 49 m		Request timed out (ICMP error #...	Ping Time No data	★★★★★
!! PING		Down	14 d		Host not found. This message in...	Ping Time No data	★★★★★
!! PING		Down	20 d		Host not found. This message in...	Ping Time No data	★★★★★
!! PING		Down	14 d		Host not found. This message in...	Ping Time No data	★★★★★
!! PING		Down	8 d 19 h		Host not found. This message in...	Ping Time No data	★★★★★

Alarms List

There are two ways to display the alarms list. Either click the Alarms tab of a probe, group, or device, or click Alarms in the [main menu bar](#)^[278].

Alarms (Object Tab)

Probe, group, device, and sensor pages have tabs that you can use to navigate between the different options. For example, you can view your network's status, view monitoring results, or change settings.



Click the Alarms tab of a probe, group, or device to show a table list of all sensors [on the selected object](#) that show the Down, Down (Partial), Down (Acknowledged), Warning, or Unusual [status](#)^[197]. This list is a subset of the entries that are available via the Alarms | All option in the main menu bar.

i The Alarms tab is not available for sensors.

Alarms (Main Menu Bar)

Click Alarms in the main menu bar to show a table list of **all** sensors in your installation that show the Down, Down (Partial), Down (Acknowledged), Warning, or Unusual status. You can also show these sensors as gauges or only show a subset of sensors in specific states. Hover over Alarms to show further options:

Option	Description
All	Open a list of all sensors that are in the Down, Down (Partial), Down (Acknowledged), Warning, or Unusual status.
Show as Gauges	Open a page with the gauges of all sensors that are in the Down, Down (Partial), Down (Acknowledged), Warning, or Unusual status. The size of the gauges corresponds to the sensor's priority.
Errors Only	Open a list of all sensors that are in the Down, Down (Partial), or Down (Acknowledged) status.
Warnings Only	Open a list of all sensors that are in the Warning status.
Unusuals Only	Open a list of all sensors that are in the Unusual status.

Acknowledge Alarm


An acknowledged alarm shows the Down (Acknowledged) status. It does not [trigger](#)³⁹⁸⁷ any more [notifications](#)⁴⁰³¹.

i If the alarm condition clears, the sensor usually returns to the Up status with the next sensor scan.

To acknowledge an alarm, right-click a sensor that shows the Down status. From the [context menu](#)²⁵⁹¹, select Acknowledge Alarm, then select a time span, optionally enter a message, and click OK. The message appears in the last message value of the sensor.

The time spans that you can select are: Acknowledge Indefinitely, acknowledge For 5 Minutes, For 15 Minutes, For 1 Hour, For 3 Hours, For 1 Day, or Until. If you select Until, provide the following information:

Field	Description
Selected Objects	Shows the sensors for which you want to acknowledge the alarm. You can acknowledge alarms for more than one sensor using multi-edit ⁴⁰¹⁴ .
Message	Enter a text, for example, the reason why you acknowledge the alarm. Enter a string or leave the field empty.
Until	<p>Select the date when the Down (Acknowledged) status ends. Use the date time picker to enter the date and time.</p> <p>i If the alarm condition still exists after the specified date, the sensor shows the Down status again.</p> <p>i To return the sensor to the Down status before the specified date, you can Pause and then Resume the sensor via the context menu²⁷⁰¹.</p>

 By default, only read/write [users](#) ^[421] or administrators may acknowledge alarms. However, you can give read-only users the right to acknowledge alarms, too. See the system administration settings, section [User Accounts](#) ^[412].

More

KNOWLEDGE BASE

Which audible notifications are available in the PRTG web interface and in PRTG Desktop?

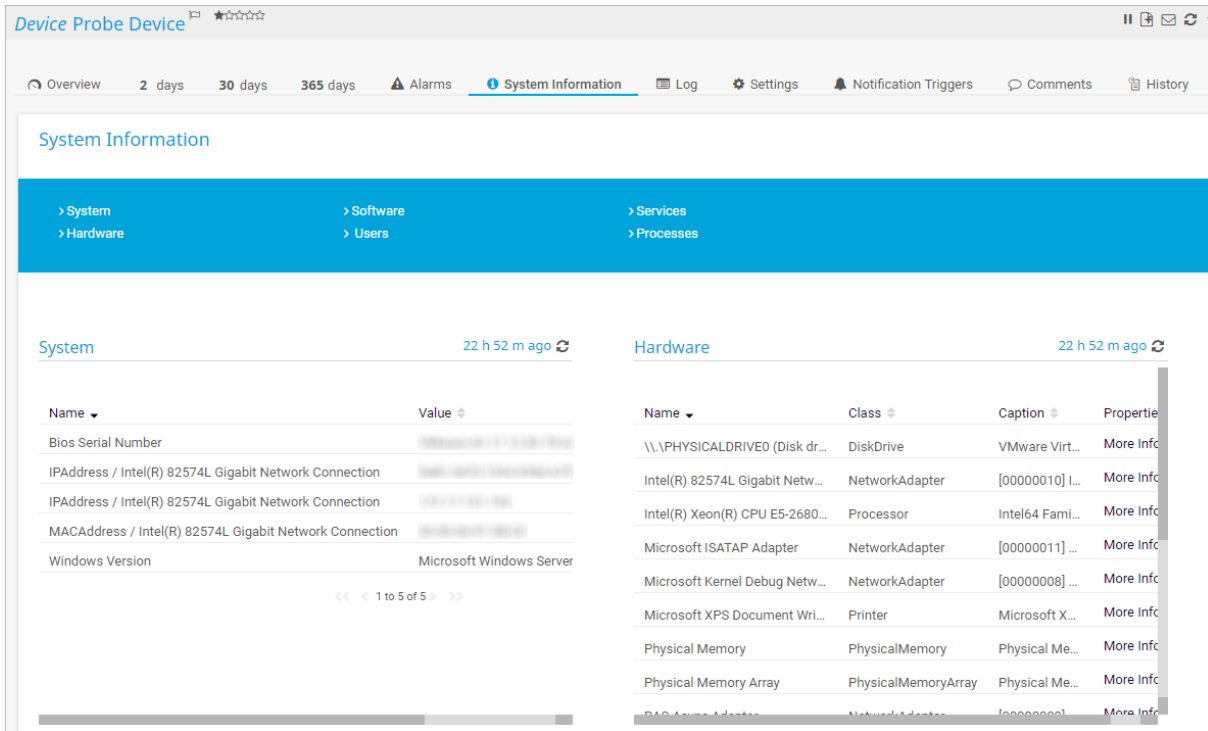
- <https://kb.paessler.com/en/topic/26303>

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6.12 System Information

With the [System Information](#) feature, you can see what is going on in the systems that you have in your network. To see the system information for a device, click the device's System Information tab.



System Information Tab on a Windows Device

The system information shows

- basic system data of your device like the BIOS serial number or MAC and IP addresses,
- all connected hardware types and their properties,
- the software you have installed, including version and vendor information,
- the users that are connected to your system and their domains,
- a list of all active or stopped Windows system services including their properties, and
- a list of all processes that are running on your system, including their ID and start time.

System information is available for all devices that run with an [officially supported Windows operating system](#). You can also retrieve system information from devices that run with Linux or Unix, and from all other devices that have the Simple Network Management Protocol (SNMP) enabled.

You cannot use this feature on the hosted probe of a PRTG Hosted Monitor instance. You can use this feature on remote probes.

Prerequisites

You already meet the main prerequisites for retrieving system information if you already monitor a device with sensors that use Windows Management Instrumentation (WMI) or the Simple Network Management Protocol (SNMP). PRTG automatically displays the data on the respective device's System Information tab. To retrieve all available system information, enable **both** WMI and SNMP on the device.

i The System Information feature is enabled by default. To retrieve the data, PRTG automatically uses the [credentials for Windows systems](#)^[452] and the [credentials for SNMP devices](#)^[455] that you entered in the device settings or that the device [inherits](#)^[138] from a parent object like the root group. Consider this when you monitor devices that are outside of your local network, especially when you use [SNMP v1](#) or [SNMP v2c](#), which do not provide encryption.

Meet the following prerequisites if you do not yet use WMI or SNMP sensors:

Option	Description
Valid credentials	Specify valid credentials for Windows systems and for SNMP devices in the device settings ^[446] .
Remote Registry Windows service	Enable the Remote Registry service on the target computer, for example, via services.msc , and set the Startup Type to Automatic.
Remote Procedure Call (RPC) Windows service	Enable the RPC Windows service on the target computer, for example, via services.msc , and set the Startup Type to Automatic.
WMI	<p>Enable WMI on both the probe system and the target system. In particular, configure the firewall of the target system to allow WMI.</p> <ul style="list-style-type: none"> For more information, see section Monitoring via WMI^[428] and the Knowledge Base: My WMI sensors don't work. What can I do?
SNMP	<p>Enable SNMP on the target system. PRTG automatically uses the SNMP Compatibility Options as defined in the device settings^[446] or as inherited from a parent object like the root group.</p> <ul style="list-style-type: none"> For more information, see section Monitoring via SNMP^[428] and the Knowledge Base: My SNMP sensors don't work. What can I do?

i It is not necessary to meet every single prerequisite but then some tables do not show all data or they can even remain empty. For example, if you do not enable SNMP on the target device, you get less information for the System table.

The first data usually comes in after a few minutes. If PRTG cannot retrieve some data, for example, because of a misconfiguration, the respective System Information table shows an error message.

■ For more information, see the Knowledge Base: [How can PRTG get data for System Information tables?](#)

i System information for your devices is only for informational purposes. We cannot guarantee that the data displayed in PRTG fully corresponds to the device parameters.

Software
31 S Ago

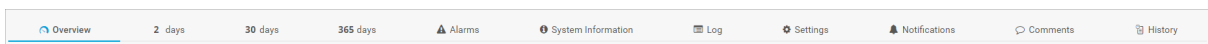
No Data Available

- *Error: The sensor could not connect to the Remote Registry Windows service of the target system. To resolve this issue, make sure that the service is running. Also make sure that you entered correct Credentials for Windows Systems in the device settings. For more information, see <https://kb.paessler.com/en/topic/67824>. (code: PE255)*
- *Error: SNMP No Response*

Error Messages: No Data Available

System Information (Device Tab)

Probe, group, device, and sensor pages have tabs that you can use to navigate between the different options. For example, you can view your network's status, view monitoring results, or change settings.



Tabs Bar for Devices

Select a device and click the System Information tab.

i The System Information feature is enabled by default. If you do not see the System Information tab, you need to enable System Information in the device settings under Advanced Network Analysis. You can also inherit the setting from an object that is higher in the [object hierarchy](#) [138].

Advanced Network Analysis

inherit from Root (Unusual Detection: active, Similar Sensors De...)

Unusual Detection **i** Enable Disable

Similar Sensors Detection **i** Enable Disable

System Information **i** Enable Disable


Advanced Network Analysis

Analyze Your Systems

On the System Information tab, PRTG displays a table for each system information category for the device.

Category	System Information	Request Method (WMI or SNMP)
System	Shows system data of the device like the BIOS serial number, IP addresses, MAC addresses, and the Windows version.	WMI and SNMP
Hardware	Shows hardware that is connected to the device like disk drives, CD/DVD, video controllers, processors, network adapters, sound devices, printers, and memory. You can see the Class and the Caption of a hardware device. In the Properties column, you get more information about the hardware, for example, the description.	WMI and SNMP
Software	Shows the installed software and the Version number of the device. In the Properties column, you get more information about the software, for example, the size. <i>i</i> PRTG uses Uninstall registry keys to retrieve the list of installed software, so the displayed software might differ from the software that the target Windows system shows under Programs and Features . <i>i</i> The System Information scan for software on the probe device uses the credentials of the probe system and ignores credentials that you specified on the Settings tab.	WMI and SNMP
Users	Shows the user accounts that are connected to the device and their Domain.	WMI
Services	Shows the available Windows services on the device. You can see the State of the service (running, stopped) and the start type (Startup Type automatic, manual, or disabled). In the Properties column, you can get more information about a service, for example, the description.	WMI
Processes	Shows the processes that are running on the device as listed on the Processes tab of the Windows Task Manager. You can also see the Start Time (only WMI) and Process ID of a process.	WMI and SNMP


You can sort each [table list](#) ²⁴⁶ via the column headers.

Click  in the upper-right corner of a table to retrieve new information for this System Information category. The time stamp shows the time that has passed since the last table refresh.

31 S Ago 

Table Refresh

PRTG automatically retrieves data for the tables System, Hardware, and Software once every 24 hours. The tables Users, Services, and Processes refresh each time you open the System Information tab. PRTG also updates all system information tables when the PRTG core server is restarted, for example, after an update.

-  PRTG can perform up to 24 system information scans at the same time, so it can take some time until you see data in the tables after a server restart.

Data Storage

PRTG stores data files with the retrieved system information in the corresponding \System Information Database subfolders of the [PRTG data directory](#) .

-  If you delete a device, the system information files of this device remain in these subfolders unless you manually delete them.

PRTG uses the following subfolders for System Information data.

Subfolder	Description
hardware	Data for the Hardware table
loggedonusers	Data for the Users table
processes	Data for the Processes table
services	Data for the Services table
software	Data for the Software table
system	Data for the System table

More

KNOWLEDGE BASE

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

How can PRTG get data for System Information tables?

- <https://kb.paessler.com/en/topic/67824>

My HTTP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/85284>

Why do I get DoS alarms on my QNAP?

- <https://kb.paessler.com/en/topic/80421>

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6.13 Logs

Logs show all past activities and events in your monitoring setup. With the logs, you can, for example, review past user activities, system events, or check whether messages were sent. In a typical setup, a huge amount of log data is produced. Because PRTG records the activity of every single object, you can use this information to check if your setup works as required.

You can choose from several filters to navigate the log entries.

For more information, see section [Working with Table Lists](#) ^[246].

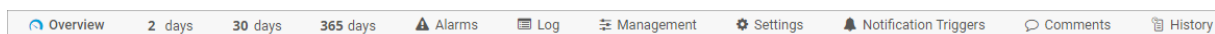
Log Entries					
Date Time	Parent	Type	Object	Status	Message
8/8/2017 9:22:32 AM	None	Web Server Options		Edited	See history for details.
8/8/2017 9:11:02 AM	Sharepoint 01	PerfCounter IIS Application P...	App Pool .NET v4.5 Classic	Up	Running
8/8/2017 9:11:02 AM	Sharepoint 01	PerfCounter IIS Application P...	App Pool .NET v4.5 Classic	Warning	Range check error
8/8/2017 9:04:02 AM	WINDOWS	Device	DomainController	Edited	See history for details.
8/8/2017 9:01:06 AM	None	Group	Root	Notification Info	Report Email "[PRTG Network ...
8/8/2017 8:57:50 AM	Probe Device	Business Process	Business Process 1	Edited	See history for details.
8/8/2017 8:55:59 AM	None	PRTG (Administrator)	PRTG System Administrator	Edited	See history for details.
8/8/2017 8:52:45 AM	ServerSimulation	WMI Vital System Data (V2)	Server: Bytes Received/sec	Down	Range check error
8/8/2017 8:48:52 AM	None	PRTG (Administrator)	PRTG System Administrator	Edited	See history for details.
8/8/2017 8:37:45 AM	ServerSimulation	WMI Vital System Data (V2)	Server: Bytes Received/sec	Warning	Range check error

List with Log Entries

There are two ways to open the logs list. Either click the Log tab of a probe, group, device, or sensor, or click Logs in the [main menu bar](#) ^[287].

Log (Object Tab)

Probe, group, device, and sensor pages have tabs that you can use to navigate between the different options. For example, you can view your network's status, view monitoring results, or change settings.





Tabs Bar for Groups and Probes

Click the Log tab to show a table list with all log information for the selected object. This is a more detailed log than the system log that is available via the Logs | All option in the main menu bar.

Logs (Main Menu Bar)

Click Logs in the main menu bar to show a table list of all system log entries in your installation. Hover over Logs for further options:

Option	Description
All	Open a list with log information about all objects in your installation. The list begins with the most recent log entry.

Option	Description
Status Changes	<p>Open a list with log information about specific status changes. Hover over Status Changes to show the following sensor states:</p> <ul style="list-style-type: none"> ▪ Up & Down ▪ Down ▪ Warning ▪ Unusual ▪ Up ▪ Paused/Resumed ▪ Acknowledged Alarms
System Events	<p>Open a list with log information about specific system event types. Hover over System Events to show the following event types:</p> <ul style="list-style-type: none"> ▪ Probe Related ▪ Cluster Related ▪ Auto-Discovery Related ▪ Notifications Related ▪ Status Message Related
Object History	<p>Open a list with log information about changes to the PRTG setup and deletions of subordinate system objects. The Object History has several tabs. To view the changes to all related settings and deletions of objects, use the following tabs:</p> <ul style="list-style-type: none"> ▪ My Account ▪ System Administration ▪ Notification Templates ▪ Schedules ▪ User Accounts ▪ User Groups ▪ Reports ▪ Libraries ▪ Maps <p> You can also navigate to a corresponding page, for example, you can select Setup | Account Settings | My Account from the main menu bar, and click  in the page header bar¹⁸⁶ to directly go to the related object history tab.</p>






















More

KNOWLEDGE BASE

The logs page in the PRTG web interface does not load. What can I do?

- <https://kb.paessler.com/en/topic/77329>

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6.14 Tickets

PRTG has its own ticket system. A ticket includes information about recent events in your PRTG installation that need a closer look. Each ticket is a task for a particular user or user group.

Last modified	Priority	Ticket ID	Subject	Assigned to	Status	Object	
6/28/2017 8:52:32 AM	★★★★★	#5	Web server is slowing down...	PRTG Administrators	○	System	<input type="checkbox"/>
6/24/2017 1:18:54 PM	★★★★☆	#4	We recommend Windows 2...	PRTG Administrators	○	System	<input type="checkbox"/>
6/23/2017 1:18:41 PM	★★★☆☆	#3	We recommend Windows 2...	PRTG Administrators	○	System	<input type="checkbox"/>
6/19/2017 1:16:22 PM	★★☆☆☆	#1	Welcome to PRTG!	PRTG Administrators	○	Root	<input type="checkbox"/>

List of Tickets

Each task has a life cycle in the ticket system. The task's life cycle starts when a ticket is created. The users who are responsible then take care of this issue. Once the issue has been resolved, the ticket can be closed and the life cycle of the task ends. PRTG automatically creates tickets, for example, when the [auto-discovery](#) has finished, and you can create tickets for every kind of issue as well. In addition, you can set up [notifications](#) that open a ticket when an issue occurs.

Every ticket has a unique ID, a priority, and a status. You can open, resolve, or close a ticket.

PRTG can also [send an email](#) to you whenever a ticket is assigned to you or if one of your tickets has been changed.

i Except for administrator groups, you can disable the ticket system for particular user groups under Setup | System Administration | User Groups. You can also [disable ticket emails](#) for every user account.

Ticket Types




There are three types of tickets:

Type	Description
User Tickets	User tickets are created by users, for example, to assign monitoring-related tasks to a particular user account or user group .
ToDo Tickets	ToDo tickets are created by PRTG to show important system information and to inform you about specific system events. ToDo tickets are assigned to the predefined PRTG Administrators group. You cannot change the user group to which PRTG assigns ToDo tickets and you cannot disable ToDo tickets.

Type	Description
	<p>i Users that belong to an administrator group do not receive new ToDo tickets and notifications about changes by default, only the predefined PRTG System Administrator user does. You cannot change this behavior.</p> <p>See the following examples for cases in which PRTG creates a ToDo ticket:</p> <ul style="list-style-type: none"> ▪ The auto-discovery created new devices or sensors. <ul style="list-style-type: none"> i In the ticket, PRTG only lists the device templates that it used to create the sensors. ▪ A new probe has connected to the PRTG core server and you must acknowledge it. ▪ A new cluster node has connected to the cluster and you must acknowledge it. ▪ A new version of the software is available. ▪ A new report is ready for review. ▪ In a few other situations, for example, the system is running out of disk space, there are license issues, or an error occurs. <p>i The related object of ToDo tickets is System.</p>
Notification Tickets	Notification tickets are created via notifications that you set in the notification template settings .

Ticket States

Tickets can have three different states:

Sym	State	Description
	Open	New tickets are open as long as the issue that is described in the ticket exists.
	Resolved	The issue that is described in the ticket does not persist any longer because a user resolved it.
	Closed	A user resolved the ticket, the solution to the issue was reviewed for correctness, and the ticket does not require any other action.


Tickets (Main Menu)

i This option is only available in the main menu bar if the user group to which the logged in user belongs is allowed to use the ticket system. You can disable a user group's access to the ticket system in the user group settings under Setup | System Administration | User Groups. **Read-only** users never have access to the ticket system and cannot see the Tickets option in the main menu bar.


You have several options to display a list of tickets that is filtered to your needs. In the main menu bar, click Tickets to show all open tickets that are assigned to you. Hover over Tickets to show other available filter options:

Option	Description
My Tickets	Click to show all open tickets that are assigned to you. Hover over My Tickets to show other options to filter these tickets according to their status: Open, Resolved, Closed, or All.
All Tickets	Click to show all open tickets of all users. Hover over All Tickets to show other options to filter these tickets according to their status: Open, Resolved, Closed, or All.
ToDo Tickets	Click to show all open tickets of the ToDo type ^[240] . Hover over ToDo Tickets to show other options to filter these tickets according to their status: Open, Resolved, Closed, or All. Click Open to show all open ToDo tickets. Hover over Open to show other options to filter these tickets according to their event type: All, Report Related, Auto-Discovery Related, Probe Related, Cluster Related, System Errors, or New Software Version.






Add a User Ticket

From the main menu bar, select Tickets | Add Ticket, or hover over  and click Add Ticket. This opens the Add Ticket dialog.

Step 1: Select the object to which the new ticket is related via the [object selector](#)^[251]. Click OK.

 You can skip step 1 if you use an object's [context menu](#)^[259] in the device tree to open the ticket.

Step 2: Provide the following information and click OK to create a user ticket:

- Subject: Enter a meaningful subject for the ticket that indicates the topic of the issue.
- Assigned to: From the dropdown list, select a user or a user group that is responsible for this issue.
- Priority: Define a [priority](#)^[253] from the lowest priority (    ).
- Comments: Enter a message. This message should describe the issue in detail.

After you open a new user ticket, a corresponding list of tickets appears. In this [table list](#)^[246], you can sort the items by clicking the column headers. Additionally, several search options are available in the filter directly above the table:

Option	Description
Status	all, open, resolved, closed

Option	Description
Type	Tickets, User Tickets, ToDo Tickets, Notification Tickets
Assigned To	Show only tickets that are assigned to a specific user or user group: <ul style="list-style-type: none"> anyone: Apply no user filter and show all tickets. me: Show tickets that are assigned to you (the user who is logged in). Groups: Show tickets that are assigned to a specific user group. The displayed user groups are specific to your setup. Users: Show tickets that are assigned to a specific user. The displayed users are specific to your setup. Disallowed: Display users or user groups that do not have access rights to the selected object. This is for your information only. You cannot select disallowed users or user groups.
Related To	Specify the relationship to a monitoring object. Select groups, probes, devices, or sensors with the object selector. <p>i ToDo tickets are related to System.</p>
Changed Between	Define a time span to view tickets that changed during this time. Use the date time picker to enter the date and time.

Click the subject of a ticket to open the ticket. There you can find all related information and take several actions.

ToDo Ticket #986 ★★☆☆☆ ✉

[Software update is available](#)

Status: open Assigned to: PRTG Administrators Related Object: System Type: ToDo (New Software Version) ID: #986 ✎ Edit 👤 Assign ✓ Resolve 🔒 Close

Last Update

Opened by PRTG System Administrator + Assigned to PRTG Administrators 04.12.2018 11:36:34

[04.12.2018 11:36:34] Version 18.4.48.1279 has been downloaded and will be installed at: 8h 00m

An Open ToDo Ticket with Instructions

Actions

The following actions are available for a specific ticket:

Action	Description
Edit (✎)	Open a dialog where you can change the subject and the priority of the ticket, as well as assign the ticket to a different user. You can optionally add a message to this ticket. Click OK to apply your changes.
Assign (👤)	Open a dialog where you can give the ticket to a different user or user group. Select a user or a user group via the dropdown list. You can optionally add a message to this ticket. Click OK to apply your changes.
Resolve (✔)	Open a dialog where you can resolve the ticket. The status resolved indicates that the issue that is described in this ticket does not persist anymore. You can optionally add a message to this ticket that indicates, for example, what was done to resolve the issue. Click OK to apply your changes.
Close (🔒)	Open a dialog where you can close the ticket after the issue was resolved and reviewed. You can optionally add a message to this ticket. Click OK to apply your changes.
Reopen (🔄)	Open a dialog where you can reopen a ticket after it was resolved or closed. Do so, for example, if the solution to the issue was not correct. You can optionally add a message to this ticket that indicates, for example, why you have opened the ticket again. Click OK to apply your changes.

❗ Only user group members that have the respective [access rights](#) ^[155] can view and edit tickets that are related to a certain monitoring object.

Tickets as Emails


















You can receive all tickets that are assigned to you or to your user group as emails. PRTG also notifies you via email each time a ticket that is assigned to you or to your user group is edited. This way, you are always informed about new notifications (if you enabled this setting), important system information (if you are an administrator), or the communication between other users.

You can disable the setting Email Notifications in the user account settings under Setup | System Administration | User Accounts. If you select Do not receive any emails from the ticket system for a specific user account, this particular user does not receive ticket emails anymore.

❗ If you defined to receive tickets as emails and you are the predefined **PRTG System Administrator** user, you receive emails for ToDo tickets as well, although ToDo tickets are usually opened by the **PRTG System Administrator** user.

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6.15 Working with Table Lists

In the PRTG web interface, you often see table lists, for example, sensor or device lists. Table lists are also available in [libraries](#)^[4047], [maps](#)^[4095], [reports](#)^[4068], [notifications](#)^[4031], and [schedules](#)^[4169], as well as in [logs](#)^[237] and [tickets](#)^[240]. All of these table lists are similar in layout and functionality.

Sensor	Probe Group Device	Status	Last Value	Message	Graph	Priority	Fav.	Perf. Impact	
✓ Ping		Up	0 msec	OK	Ping Time 0 msec	★★★★★	🔖	🟢	<input type="checkbox"/>
✓ Ping		Up	0 msec	OK	Ping Time 0 msec	★★★★★	🔖	🟢	<input type="checkbox"/>
✓ Ping		Up	1 msec	OK	Ping Time 1 msec	★★★★☆	🔖	🟢	<input type="checkbox"/>
✓ Ping		Up	0 msec	OK	Ping Zeit 0 msec	★★★★☆	🔖	🟢	<input type="checkbox"/>
✓ Ping		Up	4 msec	OK	Ping Time 4 msec	★★★★☆	🔖	🟢	<input type="checkbox"/>
✓ Ping		Up	1 msec	OK	Ping Time 1 msec	★★★★☆	🔖	🟢	<input type="checkbox"/>

Example of a Table List



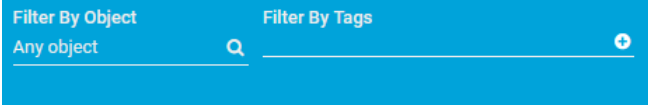
Table List Options

See the following table for ways to work with table lists:

Feature	Display	Description
Paging	⏪ ⏩ ⏴ ⏵	The content of a table list is displayed on several pages. Click the respective paging button at the end of a list to view other pages or to go to the beginning or the end of the list.
New Window	🔖	Click the respective button to open the table list in a new window.

Feature	Display	Description
Date Range		<p>Use the date and time picker to show table list entries within a specific time period. Click the first field to select a start date and the second field to select an end date. Click Done to apply the selected date and time.</p>
Select Range		<p>When you view log lists, click Select Range in the upper-left corner of the table list to select the time period for which you want to show log entries. Choose from Today, Yesterday, and several other time periods. Select Unlimited to disable this filter again.</p>
Items		<p>Click Items in the upper-right corner of a table list to select how many rows are shown on each page. You can choose between 50, 100, 500, and 1000.</p>

■ For more information, see [Date Ranges](#) ²⁴⁹.

Feature	Display	Description
Sorting		<p>Click a column header to sort the list items by the respective category. You can click all column headers that include arrow icons to sort the list, for example, by Status, Last Value, Priority, and more. The sorting options vary depending on the content of the table list.</p>
Show XML		<p>Click the respective button to download the selected page in XML format. Your browser usually shows a download dialog.</p>
Filtering		<p>You can filter table lists via the Show Filters option directly above a list. The filter options vary depending on the content of the table list.</p> <p>Use the filter options, for example, to show specific objects in the list. Click Any object in the Filter By Object section to select an object from the device tree with the object selector^[25].</p>

Feature	Display	Description
		<p>Enter one or more tags^[145] into the field Filter By Tags to filter the list for corresponding objects. You can use the plus sign (+) and the minus sign (-) to categorize tags as must have this tag or does not need this tag.</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Date Ranges

Range	Description	Example (Based on 14.01.2019)
Today	Start: 00:00 of today End: 00:00 of tomorrow	2019-01-14 (00:00) - 2019-01-15 (00:00)
Yesterday	Start: 00:00 of yesterday End: 00:00 of today	2019-01-13 (00:00) - 2019-01-14 (00:00)
7 days	Start: 00:00 of 7 days ago End: 00:00 of tomorrow	2019-01-07 (00:00) - 2019-01-15 (00:00)
30 days	Start: 00:00 of the same day last month End: 00:00 of tomorrow	2018-12-14 (00:00) - 2019-01-15 (00:00)
6 months	Start: 00:00 of the same day 6 months ago End: 00:00 of tomorrow	2018-07-14 (00:00) - 2019-01-15 (00:00)

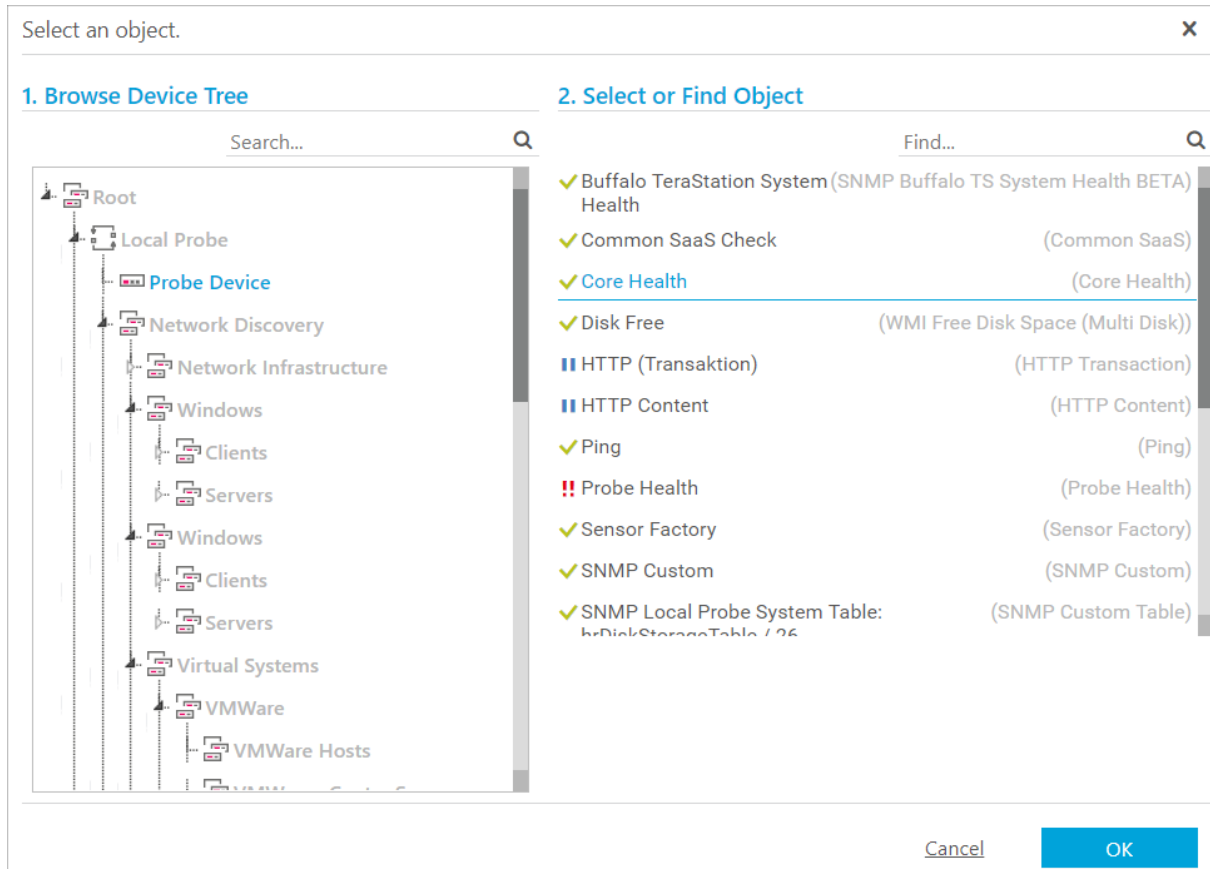
Range	Description	Example (Based on 14.01.2019)
12 months	Start: 00:00 of the same day 12 months ago End: 00:00 of tomorrow	2018-01-14 (00:00) - 2019-01-15 (00:00)
Unlimited	Start: 00:00 of the same day 7 years ago (historic data ^[208] for logs is limited to 750 days) End: 00:00 of tomorrow	2012-01-14 (00:00) - 2019-01-15 (00:00)

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6.16 Object Selector

For some features, you need to select an object, for example, when you want to create historic data reports. In this case, PRTG uses the object selector with which you can browse all objects in your installation to select an object in two steps.



Object Selector

Step 1: Browse Device Tree

On the left-hand side, you see your specific device tree setup with all probes, groups, and devices. Click **▲** to collapse an object. Click **▶** to expand the object again and show its subobjects.

Click a device to view its sensors on the right-hand side.

You can also directly search for an object in the device tree. To do so, enter a probe name, group name, or device name into the Search box on the left-hand side. You can also use a substring for the search.

Step 2: Select or Find Object

Select a device on the left-hand side to see the sensors on this device on the right-hand side. PRTG displays the name of the sensor as well as the sensor type. Hover over a sensor to view its parent objects.

You can also directly search for a sensor in the sensor list. To do so, enter the sensor name, group name, device name, or tag into the Find box on the right-hand side.

Select a sensor and click OK.

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6.17 Priority and Favorites

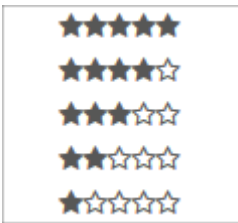
You can set priorities for all your monitoring objects and also mark devices or sensors as favorites. Both settings affect how PRTG displays your objects.

- ❶ PRTG stores priority and favorites settings for the entire installation. The settings are not user specific.

Priority for All Objects

The priority setting affects the order by which PRTG lists your objects in [table lists](#)^[246]. PRTG lists objects with a higher priority first. Furthermore, a device displays [gauges](#)^[201] for sensors with a high priority on its Overview tab.

To change the priority settings, right-click an object to open its [context menu](#)^[259] and select Priority/Favorite. You can choose from the top priority with 5 stars (★★★★★) to the lowest priority with one star (★☆☆☆☆). By default, PRTG sets all objects to the medium priority with 3 stars (★★★☆☆). In the [page header bar](#)^[186] and in table lists, you can directly set a priority via the star icons.



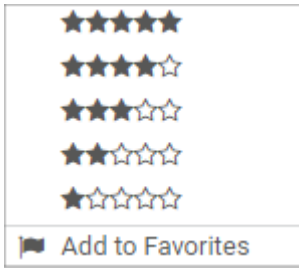
Context Menu: Priority

- ❶ For a sensor, select a priority of 4 or 5 stars to display its the gauge of its primary channel on the Overview tab of its parent device.
- ❶ For a map, select a priority of 5 stars to display it as a menu item under Home in the [main menu bar](#)^[278].

Favorites for Devices and Sensors

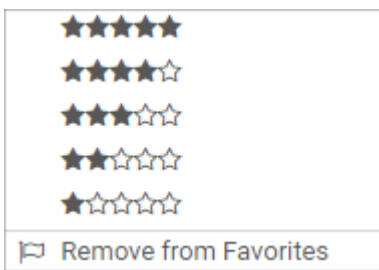
To open a list of all your favorite devices or sensors, select Devices | Favorite Devices or Sensors | Favorite Sensors from the main menu bar. These lists are sorted by priority as well.

You can mark any device or sensor as a favorite to add it to the favorites list. Right-click an object to open its context menu. Select Priority/Favorite | Add to Favorites. PRTG adds a dark gray flag icon (🚩) next to the object's name in the device tree to mark the object as a favorite.



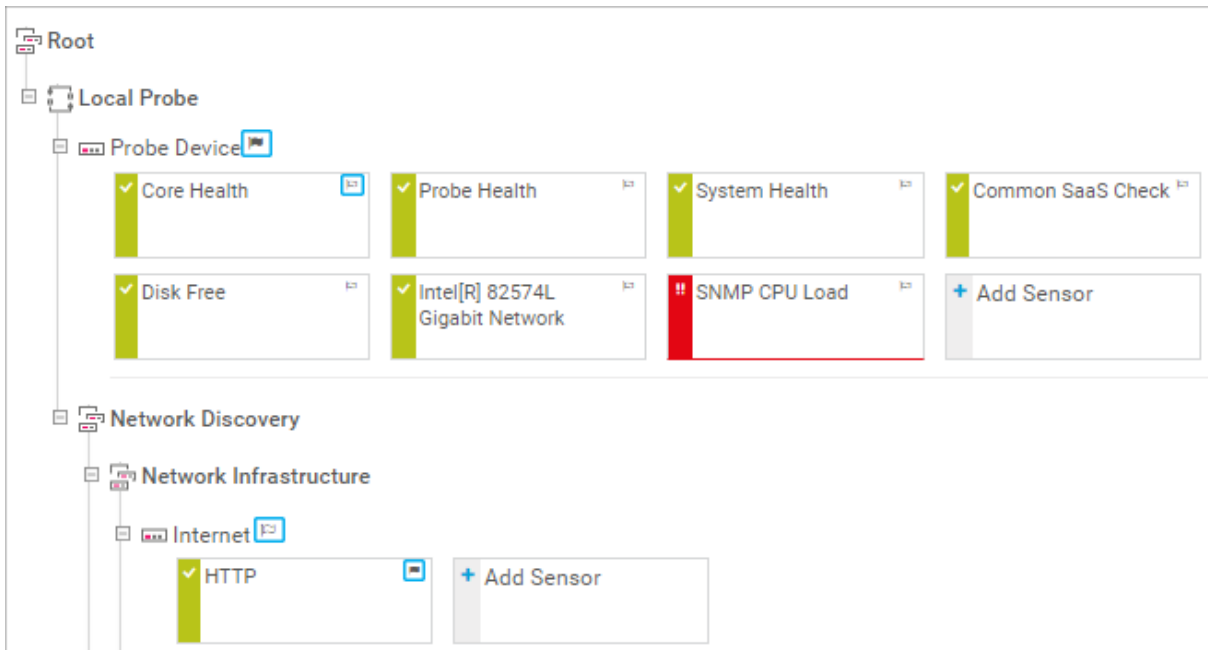
Context Menu:
Priority/Favorites (Add)

To remove an object from the favorites list, select Priority/Favorite | Remove from Favorites from the context menu. The flag icon turns transparent ().







Context Menu: Priority/Favorites
(Remove)

There is also the option to add a device or sensor to your favorites with one click in the device tree. Click the flag icon to the right of the respective object name. To make an object a favorite, click . The flag turns dark gray. To remove an object from your favorites, click . The flag turns transparent.





One-Click Adding to Favorites in the Device Tree

Priority and Favorites in the Page Header Bar

You can also add any device or sensor to your favorites on the respective object's Overview tab. To do so, click  in the page header bar of a device or  in the page header bar of a sensor. Click  for a device or  for a sensor to remove the respective object from your favorites.



One-Click Favorite and Priority in the Page Header Bar

It is also possible to set the priority of an object via the five stars in the page header bar.  means top priority,  means lowest priority.

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6.18 Pause


Several options are available to pause monitoring. You can pause monitoring for a single sensor or for an entire device, group, or probe.

Pause by Intention (Manually or by Schedule)

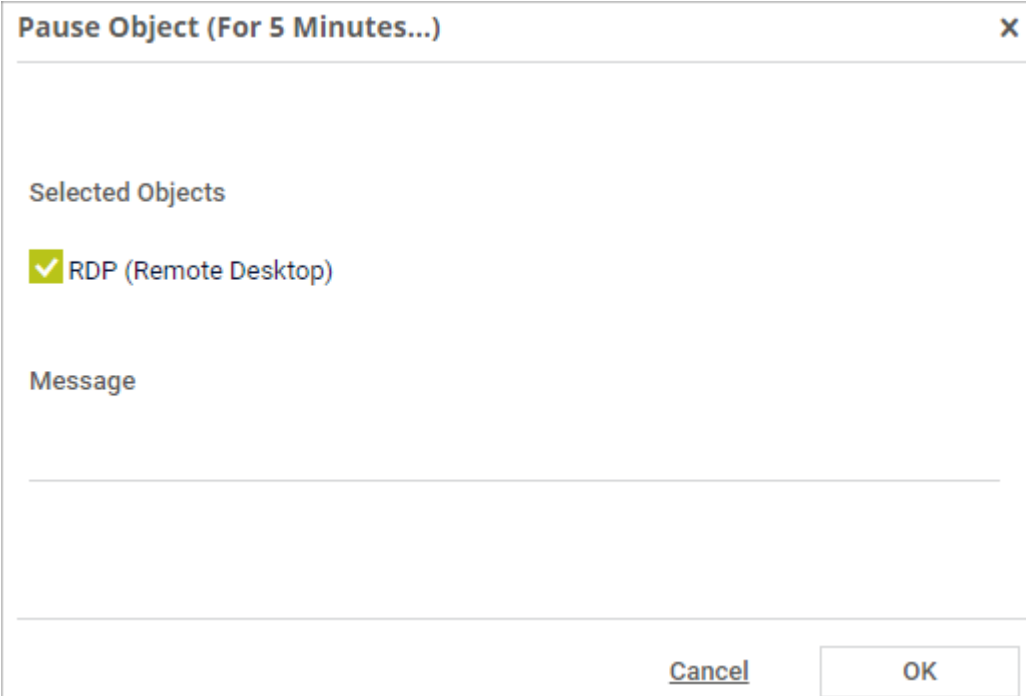
Navigate to an object in the [device tree](#)^[183] and select Pause from the [context menu](#)^[259].

You can select Pause Indefinitely, or you can pause the object For 5 Minutes, For 15 Minutes, For 1 Hour, For 3 Hours, For 1 Day, or Until a specific date. If you select Until, you can additionally define a time period. Use the date time picker to enter the date and time. The object automatically resumes monitoring after this time period.

You can also set up a One-time Maintenance Window to automatically pause an object at a specified time. In the dialog that appears, define the start and end date of the maintenance window. Use the date time picker to enter the date and time.

- ❶ To cancel an active maintenance window before the defined end date, change the time entry under Maintenance Ends to a date in the past.
- ❷ If you select  from an object's [hover popup](#)^[275], the object is paused indefinitely until you resume monitoring again.

When you select a pause option, a dialog appears in which you can optionally enter a message. PRTG shows the message in the object's status message as long as the object is in the Paused status. Confirm with OK to pause the object.



Pause Object (For 5 Minutes...) X

Selected Objects

RDP (Remote Desktop)

Message

Cancel OK

Pause Message Prompt

You can also pause monitoring via [schedules](#)^[4169]. If you pause a master sensor by schedule or manually, you do not trigger a status change by [dependency](#)^[257].

■ For more information, see the Knowledge Base: [Why will dependent objects not go into paused status automatically when I pause the master object?](#)

i While a sensor is in the Paused [status](#)^[197], it does not collect any monitoring data, it does not change its status, and it does not trigger any [notifications](#)^[152]. An object also keeps the Paused status after a restart of PRTG.

Pause by Hierarchy

If you pause monitoring for an object in the device tree, PRTG pauses all objects underneath in the [object hierarchy](#)^[138] as well. For example, if you pause a group, PRTG also pauses all sensors on all devices in this group. After you pause an object, you can resume monitoring at any time by selecting Resume from the context menu.

i You cannot resume monitoring for single child objects that are paused by a parent object. You can only resume the object that you originally set to the Paused status.

Pause by Dependency

There is a way to automatically pause objects by dependency. If you have a master sensor, for example, a master [Ping sensor](#)^[2010] for a device, PRTG can automatically pause all dependent sensors on the device if the master sensor shows the Down status.

■ For more information, see section [Dependencies](#)^[148].

More

■ KNOWLEDGE BASE

Why will dependent objects not go into paused status automatically when I pause the master object?

- <https://kb.paessler.com/en/topic/76351>

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6.19 Context Menus

Right-click an object to view a context menu with many options for direct access to monitoring data and functions.

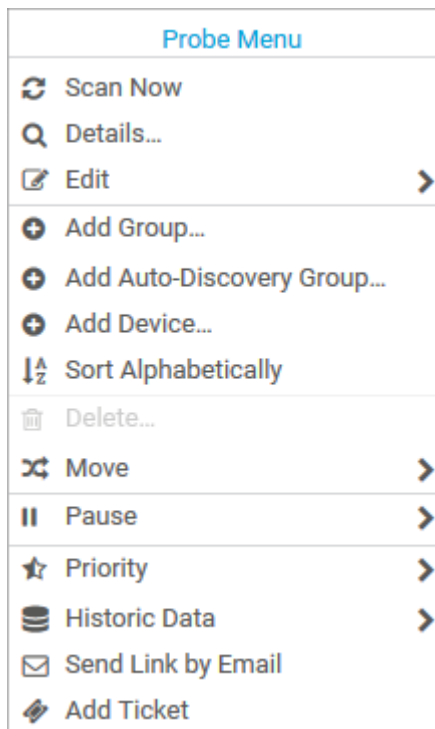
i To view your browser's context menu, press the **Ctrl** key (Chrome) or the **Shift** key (Firefox) while right-clicking. You then see the context menu of your browser instead of the context menu of PRTG. This is not possible with Internet Explorer.

The content of the context menu varies depending on the type of object. See the following subsections for an overview of the available options.

- [Probe Menu](#) ²⁵⁹
- [Group Menu](#) ²⁶²
- [Device Menu](#) ²⁶⁶
- [Sensor Menu](#) ²⁷⁰

Probe Menu


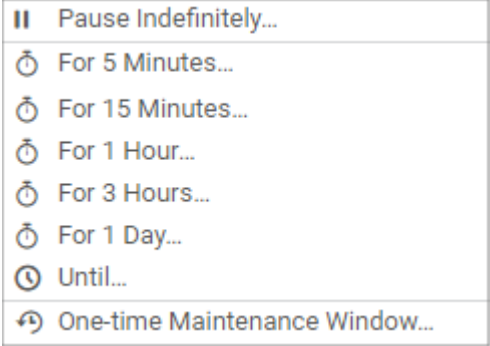
The Probe Menu contains actions for your [local probe, hosted probe, cluster probe, or remote probe](#) ¹³⁹.

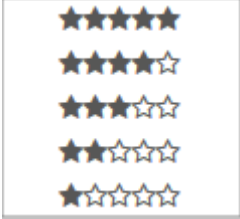
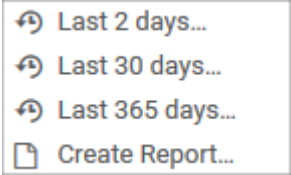


Probe Context Menu

Action	Description
Scan Now	Perform an immediate scan of the object. This queries data for all objects underneath in the object hierarchy ¹³⁸ .

Action	Description
Details	Show the Overview tab ^[201] of the object.
Edit	<p>Hover over Edit to show the Edit menu. The following actions are available:</p> <div> </div> <p style="text-align: center;">Edit Context Menu</p> <ul style="list-style-type: none"> ▪ Settings: Open a dialog to edit the probe settings^[385]. ▪ Notification Triggers: Open the Notification Triggers^[4031] tab of the object. ▪ Access Rights: Open a dialog to edit user access rights^[155] for the object. ▪ Rename: Open a dialog to edit the name of the object. ▪ Management: Open the Management^[364] tab of the object.
Add Group	<p>Open a dialog that guides you through the process of adding a new group.</p> <p>■ For more information, see section Add a Group^[323].</p>
Add Auto-Discovery Group	<p>Open a dialog that guides you through the process of adding a new auto-discovery group. PRTG creates a new group and runs an auto-discovery in your network to automatically add devices and sensors.</p> <p>■ For more information, see section Add an Auto-Discovery Group^[300].</p> <p>☁ This option is not available on the hosted probe of a PRTG Hosted Monitor instance.</p>
Add Device	<p>Open a dialog that guides you through the process of adding a new device.</p> <p>■ For more information, see section Add a Device^[340].</p>
Sort Alphabetically	<p>Sort direct child objects in alphabetical order.</p> <p>ⓘ PRTG stores the sorting order in the monitoring configuration. You cannot undo it.</p>
Delete	<p>Delete the object. PRTG asks for confirmation before it actually deletes an object.</p> <p>ⓘ You cannot delete local probes or hosted probes.</p>

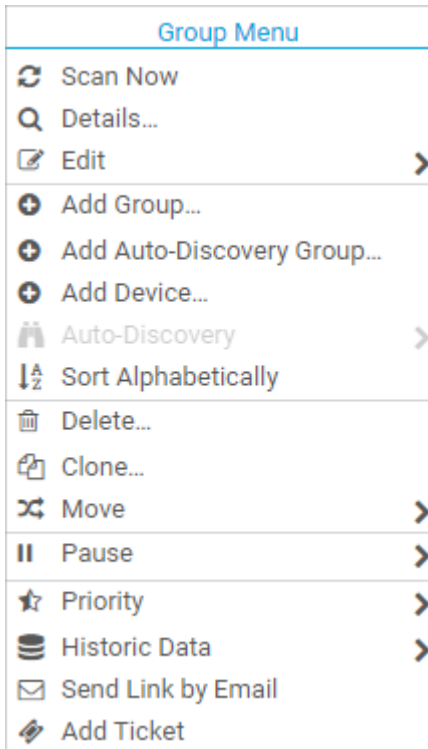
Action	Description
Move	<p>Hover over Move to open the Move menu. The following actions are available:</p>  <p style="text-align: center;">Move Context Menu</p> <ul style="list-style-type: none"> ▪ Top: Move the object to the top of the parent object. ▪ Up: Move the object one entry up. ▪ Down: Move the object one entry down. ▪ Bottom: Move the object to the bottom of the parent object. ▪ Management: Open the Management^[364] tab of the object.
Pause or Resume	<p>Hover over Pause to open the Pause menu. The following actions are available:</p>  <p style="text-align: center;">Pause Context Menu</p> <ul style="list-style-type: none"> ▪ Pause monitoring for the object and for all objects underneath in the object hierarchy. You can select Pause Indefinitely, or you can pause the object For 5 Minutes, For 15 Minutes, For 1 Hour, For 3 Hours, For 1 Day, or Until a specific time. If you select Until, you can additionally define a time period. Use the date time picker to enter the date and time. The object automatically resumes monitoring after this time period. ▪ You can also set up a One-time Maintenance Window to automatically pause the object at a specified time. In the dialog that appears, define the start and end date of the maintenance window. Use the date time picker to enter the date and time. <ul style="list-style-type: none"> ① To cancel an active maintenance window before the defined end date, change the time entry under Maintenance Ends to a date in the past.

Action	Description
	<ul style="list-style-type: none"> If the object already shows the Paused status^[197] or if it shows the Down status because of a simulated error, the Resume option appears. Click Resume to restart monitoring on the object.
Priority	<p>Hover over Priority to open the Priority menu. Define the priority of the object.</p>  <p>Priority Context Menu</p> <ul style="list-style-type: none"> For more information, see section Priority and Favorites^[253].
Historic Data	<p>Hover over Historic Data to open the Historic Data menu. The following actions are available:</p>  <p>Historic Data Context Menu</p> <ul style="list-style-type: none"> Open the historic data tabs^[203] for the specified time interval: Last 2 days, Last 30 days, or Last 365 days. Create Report: Open a dialog to add a new report. <ul style="list-style-type: none"> When you create a report via the context menu, PRTG automatically includes the selected probe in the report. For more information, see section Reports Step by Step^[4075].
Send Link by Email	<p>Send a link to the object by email. Click to create a new email with your system's standard email client. The email contains a direct link to the Overview tab of the object.</p>
Add Ticket	<p>Open the Add Ticket dialog.</p> <ul style="list-style-type: none"> For more information, see section Tickets^[242].

Group Menu

The Group Menu contains actions for your [groups](#)^[139].


i The context menu of the root group differs from the other groups' menu.



Group Context Menu

Action	Description
Scan Now	Perform an immediate scan of the object. This queries data for all objects underneath in the object hierarchy ^[138] .
Details	Show the Overview tab ^[201] of the object.
Edit	Hover over Edit to show the Edit menu. The following actions are available: <ul style="list-style-type: none"> ▪ Settings: Open a dialog to edit group settings^[413] for the group. ▪ Notification Triggers: Open the Notification Triggers^[403] tab of the object. ▪ Access Rights: Open a dialog to edit user access rights^[155] for the object. ▪ Rename: Open a dialog to edit the name of the object. ▪ Management: Open the Management^[364] tab of the object.
Add Group	Open a dialog that guides you through the process of adding a new group. <ul style="list-style-type: none"> ■ For more information, see section Add a Group^[323].



















Action	Description
Add Auto-Discovery Group	<p>Open a dialog that guides you through the process of adding a new auto-discovery group. PRTG creates a new group and runs an auto-discovery in your network to automatically add devices and sensors.</p> <ul style="list-style-type: none"> ■ For more information, see section Add an Auto-Discovery Group^[300]. ☁ This option is not available on the hosted probe of a PRTG Hosted Monitor instance.
Add Device	<p>Open a dialog that guides you through the process of adding a new device.</p> <ul style="list-style-type: none"> ■ For more information, see section Add a Device^[340].
Auto-Discovery	<p>This option is only available for auto-discovery groups or devices that have the auto-discovery feature enabled^[414]. Hover over Auto-Discovery to show the Auto-Discovery menu. The following actions are available:</p> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;"> <p><input type="radio"/> Run Auto-Discovery</p> <p><input type="radio"/> Run Auto-Discovery with Template</p> <p style="text-align: center; font-size: small;">Auto-Discovery Context Menu</p> </div> <ul style="list-style-type: none"> ■ Run Auto-Discovery: Immediately start a search to automatically add new devices and sensors to the group. The search runs in the background and uses the options you set for the Auto Discovery Level^[414] in the group settings under Device Identification and Auto-Discovery. If there are new devices and sensors, you see them after a few minutes. <ul style="list-style-type: none"> ■ For more information, see section Auto-Discovery^[297]. ■ Run Auto-Discovery with Template: Open a dialog to start an automatic search with a standard, detailed, or custom device template. <ul style="list-style-type: none"> ⓘ If you select this option from the context menu, the options you set for the Auto-Discovery Level in the object settings do not apply. ☁ This option is not available on the hosted probe of a PRTG Hosted Monitor instance.
Sort Alphabetically	<p>Sort direct child objects in alphabetical order.</p> <ul style="list-style-type: none"> ⓘ PRTG stores the sorting order in the monitoring configuration. You cannot undo it.
Delete	<p>Delete the object. PRTG asks for confirmation before it actually deletes an object.</p>
Clone	<p>Open a dialog that guides you through the process of cloning the object.</p> <ul style="list-style-type: none"> ■ For more information, see section Clone Object^[4010].

Action	Description
Move	<p>Hover over Move to open the Move menu. The following actions are available:</p> <ul style="list-style-type: none"> ▪ Top: Move the object to the top of the parent object. ▪ Up: Move the object one entry up. ▪ Down: Move the object one entry down. ▪ Bottom: Move the object to the bottom of the parent object. ▪ To Other Group: Move the object to a different group to become a subgroup. ▪ Management: Open the Management^[364] tab of the object.
Pause or Resume	<p>Hover over Pause to open the Pause menu. The following actions are available:</p> <ul style="list-style-type: none"> ▪ Pause monitoring for the object and for all objects underneath in the object hierarchy. You can select Pause Indefinitely, or you can pause the object For 5 Minutes, For 15 Minutes, For 1 Hour, For 3 Hours, For 1 Day, or Until a specific time. If you select Until, you can additionally define a time period. Use the date time picker to enter the date and time. The object automatically resumes monitoring after this time period. ▪ You can also set up a One-time Maintenance Window to automatically pause the object at a specified time. In the dialog that appears, define the start and end date of the maintenance window. Use the date time picker to enter the date and time. <ul style="list-style-type: none"> ⓘ To cancel an active maintenance window before the defined end date, change the time entry under Maintenance Ends to a date in the past. ▪ If the object already shows the Paused status^[197] or if it shows the Down status because of a simulated error, the Resume option appears. Click Resume to restart monitoring on the object.
Priority	<p>Hover over Priority to open the Priority menu. Define the priority of the object.</p> <p> For more information, see section Priority and Favorites^[253].</p>
Historic Data	<p>Hover over Historic Data to open the Historic Data menu. The following actions are available:</p> <ul style="list-style-type: none"> ▪ Open the historic data tabs^[203] for the specified time interval: Last 2 days, Last 30 days, or Last 365 days. ▪ Create Report: Open a dialog to add a new report. <ul style="list-style-type: none"> ⓘ When you create a report via the context menu, PRTG automatically includes the selected probe in the report.

Action	Description
	<p>■ For more information, see section Reports Step by Step ⁴⁰⁷⁵.</p>
Send Link by Email	Send a link to the object by email. Click to create a new email with your system's standard email client. The email contains a direct link to the Overview tab of the object.
Add Ticket	Open the Add Ticket dialog. <p>■ For more information, see section Tickets ²⁴².</p>







Device Menu





The Device Menu contains actions for your [devices](#) ¹⁴⁰.

Device Menu	
 Scan Now	
 Details...	
 Edit	>
 Add Sensor...	
 Auto-Discovery	>
 Create Device Template...	
 Recommend Now	
 Sort Alphabetically	
 Delete...	
 Clone...	
 Move	>
 Pause	>
 Priority/Favorite	>
 Historic Data	>
 Device Tools	>
 Find Duplicates...	
 Send Link by Email	
 Add Ticket	

Device Context Menu

Action	Description
Scan Now	Perform an immediate scan of the object. This queries data for all objects underneath in the object hierarchy ¹³⁸ .

Action	Description
Details	Show the Overview tab ^[201] of the object.
Edit	<p>Hover over Edit to show the Edit menu. The following actions are available:</p> <ul style="list-style-type: none"> ▪ Settings: Open a dialog to edit device settings^[446] for the device. ▪ Notification Triggers: Open the Notification Triggers^[4031] tab of the object. ▪ Access Rights: Open a dialog to edit user access rights^[155] for the object. ▪ Rename: Open a dialog to edit the name of the object.
Add Sensor	<p>Open a dialog that guides you through the process of adding a new sensor to the device.</p> <p> For detailed instructions, see section Add a Sensor^[361].</p>
Auto-Discovery	<p>This option is only available for auto-discovery groups or devices that have the auto-discovery feature enabled^[414]. Hover over Auto-Discovery to show the Auto-Discovery menu. The following actions are available:</p> <ul style="list-style-type: none"> ▪ Run Auto-Discovery: Immediately start a search to automatically add new sensors to the device. The search runs in the background and uses the options you set for the Auto-Discovery Level in the device settings under Device Identification and Auto-Discovery. If there are new sensors, you see them after a few minutes. <p> For more information, see section Auto-Discovery^[297].</p> <p> If you set the option No auto-discovery for the Auto-Discovery Level in the device settings and start the auto-discovery from the context menu, PRTG runs it with the standard device identification and changes the device setting to Standard auto-discovery (recommended).</p> <ul style="list-style-type: none"> ▪ Run Auto-Discovery with Template: Open a dialog to start an automatic search with a standard, detailed, or custom device template. <ul style="list-style-type: none">  If you select this option from the context menu, the options you set for the Auto-Discovery Level in the object settings do not apply. <p> This option is not available on the hosted probe of a PRTG Hosted Monitor instance.</p>
Create Device Template	<p>Open a dialog that guides you through the process of creating a new device template. The template is then available for the auto-discovery.</p> <p> For more information, see section Create Device Template^[4019].</p>

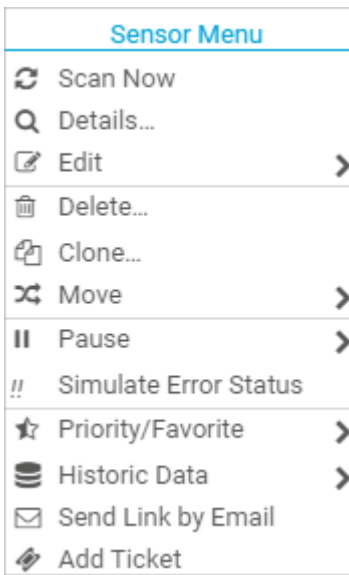
Action	Description
Recommend Now	<p>Start an analysis to get sensor recommendations for the device. When PRTG finishes the analysis of the device, you see the recommended sensors in a table list on the device's Overview tab where you can directly add the respective sensors.</p> <p> This option is only available if the Recommendation Sensors Detection⁴¹⁹¹ is enabled.</p>
Sort Alphabetically	<p>Sort direct child objects in alphabetical order.</p> <p> PRTG stores the sorting order in the monitoring configuration. You cannot undo it.</p>
Delete	<p>Delete the object. PRTG asks for confirmation before it actually deletes an object.</p>
Clone	<p>Open a dialog that guides you through the process of cloning the object.</p> <p> For more information, see section Clone Object⁴⁰¹⁰.</p>
Move	<p>Hover over Move to open the Move menu. The following actions are available:</p> <ul style="list-style-type: none"> ▪ Top: Move the object to the top of the parent object. ▪ Up: Move the object one entry up. ▪ Down: Move the object one entry down. ▪ Bottom: Move the object to the bottom of the parent object. ▪ To Other Group: Move the object to a different group.
Pause or Resume	<p>Hover over Pause to open the Pause menu. The following actions are available:</p> <ul style="list-style-type: none"> ▪ Pause monitoring for the object and for all objects underneath in the object hierarchy. You can select Pause Indefinitely, or you can pause the object For 5 Minutes, For 15 Minutes, For 1 Hour, For 3 Hours, For 1 Day, or Until a specific time. If you select Until, you can additionally define a time period. Use the date time picker to enter the date and time. The object automatically resumes monitoring after this time period. ▪ You can also set up a One-time Maintenance Window to automatically pause the object at a specified time. In the dialog that appears, define the start and end date of the maintenance window. Use the date time picker to enter the date and time. <ul style="list-style-type: none">  To cancel an active maintenance window before the defined end date, change the time entry under Maintenance Ends to a date in the past.

Action	Description
	<ul style="list-style-type: none"> If the object already shows the Paused status^[197] or if it shows the Down status because of a simulated error, the Resume option appears. Click Resume to restart monitoring on the object.
Priority/Favorite	<p>Hover over Priority/Favorite to open the Priority/Favorite menu. Define the priority of the object, add the object to the favorites list, or remove it from the favorites list.</p> <p>■ For more information, see section Priority and Favorites^[253].</p>
Historic Data	<p>Hover over Historic Data to open the Historic Data menu. The following actions are available:</p> <ul style="list-style-type: none"> Open the historic data tabs^[203] for the specified time interval: Last 2 days, Last 30 days, or Last 365 days. Create Report: Open a dialog to add a new report. <ul style="list-style-type: none"> ⓘ When you create a report via the context menu, PRTG automatically includes the selected probe in the report. <p>■ For more information, see section Reports Step by Step^[4075].</p>
Device Tools	<p>Hover over Device Tools to open the Device Tools menu.</p> <p>☁ This option is not available on the hosted probe of a PRTG Hosted Monitor instance.</p> <div> </div> <p style="text-align: center;">Device Tools Menu</p> <p>The following actions are available:</p> <ul style="list-style-type: none"> Go to Service URL: Open the service page that you defined in the device settings^[446]. If no service URL is available for the device, you can enter an address in the dialog that appears. New Window with HTTP: Open a new browser window with HTTP and the IP address or Domain Name System (DNS) name of the device. New Window with HTTPS: Open a new browser window with HTTPS and the IP address or DNS name of the device.

Action	Description
	<ul style="list-style-type: none"> ▪ New Window with FTP: Open a new browser window with the File Transfer Protocol (FTP) and the IP address or DNS name of the device. ▪ Remote Desktop: Download an .rdp file. When you execute this file, a remote desktop starts with the IP address or DNS name of the device. <ul style="list-style-type: none"> ① In Firefox, you have to use mstsc.exe (Microsoft Terminal Service) to open the file. ▪ Traceroute: Start a traceroute on the device. PRTG displays the route and measures transit delays of packets across the IP network. ▪ Install Remote Probe: Open a dialog to install a remote probe on the device. For more details, see Remote Probe Setup via Device Tools⁴⁵⁰⁷. <ul style="list-style-type: none"> ① This option is only available on devices on local probes. <p>☁ This option is not available in PRTG Hosted Monitor.</p>
Find Duplicates	In your configuration, search for devices with the same IP address or DNS name as the selected device.
Send Link by Email	Send a link to the object by email. Click to create a new email with your system's standard email client. The email contains a direct link to the Overview tab of the object.
Add Ticket	Open the Add Ticket dialog. <ul style="list-style-type: none"> ■ For more information, see section Tickets²⁴².





Sensor Menu






The Sensor Menu contains actions for your [sensors](#)¹⁴⁰.



Sensor Context Menu
















Action	Description
Scan Now	Perform an immediate scan of the object.
Details	Show the Overview tab of the object.
Edit	<p>Hover over Edit to show the Edit menu. The following actions are available:</p> <ul style="list-style-type: none"> Settings: Open a dialog to edit sensor settings for the sensor. Notification Triggers: Open the Notification Triggers tab of the object. Access Rights: Open a dialog to edit user access rights for the object. Rename: Open a dialog to edit the name of the object.
Acknowledge Alarm	<p>This option is only available in the sensor context menu when you select a sensor in the Down or Down (Partial) status.</p> <p>You can acknowledge an alarm for the sensor. A sensor with an acknowledged alarm shows the Down (Acknowledged) status and does not trigger any more notifications.</p> <div style="border: 1px solid gray; padding: 5px; margin: 10px 0;"> <ul style="list-style-type: none"> ✓ Acknowledge Indefinitely... 🕒 For 5 Minutes... 🕒 For 15 Minutes... 🕒 For 1 Hour... 🕒 For 3 Hours... 🕒 For 1 Day... 🕒 Until... </div> <p>Acknowledge Alarm Context Menu</p>

Action	Description
	<p>The following actions are available:</p> <p>You can select Acknowledge Indefinitely, or you can acknowledge the alarm For 5 Minutes, For 15 Minutes, For 1 Hour, For 3 Hours, For 1 Day, or Until a specific time. If you select Until, you can additionally define a time period. Use the date time picker to enter the date and time. If the alarm condition still exists after this time period, the sensor shows the Down status again.</p> <p> When the alarm condition clears, the sensor usually returns to the Up status immediately with the next sensor scan.</p> <p> For details about acknowledging an alarm, see section Alarms ²²⁹.</p>
Delete	Delete the object. PRTG asks for confirmation before it actually deletes an object.
Clone	<p>Open a dialog that guides you through the process of cloning the object.</p> <p> For more information, see section Clone Object ⁴⁰¹⁰.</p>
Move	<p>Hover over Move to open the Move menu. The following actions are available:</p> <ul style="list-style-type: none"> ▪ Top: Move the object to the top of the parent object. ▪ Up: Move the object one entry up. ▪ Down: Move the object one entry down. ▪ Bottom: Move the object to the bottom of the parent object.
Pause or Resume	<p>Hover over Pause to open the Pause menu. The following actions are available:</p> <ul style="list-style-type: none"> ▪ Pause monitoring for the object and for all objects underneath in the object hierarchy. You can select Pause Indefinitely, or you can pause the object For 5 Minutes, For 15 Minutes, For 1 Hour, For 3 Hours, For 1 Day, or Until a specific time. If you select Until, you can additionally define a time period. Use the date time picker to enter the date and time. The object automatically resumes monitoring after this time period. ▪ You can also set up a One-time Maintenance Window to automatically pause the object at a specified time. In the dialog that appears, define the start and end date of the maintenance window. Use the date time picker to enter the date and time. <ul style="list-style-type: none">  To cancel an active maintenance window before the defined end date, change the time entry under Maintenance Ends to a date in the past.

Action	Description
	<ul style="list-style-type: none"> ▪ If the object already shows the Paused status^[197] or if it shows the Down status because of a simulated error, the Resume option appears. Click Resume to restart monitoring on the object.
Simulate Error Status	<p>Manually set the sensor to the Down status. If the sensor already shows the Down status because of a simulated error, the Resume option appears. Click Resume to restart monitoring.</p> <p> The Simulate Error Status option does not work for sensors that run on mini probes.</p>
Priority/Favorite	<p>Hover over Priority/Favorite to open the Priority/Favorite menu. Define the priority of the object, add the object to the favorites list, or remove it from the favorites list.</p> <p> For more information, see section Priority and Favorites^[253].</p>
Historic Data	<p>Hover over Historic Data to open the Historic Data menu. The following actions are available:</p> <ul style="list-style-type: none"> ▪ Open the historic data tabs^[203] for the specified time interval: Last 2 days, Last 30 days, or Last 365 days. ▪ View Historic Data: Open the Historic Data^[208] tab. ▪ Create Report: Open a dialog to add a new report. <ul style="list-style-type: none">  When you create a report via the context menu, PRTG automatically includes the selected probe in the report. <p> For more information, see section Reports Step by Step^[4075].</p>
Send Link by Email	<p>Send a link to the object by email. Click to create a new email with your system's standard email client. The email contains a direct link to the Overview tab of the object.</p>
Add Ticket	<p>Open the Add Ticket dialog.</p> <p> For more information, see section Tickets^[242].</p>

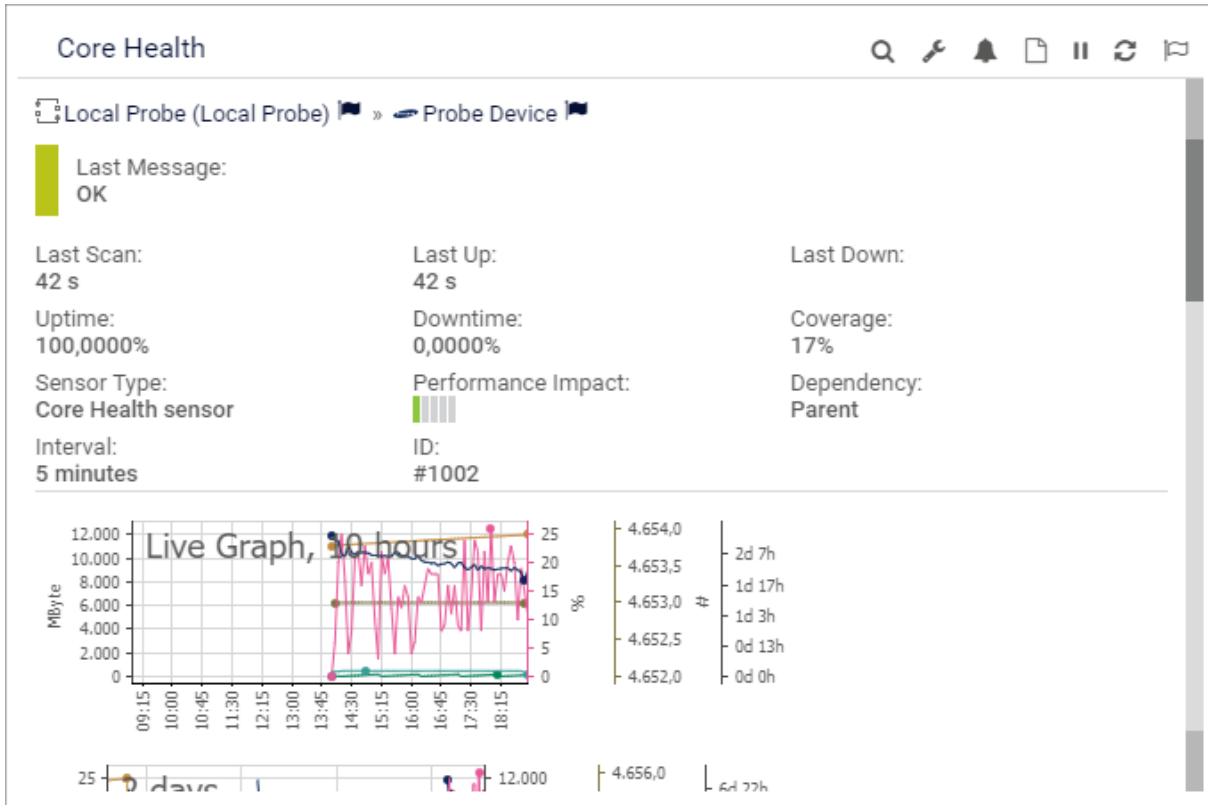
Basic Procedures

- [Login](#)^[164]
- [SSL Certificate Warning](#)^[169]
- [Welcome Page](#)^[174]
- [General Layout](#)^[183]
- [Sensor States](#)^[197]
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- [Object Settings](#)  226
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6.20 Hover Popup

When you rest the mouse pointer over an object's icon in the [device tree](#)^[183] or in [table lists](#)^[246], for example, a hover popup window appears and shows details about this object. The hover popup contains information from the object's Overview [tab](#)^[207] as well as several graphs. The exact information that PRTG provides depends on the type of object.



Hover Popup Example: Core Health Sensor

- ⓘ The hover popup only appears if your browser window that shows the PRTG web interface is the active window on your desktop. The hover popup disappears with every (automatic) page refresh.

Quick Action Buttons

In the top-right corner of the hover popup window, you can see several quick action buttons with which you can view or edit the object. These are the most important options from the object's [context menu](#)^[259].







- ⓘ The available buttons depend on the type of object that you hover over.

Action	Description
Details (🔍)	Show the Overview tab of the object.
Settings (🔧)	Open the object's settings.

Action	Description
Notification Triggers (🔔)	Show the Notification Triggers tab of the object.
Rename (📄)	Open a dialog to edit the name of the object.
Pause Indefinitely (⏸)	Indefinitely pause the object and all objects underneath in the object hierarchy ^[138] . If you want to resume monitoring, you have to manually resume the paused object.
Resume (▶)	Resume monitoring for the object and all objects underneath in the object hierarchy.
Delete (🗑)	Delete the object. PRTG asks for confirmation before it actually deletes an object.
Scan Now (🔄)	Perform an immediate scan of the object. This queries data for all objects underneath in the object hierarchy.
Add to Favorites (🔖)	Make the object a favorite ^[253] and add it to your favorites list.
Remove from Favorites (🚫)	Remove the object from your favorites list.

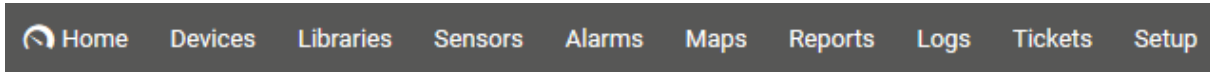
Basic Procedures

- [Login](#)^[164]
- [SSL Certificate Warning](#)^[169]
- [Welcome Page](#)^[174]
- [General Layout](#)^[183]
- [Sensor States](#)^[197]
- [Review Monitoring Data](#)^[201]
- [Historic Data Reports](#)^[208]
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6.21 Main Menu Structure

You can access all functions via the main menu bar. In this section, you find information about the most important menu items. You can either directly click a menu item or you can hover over it to show more options.



Main Menu Bar

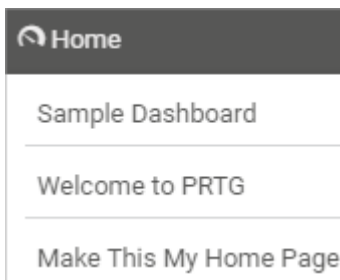
i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

The following menu items are available:

- [Home](#) ²⁷⁸
- [Devices](#) ²⁷⁹
- [Libraries](#) ²⁸¹
- [Sensors](#) ²⁸²
- [Alarms](#) ²⁸⁵
- [Maps](#) ²⁸⁵
- [Reports](#) ²⁸⁶
- [Logs](#) ²⁸⁷
- [Tickets](#) ²⁸⁸
- [Setup](#) ²⁸⁹
- [Search Box](#) ²⁹²
- [Logout](#)

Home

Click to open your homepage. The default homepage is the [Welcome](#) ¹⁸³ page. Hover over Home to show other options.

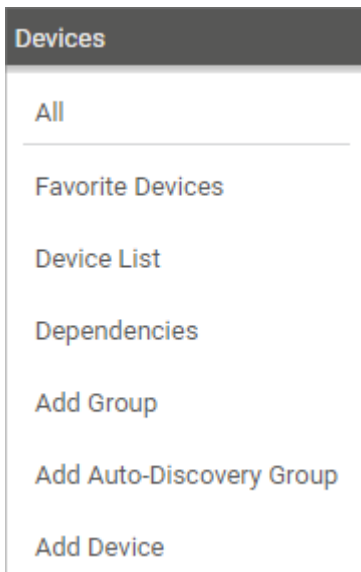


Main Menu: Home



Option	Description
Sample Dashboard	<p>Open a preconfigured dashboard to view monitoring data in a different layout. This dashboard is one of the default maps that PRTG automatically creates with a new installation.</p> <p>i The Home menu shows maps that have a 5-star priority (★★★★★) To show a map here, give it 5 stars on the Maps overview via the main menu bar. You can include up to 10 map entries in the menu. For more information, see section Maps in Home Menu.</p> <p>i You can change the appearance of the default dashboard with the Map Designer. To not show the sample dashboard in the menu, define a priority that is lower than 5 stars for this map.</p> <p>☁ This option is not available in PRTG Hosted Monitor.</p>
Switch Cluster Node	<p>This option is only available if PRTG runs in a cluster.</p> <p>Show available cluster nodes. Hover over Switch Cluster Node to show other options. Follow the menu path that is specific to your setup to select a different cluster node. The current master node is shown in bold letters. Click a cluster node's name to leave the current cluster node, to connect to the other cluster node, and to show the same page there.</p> <p>☁ This option is not available in PRTG Hosted Monitor.</p>
Welcome to PRTG	<p>Open the Welcome page that shows the Paessler news feed and various information about your PRTG installation. It also provides links to major sections of the PRTG web interface.</p> <p>i This is the default homepage of the PRTG web interface.</p>
Make This My Home Page	<p>Change the page that is loaded when you click Home in the main menu bar. Select this option on any page to set its URL as your home page. This setting is user sensitive. The default home page is /welcome.htm.</p> <p>i You can also change the home page under Home Page URL in the My Account settings.</p>

Devices

Click to show the device tree. Hover over Devices to show other options.



Main Menu: Devices

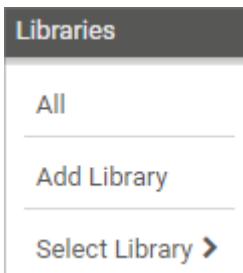
Option	Description
All	Open the Overview tab of the root group [138] that shows the device tree [183].
Favorite Devices	Open a table list [246] of all devices that you marked as favorites [253]. Click  to show a printable list of the QR codes of all your favorite devices. ⓘ To mark any device as a favorite device, select Priority/Favorite | Add to Favorites from its context menu, or click  on a device's Overview tab.
Device List	Open a list of all devices in your setup.
Dependencies	Open an overview list of the dependencies [148] configured for the objects in your setup. You can select dependencies and define master dependencies in the Schedules, Dependencies, and Maintenance Windows object settings [226] (not available for the root group).
Add Group	Start a dialog that guides you through the process of adding a new group to your setup. ■ For more information, see section Create Objects Manually [299]. ⓘ You can also create new groups by selecting Add Group from a probe's or group's context menu.
Add Auto-Discovery Group	Start a dialog that guides you through the process of adding a new auto-discovery group to your setup. PRTG creates a new group and runs an auto-discovery in your network to automatically add devices and sensors to this group. ■ For more information, see section Add an Auto-Discovery Group [300].

Option	Description
	<p>i You can also create new auto-discovery groups by selecting Add Auto-Discovery Group from a probe's or group's context menu.</p> <p>☁ This option is not available on the hosted probe of a PRTG Hosted Monitor instance.</p>
Add Device	<p>Start a dialog that guides you through the process of adding a new device to a group. During the process, you can choose if PRTG runs an auto-discovery for the new device to automatically add sensors.</p> <p>■ For more information, see section Create Objects Manually ²⁹⁹.</p> <p>i You can also create new devices by selecting Add Device from a group's context menu.</p>

Libraries

Click to open the Libraries list where you can view or add custom device tree views of your network status and monitoring data. Hover over Libraries to show other options.

■ For more information, see section [Libraries](#) ⁴⁰⁴⁷.

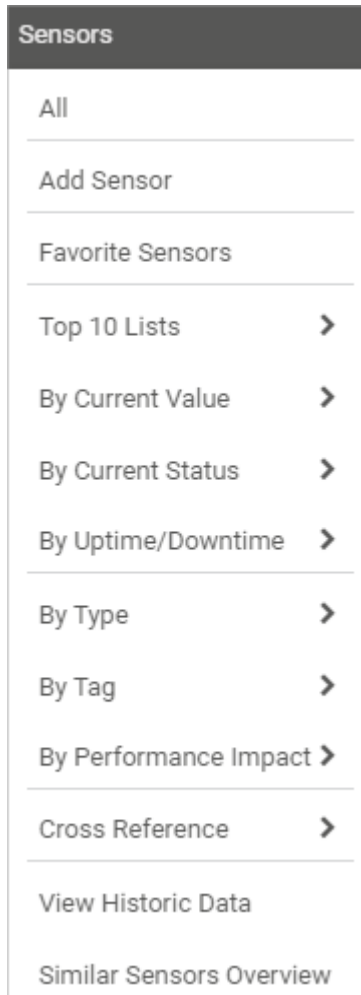


Main Menu: Libraries

Option	Description
All	Open the Libraries list where you can view or add custom device tree views of your network status and monitoring data.
Add Library	Open a dialog to create ⁴⁰⁵¹ a new library.
Select Library	Open a library. Hover over Select Library to show more options. Follow the alphabetical menu path that is specific to your setup to view your libraries. Click a library to open it.






Sensors

Click to open a list of all [sensors](#)^[140]. Hover over Sensors in the main menu bar to show other options.



Main Menu: Sensors

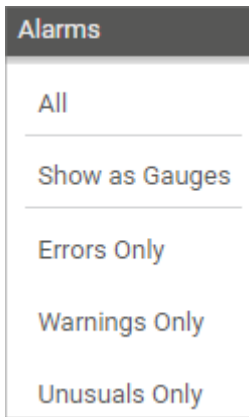
Option	Description
All	<p>Open a table list of all sensors^[140]. In list, you can sort the items via the column headers.</p> <p>i The column Last Value shows only the last value of the sensor's primary channel.</p>
Add Sensor	<p>Start a dialog that guides you through the process of adding a new sensor to a device. For more information, see section Add a Sensor^[361]. During the process, you can also choose to create a new device via the Add a Device^[340] dialog, which you can also open directly from the Devices menu^[279].</p>
Favorite Sensors	<p>Open a list of all sensors that you marked as favorites.</p>

Option	Description
Top 10 Lists	<p> To mark any sensor as a favorite sensor, select Priority/Favorite | Add to Favorites from its context menu or click  on a sensor's Overview tab.</p> <p>Open a dashboard view with different top 10 lists that show the highest uptime or downtime, Ping response times, the bandwidth usage, website response times, the CPU usage, the disk usage, the memory usage, and the system uptime. Click to show top 10 lists for all sensors. Hover over Top 10 Lists to show other options. Follow the menu path that is specific to your setup to only view top 10 lists for a specific probe or group.</p> <p> The shown sensors are selected by default tags.</p>
By Current Value	<p>Open a list of sensors filtered by value. Hover over By Current Value to show other options. Follow the menu path to view lists of sensors with the Fastest Value or the Slowest Value for</p> <ul style="list-style-type: none"> ▪ Ping ▪ Port ▪ Webpages ▪ IMAP/POP3/SMTP ▪ FTP <p>as well as a list of sensors with the Highest Value or the Lowest Value regarding</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ CPU ▪ Disk ▪ Memory <p> The shown sensors are selected by default tags.</p>
By Current Status	<p>Open a list of sensors filtered by status. Hover over By Current Status to show other options. Follow the menu path to view lists of all sensors in a specific status.</p> <p> For more information, see section Sensor States¹⁹⁷.</p>
By Uptime/Downtime	<p>Open a list of sensors filtered by different parameters. Hover over By Uptime/Downtime to show other options. Follow the menu path to view lists of all sensors sorted by</p> <ul style="list-style-type: none"> ▪ Best Uptime (%) ▪ Highest Uptime (Time)

Option	Description
By Type	<ul style="list-style-type: none"> ▪ Worst Downtime (%) ▪ Highest Downtime (Time) <p>Open a list of sensors filtered by sensor type^[458]. Hover over By Type to show other options. Follow the alphabetical menu path that is specific to your setup to view a sensor list that contains only sensors of one specific sensor type.</p>
By Tag	<p>Open a list of sensors filtered by tag^[145]. Hover over By Tag to show other options. Follow the alphabetical menu path that is specific to your setup to see available tags. Select a tag to view a list that contains only sensors marked with this tag.</p> <p>i If you have more than 1,000 tags, no tags are shown here. For more information, see section Tags^[146].</p>
By Performance Impact	<p>Open a list of sensors filtered by performance impact^[424]. Follow the menu path to view a sensor list that contains only sensors with a specific level of impact on the performance of the probe. You can choose between the following levels of impact:</p> <ul style="list-style-type: none"> ▪ Very High ▪ High ▪ Medium ▪ Low ▪ Very Low <p>■ For an overview list of sensors sorted by performance impact, see also section List of Sensors by Performance Impact^[467].</p>
Cross Reference	<p>Open the sensor cross reference to show information about all sensors including priority and favorite^[253] status, scanning interval^[379], access rights^[155], notification trigger settings^[226], schedules^[150], and dependencies^[148]. Click to show a sensor cross reference for all sensors. Hover over Cross Reference to show other options. Follow the menu path that is specific to your setup to view cross reference information for sensors by type or tag.</p>
View Historic Data	<p>Open a dialog to generate historic sensor data reports.</p> <p>■ For more information, see section Historic Data Reports^[208].</p>
Similar Sensors Overview	<p>Open an overview with a list of similar sensors.</p> <p>■ For more information, see section Similar Sensors^[215].</p>

Alarms

Click to open a list of all sensors that show the Down, Down (Partial), Down (Acknowledged), Warning, or Unusual status. Hover over Alarms to show other options.



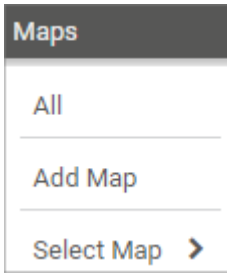
Main Menu: Alarms

Option	Description
All	Open a list of all sensors that are in the Down, Down (Partial), Down (Acknowledged), Warning, or Unusual status.
Show as Gauges	Open a page with the gauges of all sensors that are in the Down, Down (Partial), Down (Acknowledged), Warning, or Unusual status. The size of the gauges corresponds to the sensor's priority.
Errors Only	Open a list of all sensors that are in the Down, Down (Partial), or Down (Acknowledged) status.
Warnings Only	Open a list of all sensors that are in the Warning status.
Unusals Only	Open a list of all sensors that are in the Unusual status.


Maps

Click to open the Maps overview where you can view or add custom views of your network status and monitoring data. Hover over Maps to show other options.

For more information, see section [Maps](#) .





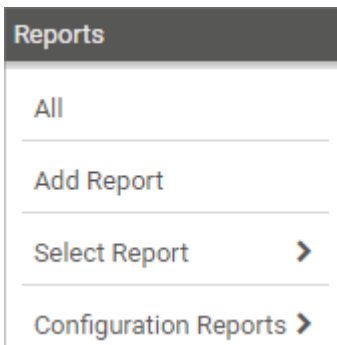
Main Menu: Maps

Option	Description
All	Open the Maps list where you can view or add custom views of your network status and monitoring data.
Add Map	Open a dialog to create  a new map.
Select Map	Hover over Select Map to show a list of your maps. Click a map to open it.


Reports

Click to open the Reports overview where you can view or add reports about your monitoring data. Hover over Reports to show other options.

 For more information, see section [Reports](#) .



Main Menu: Reports


Option	Description
All	Open the Reports list where you can view or add reports about your monitoring data.
Add Report	Open a dialog to create  a new report.

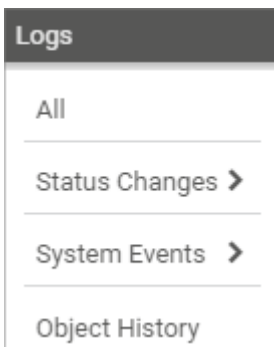
Option	Description
Select Report	Hover over Select Report to show a list of your reports about monitoring data. Click a report to open it.
Configuration Reports	Hover over Configuration Reports to see the available configuration reports ⁴⁰⁷² . Select an item to create reports for maps, reports, users and user groups, and system configuration to document changes to the configuration.

Logs

Click to show log information for all objects in your configuration. Hover over Logs to show other options.



 For more information, see section [Logs](#)²³⁷.

 Logs for monitoring objects (for example, sensors) are available as long as you define Log File Records in the Historic Data Purging settings under Setup | System Administration | Core & Probes.



Main Menu: Logs

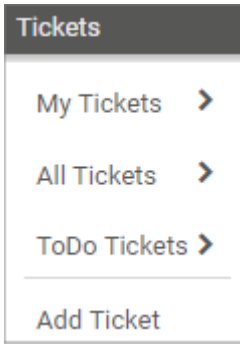
Option	Description
All	Open a list with log information about all objects in your installation. The list begins with the most recent log entry.
Status Changes	Open a list with log information about specific status changes. Hover over Status Changes to show the following sensor states: <ul style="list-style-type: none"> ▪ Up & Down ▪ Down ▪ Warning ▪ Unusual ▪ Up ▪ Paused/Resumed

Option	Description
System Events	<ul style="list-style-type: none"> ▪ Acknowledged Alarms <p>Open a list with log information about specific system event types. Hover over System Events to show the following event types:</p> <ul style="list-style-type: none"> ▪ Probe Related ▪ Cluster Related ▪ Auto-Discovery Related ▪ Notifications Related ▪ Status Message Related
Object History	<p>Open a list with log information about changes to the PRTG setup and deletions of subordinate system objects. The Object History has several tabs. To view the changes to all related settings and deletions of objects, use the following tabs:</p> <ul style="list-style-type: none"> ▪ My Account ▪ System Administration ▪ Notification Templates ▪ Schedules ▪ User Accounts ▪ User Groups ▪ Reports ▪ Libraries ▪ Maps <p> You can also navigate to a corresponding page, for example, you can select Setup | Account Settings | My Account from the main menu bar, and click  in the page header bar ¹⁸⁶ to directly go to the related object history tab.</p>

Tickets

Click to show all open tickets that are assigned to you. Hover over Tickets to show other options.

 For more information, see section [Tickets](#) ²⁴⁰.



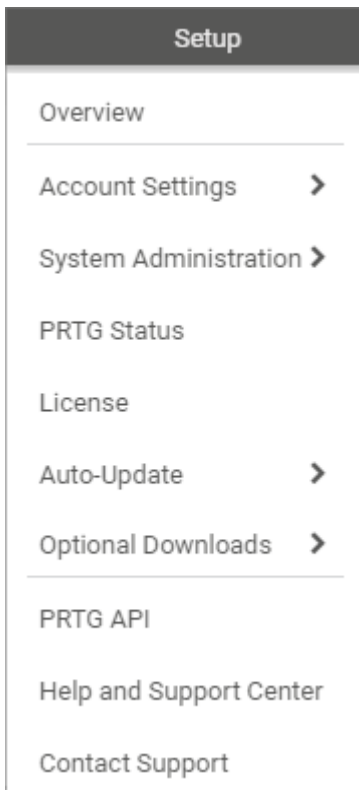
Main Menu: Tickets

Option	Description
My Tickets	Open a list of all open tickets that are assigned to you. Hover over My Tickets to show other options to filter these tickets according to their status.
All Tickets	Open a list of all open tickets of all users. Hover over All Tickets to show other options to filter these tickets according to their status.
ToDo Tickets	Open a list of open tickets of the type ToDo . Hover over ToDo Tickets to show other options to filter these tickets according to their status.
Add Ticket	Open the Add Ticket dialog to create a user ticket . ■ For more information about available options, see section Tickets ²⁴⁰ .



Setup























Click to show the setup page. Hover over Setup to show other options.

■ For more information, see section [Setup](#)⁴¹²¹.



Main Menu: Setup

Option	Description
Overview	Open the setup page ⁴¹²¹ .
Account Settings	Open the My Account ⁴¹²³ settings. Hover over Account Settings to directly show and open the the account settings tabs: <ul style="list-style-type: none"> ▪ My Account ⁴¹²³ ▪ Notification Templates ⁴¹³¹ ▪ Notification Contacts ⁴¹⁶³ ▪ Schedules ⁴¹⁶⁹
System Administration	Open the System Administration ⁴¹⁷⁵ settings. Hover over System Administration to directly show and open the system administration tabs: <ul style="list-style-type: none"> ▪ Manage Subscriptions ⁷⁰  (PRTG Hosted Monitor only) ▪ User Interface ⁴¹⁷⁵ ▪ Monitoring ⁴¹⁸⁷ ▪ Notification Delivery ⁴¹⁹⁴ ▪ Core & Probes ⁴²⁰² ▪ Cluster ⁴²²⁹  (PRTG on premises only)

Option	Description
	<ul style="list-style-type: none"> ▪ User Accounts  ▪ User Groups  ▪ Administrative Tools  ▪ Single Sign-On 
PRTG Status	<p>Open the System Status  page. If you run PRTG in a cluster, hover over PRTG Status to show other options:</p> <ul style="list-style-type: none"> ▪ System Status  ▪ Cluster Status 
License Information	<p>Open the license information  page.</p> <p> This option is not available in PRTG Hosted Monitor.</p>
Auto-Update	<p>Open information about the Software Auto-Update  status of your PRTG installation. On this page, you can also download and install available updates. Hover over Auto-Update to show other options:</p> <ul style="list-style-type: none"> ▪ Status : View the update status and manually check for the latest update. ▪ Settings : Define your update settings. <p> This option is not available in PRTG Hosted Monitor.</p>
Optional Downloads	<p>Open the download page  for additional downloads. Hover over Optional Downloads to show other options:</p> <ul style="list-style-type: none"> ▪ PRTG Apps  ▪ PRTG Desktop  ▪ Remote Probe Installer 
PRTG API	<p>Open the Application Programming Interface (API) Definition .</p>
Help and Support Center	<p>Open the Help and Support Center  from where you can access the PRTG Manual, the Knowledge Base, and video tutorials. You can also open support tickets  and contact our customer service  from this page.</p>
Contact Support	<p>Open the Contact Paessler Support / Send Your Feedback to Paessler  form.</p>

Search Box



Main Menu: Search Box

Click the Search box to find objects in your monitoring setup. Enter your search term and press the **Enter** key. PRTG performs a string search in your entire monitoring setup, including groups, devices, sensors, libraries, maps, reports, tickets, and object comments, as well as in the PRTG Manual. You see all search results on a new page.





- i** You can only search for names that are actually displayed. To search for a specific user, for example, use their display name. You cannot search for the user's login name or email address.
- i** PRTG uses different logical operators for the search in tickets and for the search in other objects. For the ticket search, PRTG uses the logical operator **OR**. If you search for a string like 'operating system', for example, you receive results for all tickets that contain either 'operating' or 'system' or both. For all other objects, PRTG uses the logical operator **AND**. So you receive results for all other objects that contain both 'operating' and 'system'.

Logout

Click  to log out of PRTG and return to the [login screen](#)^[164].

Basic Procedures

- [Login](#)^[164]
- [SSL Certificate Warning](#)^[169]
- [Welcome Page](#)^[174]
- [General Layout](#)^[183]
- [Sensor States](#)^[197]
- [Review Monitoring Data](#)^[201]
- [Historic Data Reports](#)^[208]
- [Similar Sensors](#)^[215]
- [Recommended Sensors](#)^[221]
- [Object Settings](#)^[226]
- [Alarms](#)^[228]
- [System Information](#)^[231]
- [Logs](#)^[237]
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- [Working with Table Lists](#)^[246]
- [Object Selector](#)^[251]
- [Priority and Favorites](#)^[253]

- [Pause](#)  256
- [Context Menus](#)  259
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- [Main Menu Structure](#)  278

Part 7

Device and Sensor Setup

7 Device and Sensor Setup

The PRTG web interface is your access to PRTG via a web browser. The PRTG web interface is based on Asynchronous JavaScript and XML (AJAX). It uses a responsive design to adjust to the size of your screen.

Use the PRTG web interface as the default interface to set up your monitoring. You can use it to configure devices and sensors, to set up notifications, to review monitoring results, to create reports, and to visualize your monitoring on dashboards.

While you are [logged in](#)¹⁶⁴, the PRTG web interface continuously refreshes the data on the screen via AJAX calls. This way, you are always up to date regarding your monitoring results. You can individually [set](#)⁴²¹⁵ the refresh interval and method.

With the Single Page Application (SPA) technology, your system stays highly performant because only single page elements are refreshed when necessary.

The following sections introduce how to set up devices and sensors in the PRTG web interface.

Device and Sensor Setup

- [Auto-Discovery](#)²⁹⁶
- [Create Objects Manually](#)²⁹⁹
- [Manage Device Tree](#)³⁶⁴
- [Root Group Settings](#)³⁶⁶
- [Probe Settings](#)³⁸⁵
- [Group Settings](#)⁴¹³
- [Device Settings](#)⁴⁴⁶
- [Sensor Settings](#)⁴⁷⁶
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.1 Auto-Discovery

The auto-discovery automatically creates a set of sensors for all of the devices that are in your network. The auto-discovery is primarily intended for devices that are in the same network as your probes.

i PRTG runs an initial auto-discovery as soon as you finish the installation of PRTG. It automatically shows you several devices that are available in your network as well as suitable sensors for monitoring.

How the Auto-Discovery Works

The auto-discovery has three steps:

1. Scan a network segment for devices via Ping (at the group level only).
2. Assess the device type for all of the devices that it discovered in step 1 (via the Simple Network Management Protocol (SNMP), Windows Management Instrumentation (WMI), and other protocols).
3. Create sensor sets that match the discovered device types from step 2. It does this based on built-in device templates that have recommended sensors for many device types. Optionally, it can also create sensor sets via device templates that users [created](#)^[4019].

You can use [auto-discovery groups](#)^[300] to use the auto-discovery for a range of IP addresses or for individual devices that you manually created. You can run the auto-discovery one time, on demand via the context menu, or via schedule at every hour, day, or week. If you run the auto-discovery at group level daily or weekly, it automatically creates new devices when they connect to the network and it adds suitable sensors.

i PRTG creates a notifying [ticket](#)^[240] when it discovers at least one new device or sensor. You also receive a ticket if an error occurs. By default, PRTG also sends tickets via email. You can change this in the [My Account](#)^[4123] settings.

i HTTP sensors' names indicate the protocol that they use to access the target device ([HTTP](#), [HTTP \(8080\)](#), and [HTTPS](#)). This distinguishes HTTP sensors from each other if the auto-discovery adds more than one HTTP sensor to a device.

Restrictions

Note the following restrictions of the auto-discovery:

- PRTG cannot discover devices that are not reachable via Ping. This is because step 1 scans for devices via Ping. If, for example, a firewall blocks echo requests, PRTG cannot discover a device behind the firewall.
- Define credentials for objects that are higher in the [object hierarchy](#)^[138], for example, in the settings of the parent device. If possible, we recommend that you define these settings in the [root group](#)^[366].
- If a device has more than one IP address, it may show up more than once in the auto-discovery results, even though PRTG tries to identify these situations.
- Auto-discovery on group level does not create new sensors on devices that already exist, but only on newly discovered devices. If you want to automatically add sensors to a device, run the auto-discovery on the device via its [context menu](#)^[266].

- Frequent auto-discoveries of large network segments can lead to performance issues. Because of this we recommend that you only schedule regular auto-discoveries where necessary.
 - For more information, see the Knowledge Base: [Why can automatic auto-discoveries evoke performance issues?](#)
- PRTG automatically adds suitable device icons to discovered devices. PRTG uses a device's MAC address for this purpose, which it determines via the Address Resolution Protocol (ARP). This only works via IPv4 and not via IPv6. Usually, ARP works only in the local network unless your router supports ARP and you configure it accordingly.
- The auto-discovery does not apply the [user group setting](#)^[4219] Allowed Sensors. Therefore, the auto-discovery adds all sensors that are defined in the used device templates.

Run the Auto-Discovery Now

You can run an auto-discovery at any time for a group or a device. To do so, right-click the respective object and select Run Auto-Discovery from the context menu. PRTG immediately starts to search for new objects to add to the device tree. If you use the auto-discovery for an auto-discovery group (not available on hosted probes), PRTG adds devices with suitable sensors, if it finds any. If you use it for a device, PRTG adds new sensors, if found. In the corresponding [page header bar](#)^[186], you can always see when PRTG ran the last auto-discovery on a selected group or device.

- ⓘ The auto-discovery also adds manually deleted devices or sensors again. If you do not want this to happen, you have to always create objects [manually](#)^[299].

Auto-Discovery in Progress

While the auto-discovery is in progress, you might experience a lower system performance than usual, because PRTG is working in the background to discover your network. Depending on the IP address ranges defined (up to 65,536 addresses), the discovery might run for up to several days before it is complete. You can review the status of the discovery process as follows:

- In the device tree, next to the group or device name, you can see a percentage value that shows the progress of the auto-discovery.
- During the auto-discovery, the PRTG web interface displays a box in the lower-right corner that shows the number of active auto-discovery tasks.
- To stop an auto-discovery, right-click the group or device, and select Pause | For 5 minutes from the context menu. PRTG [pauses](#)^[256] monitoring for 5 minutes and stops the auto-discovery tasks.

Disable Initial Auto-Discovery

To disable the initial auto-discovery for a fresh PRTG installation, run the installer in a command prompt and add `/NoInitialAutoDisco=1` as parameter. This may be useful for performance reasons or if you prefer to manually add devices and sensors to your installation.

More

■ KNOWLEDGE BASE

Why can automatic auto-discoveries evoke performance issues?

- <https://kb.paessler.com/en/topic/14423>












How can I turn off auto-discovery?

- <https://kb.paessler.com/en/topic/10403>

How does auto-discovery with SNMP Traffic sensors work?

- <https://kb.paessler.com/en/topic/85407>

Device and Sensor Setup

- [Auto-Discovery](#)  296
- [Create Objects Manually](#)  299
- [Manage Device Tree](#)  364
- [Root Group Settings](#)  366
- [Probe Settings](#)  385
- [Group Settings](#)  413
- [Device Settings](#)  446
- [Sensor Settings](#)  476
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.2 Create Objects Manually

We recommend that you use the [auto-discovery](#)^[296] function to create a basic monitoring setup for your network. Afterward, you can manually add devices that were not discovered, or [arrange](#)^[4007] detected devices in groups.

The procedure depends on the kind of object that you want to add:

- [Add an Auto-Discovery Group](#)^[300]
- [Add a Group](#)^[323]
- [Add a Device](#)^[340]
- [Add a Sensor](#)^[361]


Add a Remote Probe


■ For more information, see section [Add Remote Probe](#)^[4501].

Device and Sensor Setup


- [Auto-Discovery](#)^[296]
- [Create Objects Manually](#)^[299]
- [Manage Device Tree](#)^[364]
- [Root Group Settings](#)^[366]
- [Probe Settings](#)^[385]
- [Group Settings](#)^[413]
- [Device Settings](#)^[446]
- [Sensor Settings](#)^[476]
- [Additional Sensor Types \(Custom Sensors\)](#)^[3972]
- [Channel Settings](#)^[3977]
- [Notification Triggers Settings](#)^[3987]

7.2.1 Add an Auto-Discovery Group

 This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

 You cannot use this feature on the hosted probe of a PRTG Hosted Monitor instance. You can use this feature on remote probes.

There are several ways to manually add an auto-discovery group:

- Select Devices | Add Auto-Discovery Group from the [main menu bar](#)^[279]. A dialog appears that guides you through the process of starting an automatic detection of devices and sensors in your network.
- Hover over  and select Add Auto-Discovery Group from the menu.
- Select Add Auto-Discovery Group from the [context menu](#)^[259] of the probe or group to which you want to add the new auto-discovery group. This skips step 1 and leads you directly to [step 2](#)^[302].

Add an Auto-Discovery Group

The Add an Auto-Discovery Group dialog appears when you add a new auto-discovery group to a parent group. It only shows the settings that are required to create the auto-discovery group. Therefore, you do not see all settings in this dialog.

 You can change all settings on the Settings tab of the auto-discovery group later. For more information, see section [Group Settings](#)^[413].

Step 1: Select a Parent

Add an Auto-Discovery Group (Step 1 of 2)

Select a Parent
Select a parent object for the auto-discovery group.

PRTG Manual: Add an Auto-Discovery Group

Add a New Auto-Discovery Group
To automate the monitoring setup, define an auto-discovery level and a list of device IP addresses/DNS names. PRTG will automatically create devices and add suitable sensors.

Select a Probe or Group to Add the New Auto-Discovery Group to

Select a probe or group from the list. You can add a new auto-discovery group faster by right-clicking a probe or group in the device tree and selecting **Add Auto-Discovery Group** from the context menu.

Search...

- Root
 - Local Probe
 - 1st group
 - MAIL
 - Group
 - ROUTER/SWITCHES
 - VMWARE
 - SNMP
 - Servers
 - DATABASES
 - MISC
 - CLOUD
 - Services
 - WINDOWS
 - eHealth

Add Auto-Discovery Group Assistant Step 1

Select the probe or group that you want to add the new auto-discovery group to. Click OK.

Step 2: Define Auto-Discovery Group Settings

Add an Auto-Discovery Group to Local Probe
✕

Set your auto-discovery preferences and provide the IP addresses/DNS names of your devices. PRTG then automatically creates devices and adds suitable sensors. If necessary, specify credentials and access rights for the auto-discovery group. All devices in this group inherit these settings by default.

PRTG Manual: Auto-Discovery

Basic Group Settings

Group Name ⓘ

Group

Tags ⓘ

Device Identification and Auto-Discovery

Auto-Discovery Level ⓘ

Standard auto-discovery (recommended)

Detailed auto-discovery

Auto-discovery with specific device templates

Schedule ⓘ

Once ▼

IP Address Selection Method ⓘ

Class C base IP address with start/end (IPv4)

List of individual IP addresses and DNS names (IPv4)

IP address and subnet (IPv4)

IP address with octet range (IPv4)

List of individual IP addresses and DNS names (IPv6)

Add Auto-Discovery Group Assistant Step 2

Basic Group Settings

Setting	Description
Group Name	Enter a meaningful name to identify the group. By default, PRTG shows this name in the device tree ¹⁸³¹ , as well as in alarms ²²⁸¹ , logs ²³⁷¹ , notifications ⁴⁰³¹ , reports ⁴⁰⁶⁹ , maps ⁴⁰⁹⁵ , libraries ⁴⁰⁴⁷ , and tickets ²⁴⁰¹ .

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited¹⁴⁵.</p> <ul style="list-style-type: none"> i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include? i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). i For performance reasons, it can take some minutes until you can filter for new tags that you added.

Device Identification and Auto-Discovery





Setting	Description
Auto-Discovery Level	<p>Select the level of detail for the auto-discovery²⁹⁶:</p> <ul style="list-style-type: none"> ▪ No auto-discovery: Select this option if you only want to manually create devices and sensors. ▪ Standard auto-discovery (recommended): Create a set of standard sensors for standard monitoring. This option works fine for most installations. ▪ Detailed auto-discovery: Create all standard sensors and additional sensors from detailed variants of device templates. As a result, you might get many sensors. This option is suitable for small network segments and whenever you want to monitor the maximum number of sensors available. ▪ Auto-discovery with specific device templates: Customize the auto-discovery and select or combine standard, detailed, and custom device templates. Select one or more templates from the Devices Templates list. <p>i Auto-discoveries can be resource intensive. They are primarily intended for devices on the same network as your probes.</p>
Device Templates	<p>This setting is only visible if you select Auto-discovery with specific device templates above. Select one or more device templates by adding a check mark in front of the template name.</p> <p>i You can also select all items or cancel the selection by using the check box in the table header.</p>

Setting	Description
	<p>PRTG uses the device templates that you select for the auto-discovery on the device. Choose from:</p>
	<ul style="list-style-type: none">▪ ADSL▪ Amazon CloudWatch▪ Buffalo TeraStation NAS▪ Cisco ASA VPN▪ Cisco Device (Generic)▪ Dell EqualLogic▪ Dell MDi Disk▪ DNS Server▪ Environment Jakarta▪ Environment Poseidon▪ FTP Server▪ Generic Device (Ping Only)▪ Generic Device (SNMP Enabled)▪ Generic Device (SNMP Enabled, Detailed)▪ HTTP Web Server▪ Hyper-V Host Server▪ IPMI-enabled Device▪ Juniper NS Device▪ Linux/UNIX Device (SNMP or SSH Enabled)▪ Mail Server (Generic)▪ Mail Server (MS Exchange)▪ Microsoft SharePoint 2010▪ NAS LenovoEMC▪ NAS QNAP▪ NAS Synology▪ NetApp▪ NTP Server▪ Printer (HP)▪ Printer (Generic)▪ RDP Server


Setting	Description
	<ul style="list-style-type: none"> ▪ RMON-compatible Device ▪ Server (Cisco UCS) ▪ Server (Compaq/HP Agents) ▪ Server (Dell) ▪ Server (Fujitsu) ▪ Server (IBM) ▪ SonicWall ▪ SSL Security Check ▪ Switch (Cisco Catalyst) ▪ Switch (Cisco IOS Based) ▪ Switch (HP Procurve) ▪ UNIX/Linux Device ▪ UPS Health (APC) ▪ UPS Health (Generic) ▪ UPS Health (Liebert) ▪ VMware ESXi / vCenter Server ▪ Web Server ▪ Windows (Detailed via WMI) ▪ Windows (via Remote PowerShell) ▪ Windows (via WMI) ▪ Windows IIS (via SNMP) ▪ XenServer Hosts ▪ XenServer Virtual Machines
	<p>Once the auto-discovery is finished, PRTG creates a new ticket^[240] and lists the device templates that it used to create new sensors.</p>
Schedule	<p>Select when PRTG runs the auto-discovery:</p> <ul style="list-style-type: none"> ▪ Once: Run the auto-discovery only once. PRTG adds new devices and sensors once. If you select this option, you have to manually start the auto-discovery^[297]. ▪ Hourly: Run the auto-discovery for new devices and sensors every 60 minutes. <ul style="list-style-type: none"> i Use this option with caution. Frequent auto-discoveries might cause performance issues, in particular when PRTG scans large network segments every hour.

Setting	Description
	<ul style="list-style-type: none"> ▪ Daily: Run the auto-discovery for new devices and sensors every 24 hours. The first auto-discovery runs immediately. All other discoveries start at the time that you define in the Monitoring settings, section Auto-Discovery. ▪ Weekly: Run the auto-discovery for new devices and sensors every 7 days. The first auto-discovery runs immediately. All other discoveries start at the time that you define in the Monitoring settings, section Auto-Discovery. <p>i For performance reasons, PRTG sets Schedule to Once on all devices that the scheduled auto-discovery creates.</p>
<p>IP Address Selection Method</p>	<p>Select how you want to define the IP address range for the auto-discovery:</p> <ul style="list-style-type: none"> ▪ Class C base IP address with start/end (IPv4): Enter an IPv4 class C address range. ▪ List of individual IP addresses and DNS names (IPv4): Enter a list of individual IPv4 addresses or Domain Name System (DNS) names. ▪ IP address and subnet (IPv4): Enter an IPv4 address and subnet mask. ▪ IP address with octet range (IPv4): Enter an IPv4 address range for every IP octet individually. With this, you can define very customizable IP address ranges. ▪ List of individual IP addresses and DNS names (IPv6): Enter a list of individual IPv6 addresses or DNS names. ▪ Use computers from the Active Directory (maximum 1000 computers): Search in the Active Directory for computers to perform the auto-discovery. <p>i Make sure that you specify your Active Directory domain in the Core & Probes settings.</p> <p>i PRTG can only discover subnets with up to 65,536 IP addresses. If you define a range with a higher number of addresses, the discovery stops before it is completed.</p>
<p>IPv4 Base</p>	<p>This setting is only visible if you enable Class C base IP address with start/end (IPv4) above. Enter a class C network as the IP base for the auto-discovery. Enter the first three octets of an IPv4 address, for example, 192.168.0.</p>
<p>IPv4 Range Start</p>	<p>This setting is only visible if you enable Class C base IP address with start/end (IPv4) above. Enter the IP octet of the class C network (specified above) from which PRTG starts the auto-discovery. This completes the IP base to an IPv4 address. For example, enter 1 to discover from 192.168.0.1 onwards.</p>

Setting	Description
IPv4 Range End	This setting is only visible if you enable Class C base IP address with start/end (IPv4) above. Enter the IP octet of the class C network (specified above) at which PRTG stops the auto-discovery. This completes the IP base to an IPv4 address. For example, enter 254 to discover up to 192.168.0.254 .
IPv4/DNS Name List IPv6/DNS Name List	This setting is only visible if you select on of the List of individual IP addresses and DNS names options above. Enter a list of IP addresses or DNS names that the auto-discovery scans. Enter each address on a separate line.
IPv4 and Subnet (IPv4)	This setting is only visible if you enable IP address and subnet (IPv4) above. Enter an expression in the format address/subnet, for example, 192.168.3.0/255.255.255.0 . You can also use the short form like 192.168.3.0/24 . PRTG scans the complete host range (without network and broadcast address) that is defined by the IP address and the subnet mask.
IP Address with Octet Range	This setting is only visible if you enable IP address with octet range (IPv4) above. Enter an expression in the format a1.a2.a3.a4, where a1 , a2 , a3 , and a4 are each a number between 0-255, or a range with two numbers and a hyphen like 1-127 . PRTG calculates all permutations of all ranges. For example, 10.0.1-10.1-100 results in 1,000 addresses that PRTG scans during the auto-discovery.
Organizational Unit	<p>This setting is only visible if you enable Use computers from the Active Directory (maximum 1000 computers) above. Enter an organizational unit (OU) to restrict the Active Directory search to computers that are part of this OU. For top-level OUs, use the distinguished name (DN) format without OU= and without the domain components (DCS). If you leave this field empty, there are not any restrictions.</p> <p>Example:</p> <ul style="list-style-type: none"> For the DN OU=Domain Controllers,DC=example,DC=com, enter only Domain Controllers. <p>If you have sub-OUs, use the DN format without the leading OU= and without the DCs.</p> <p>Examples:</p> <ul style="list-style-type: none"> For the DN OU=webserver,OU=production,DC=example,DC=com, enter only webserver,OU=production. For the DN OU=intranet,OU=webserver,OU=production,DC=example,DC=com, enter only intranet,OU=webserver,OU=production. <p>i Make sure that the OU contains computer accounts. If the OU is empty, you receive an error message.</p>

Setting	Description
	<p> Do not enter the domain components. PRTG automatically uses the domain components from the domain name you enter in the Core & Probes settings.</p>
Name Resolution	<p>Select how to monitor newly discovered devices. This only affects new devices. This does not change the setting for other devices. Depending on your selection, the IP Address/DNS Name field of an added device shows the DNS name or IP address that PRTG uses to access the target device. Choose between:</p> <ul style="list-style-type: none"> ▪ Use DNS names (recommended): Monitor newly discovered devices via their DNS names (if available). We recommend that you use this option. ▪ Use IP addresses: Monitor newly discovered devices via their IP addresses. <p> This setting does not affect how PRTG shows the devices in the device tree.</p>
Device Rescan	<p>Select how to handle known devices:</p> <ul style="list-style-type: none"> ▪ Skip auto-discovery for existing devices/IP addresses (recommended): Do not rescan existing devices or IP addresses. PRTG only adds devices with new IP addresses or DNS names. PRTG does not add devices that already exist in your configuration for example, in other groups. We recommend that you use this option. ▪ Perform auto-discovery for existing devices/IP addresses: Rescan devices that have existing IP addresses with every auto-discovery. PRTG adds devices that already exist in other groups to this group and runs the auto-discovery on the newly added devices. <ul style="list-style-type: none">  The auto-discovery does not run on devices that already exist in the group. If you want to run the auto-discovery for these devices, you have to manually start the auto-discovery on them. <p> In certain cases, the IP resolution might not work and might result in PRTG not adding a device if it has the same local IP address as it does in a different LAN.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#).




Credentials for Windows Systems

Click  to interrupt the [inheritance](#).

Setting	Description
Domain or Computer Name	<p>Enter the domain or computer name of the user account with which you want to access the Windows system. PRTG uses this account for Windows Management Instrumentation (WMI) sensors and other Windows sensors.</p> <p>If you want to use a Windows local user account on the target device, enter the computer name. If you want to use a Windows domain user account (recommended), enter the domain name. PRTG automatically adds a prefix to use the NT LAN Manager (NTLM) protocol if you do not explicitly define it. Do not leave this field empty.</p>
User Name	Enter the user name for access to the Windows system. Usually, you use credentials with administrator rights.
Password	Enter the password for access to the Windows system. Usually, you use credentials with administrator rights.

Credentials for Linux/Solaris/Mac OS (SSH/WBEM) Systems

Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
User Name	Enter the user name for access to the Linux/Solaris/macOS system via Secure Shell (SSH) and Web-based Enterprise Management (WBEM). Usually, you use credentials with administrator rights.
Authentication Method	<p>Select the authentication method for login:</p> <ul style="list-style-type: none"> ▪ Password: Provide the password for the login. ▪ Private key: Provide an RSA private key for authentication. <p> PRTG can only handle keys in the OpenSSH format that are not encrypted. You cannot use password-protected keys.</p> <p> PRTG only supports RSA keys. It does not support DSA keys.</p> <p> For details, see section Monitoring via SSH⁴³⁰¹.</p>
Password	This setting is only visible if you select Password above. Enter a password for access to the Linux/Solaris/macOS system via SSH and WBEM. Usually, you use credentials with administrator rights.
Private Key	This setting is only visible if you select Private key above. Paste the entire RSA private key, including the BEGIN and END lines. Make sure that a corresponding public key exists on the target device.

Setting	Description
	<ul style="list-style-type: none"> ❗ PRTG can only handle keys in the OpenSSH format that are not encrypted. You cannot use password-protected keys. ❗ PRTG only supports RSA keys. It does not support DSA keys. ■ For details, see section Monitoring via SSH⁴³⁰¹. ❗ If you do not insert a private key for the first time but if you want to change the private key, you need to restart the PRTG core server service⁴²²⁵ for the private key change to take effect.
WBEM Protocol	<p>Select the protocol that you want to use for the connection to the system via WBEM:</p> <ul style="list-style-type: none"> ▪ HTTP: Use an unsecure connection for WBEM. ▪ HTTPS (default): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection for WBEM. <p>❗ This setting is only relevant if you use WBEM sensors.</p>
WBEM Port	<p>Select if you want to use one of the default ports for the connection to the system via WBEM or if you want to set a custom port:</p> <ul style="list-style-type: none"> ▪ Default: Use one of the default ports. The default port for unsecure connections is 5988 and the default port for secure connections is 5989. ▪ Custom: Use a custom port. <p>❗ This setting is only relevant if you use WBEM sensors.</p>
Custom WBEM Port	<p>This setting is only visible if you select Custom above. Enter a custom WBEM port. Enter an integer value.</p>
SSH Port	<p>Enter the port for SSH connections. Enter an integer value. The default port is 22.</p> <p>❗ By default, PRTG automatically uses this setting for all SSH sensors⁴⁶¹² unless you define a different port number in the sensor settings.</p>
SSH Rights Elevation	<p>Select the rights that you want to use to run the command on the target system:</p> <ul style="list-style-type: none"> ▪ Run the command as the connecting user (default): Use the rights of the user who establishes the SSH connection. ▪ Run the command as a different user using 'sudo' (with password): Use the rights of a different user with a password required for sudo to run commands on the target system, for example, as a root user. ▪ Run the command as a different user using 'sudo' (without password): Use the rights of a different user without a password required for sudo to run commands on the target system, for example, as a root user.

Setting	Description
	<ul style="list-style-type: none"> Run the command as a different user using 'su': Use the rights of a different user with su to run commands on the target system.
Target User Name	This setting is only visible if you select an option that includes sudo or su above. Enter a user name to run the specified command on the target system as a different user than the root user. If you leave this field empty, you run the command as a root user. Make sure that you set the Linux password even if you use a public key or a private key for authentication. This is not necessary if the user is allowed to run the command without a password.
Password	This setting is only visible if you select an option that includes sudo or su with password above. Enter the password to run the sudo command or the su command.
SSH Connection Mode	<p>Select the connection mode that you want to use to access data with SSH sensors ⁴³⁰¹:</p> <ul style="list-style-type: none"> Default (recommended): This is the default monitoring method for SSH sensors. It provides the best performance and security. Compatibility mode (deprecated): Use this mode only if the default mode does not work on the target system. The compatibility mode is the SSH engine that PRTG used in previous versions and it is deprecated. <p>i We strongly recommend that you use the default SSH connection mode.</p> <p>i You can also individually select the SSH connection mode for each SSH sensor in the sensor settings.</p>

Credentials for VMware/XenServer



Click  to interrupt the [inheritance](#) ¹⁴².

Setting	Description
User Name	Enter the user name for access to VMware ESXi, vCenter Server, or Citrix XenServer. Usually, you use credentials with administrator rights.
Password	<p>Enter the password for access to VMware ESXi, vCenter Server, or Citrix XenServer. Usually, you use credentials with administrator rights.</p> <p>i Single sign-on (SSO) passwords for vSphere do not support special characters. For details, see the VMware sensors sections.</p>
VMware Protocol	Select the protocol for the connection to VMware ESXi, vCenter Server, or Citrix XenServer:



Setting	Description
	<ul style="list-style-type: none"> ▪ HTTPS (recommended): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. ▪ HTTP: Use an unsecure connection.
Session Handling	<p>Select if you want to reuse a session for VMware sensors:</p> <ul style="list-style-type: none"> ▪ Reuse a session for multiple scans (recommended): Select this option if you want a VMware sensor to reuse a single session for multiple sensor scans to query data. With this option, the sensor does not need to log in and out for each sensor scan. We recommend that you use this option because it reduces network load and log entries on the target device. This can increase performance. ▪ Create a new session for each scan: If you select this option, PRTG does not reuse a session and a VMware sensor has to log in and out for each sensor scan. This can decrease performance.

Credentials for SNMP Devices

Click  to interrupt the [inheritance](#) ¹⁴².

Setting	Description
SNMP Version	<p>Select the Simple Network Management Protocol (SNMP) version for the connection to the target SNMP device:</p> <ul style="list-style-type: none"> ▪ SNMP v1: Use SNMP v1 for the connection. SNMP v1 only offers clear-text data transmission. <ul style="list-style-type: none">  SNMP v1 does not support 64-bit counters. This might result in invalid data when you monitor traffic via SNMP. ▪ SNMP v2c (recommended): Use SNMP v2c for the connection. SNMP v2c also only offers clear-text data transmission but it supports 64-bit counters. ▪ SNMP v3: Use SNMP v3 for the connection. SNMP v3 provides secure authentication and data encryption. <ul style="list-style-type: none">  SNMP v3 has performance limitations because of the use of encryption. The main limiting factor is CPU power. Also keep in mind that SNMP v3, unlike SNMP v1 and v2c, does not scale with more CPU power. Because of this limitation, PRTG can only handle a limited number of requests per second so that you can use only a limited number of sensors using SNMP v3. If you see an increase in Interval Delay or Open Requests with the Probe Health sensor ²⁰⁸³, distribute the load over multiple probes ⁴⁶⁰³. SNMP v1 and SNMP v2c do not have this limitation.

Setting	Description
Community String	<p>This setting is only visible if you select SNMP v1 or SNMP v2c above. Enter the community string of your device. This is like a clear-text password for simple authentication.</p> <p>i We recommend that you use the default value.</p>
Authentication Method	<p>This setting is only visible if you select SNMP v3 above. Select the authentication method:</p> <ul style="list-style-type: none"> ▪ MD5: Use message-digest algorithm 5 (MD5) for authentication. ▪ SHA: Use Secure Hash Algorithm (SHA) for authentication. <p>i If you do not want to use authentication but you need SNMP v3, for example, because your device requires context, you can leave the Password field empty. In this case, PRTG uses SNMP_SEC_LEVEL_NOAUTH and it entirely deactivates authentication.</p> <p>i The authentication method you select must match the authentication method of your device.</p>
User Name	<p>This setting is only visible if you select SNMP v3 above. Enter the user name for access to the target SNMP device.</p> <p>i The user name that you enter must match the user name of your device.</p>
Password	<p>This setting is only visible if you select SNMP v3 above. Enter the password for access to the target SNMP device.</p> <p>i The password that you enter must match the password of your device.</p>
Encryption Type	<p>This setting is only visible if you select SNMP v3 above. Select an encryption type:</p> <ul style="list-style-type: none"> ▪ DES: Use Data Encryption Standard (DES) as the encryption algorithm. ▪ AES: Use Advanced Encryption Standard (AES) as the encryption algorithm. <p>i Net-SNMP does not support AES-192 and AES-256. They do not have RFC specifications.</p> <p>i The encryption type that you select must match the encryption type of your device.</p>
Encryption Key	<p>This setting is only visible if you select SNMP v3 above. Enter an encryption key. If you provide a key, PRTG encrypts SNMP data packets with the encryption algorithm that you selected above. Enter a string or leave the field empty.</p>

Setting	Description
	<p> The encryption key that you enter must match the encryption key of your device. If the encryption keys do not match, you do not get an error message.</p>
Context Name	<p>This setting is only visible if you select SNMP v3 above. Enter a context name only if the configuration of the device requires it. Context is a collection of management information that is accessible by an SNMP device. Enter a string.</p>
SNMP Port	<p>Enter the port for the connection to the SNMP target device. Enter an integer value. The default port is 161.</p> <p> We recommend that you use the default value.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p>

Credentials for Database Management Systems

Click  to interrupt the [inheritance](#)¹⁴².

The settings you define in this section apply to the following sensors:

- [ADO SQL v2 sensor](#)⁴⁹⁰
- [Microsoft SQL v2 sensor](#)¹⁶⁰⁷
- [MySQL v2 sensor](#)¹⁶⁷⁴
- [Oracle SQL v2 sensor](#)¹⁹²³
- [PostgreSQL sensor](#)²⁰⁶⁴

Setting	Description
Port	<p>Select the port that PRTG uses for connections to the monitored databases:</p> <ul style="list-style-type: none"> ▪ Default (recommended): PRTG automatically determines the type of the database and uses the corresponding default port to connect. PRTG uses the following default ports: <ul style="list-style-type: none"> ▫ Microsoft SQL: 1433 ▫ MySQL: 3306 ▫ Oracle SQL: 1521 ▫ PostgreSQL: 5432

Setting	Description
	<ul style="list-style-type: none"> Custom port for all database sensors: Select this option if your database management systems do not use the default ports. Enter a custom port for database connections below. <p>i PRTG uses this custom port for all database sensors and for connections to all your databases.</p>
Custom Port	<p>Enter a custom port for database connections. Enter an integer value.</p> <p>i PRTG uses this custom port for all database sensors and for connections to all your databases.</p>
Authentication Method	<p>Select the authentication method for the connection to the Structured Query Language (SQL) database:</p> <ul style="list-style-type: none"> Windows authentication with impersonation: PRTG uses the Windows credentials that you define in settings that are higher in the object hierarchy¹³⁸, for example, in the settings of the parent device; for the database connection. i The user whose credentials PRTG uses needs to have permission to log in to the probe system with a database sensor. This is necessary for the impersonation. SQL server authentication: Use explicit credentials for database connections. Enter a user name and password below.
User Name	<p>This setting is only visible if you select SQL server authentication above. Enter the user name for the database connection.</p>
Password	<p>This setting is only visible if you select SQL server authentication above. Enter the password for the database connection.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p>

Credentials for AWS

Click  to interrupt the [inheritance](#)¹⁴².

■ For more information about the permissions that are necessary to query the AWS API, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)

Setting	Description
Access Key	Enter the Amazon Web Services (AWS) access key.

Setting	Description
Secret Key	Enter the AWS secret key.


Credentials for Dell EMC


Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
User	Enter the user name for access to the Dell EMC system.
Password	Enter the password for access to the Dell EMC system.
Port	Enter the port for the connection to the Dell EMC system. The default port for secure connections is 443 .


Credentials for Microsoft 365


 The [Microsoft 365 Service Status sensor](#)¹⁵⁴⁶ and the [Microsoft 365 Service Status Advanced sensor](#)¹⁵⁵⁷ use the following credentials to authenticate with Azure Active Directory (Azure AD).


 For more information about the credentials and the permissions that are necessary to use the Microsoft 365 sensors, see the Knowledge Base: [How do I obtain credentials and set permissions for the Microsoft 365 sensors?](#)

Setting	Description
Tenant ID	Enter the Azure AD tenant ID.  A tenant ID must be a 32-digit sequence in hexadecimal notation.
Client ID	Enter the Azure AD client ID.
Client Secret	Enter the Azure AD client secret.

Credentials for Microsoft Azure

 The [Microsoft Azure Subscription Cost sensor](#)¹⁵⁶⁰ and the [Microsoft Azure Virtual Machine sensor](#)¹⁵⁸² use the following credentials to authenticate with Azure AD.




 For more information about the credentials and permissions that are necessary use the Microsoft Azure sensors, see the Knowledge Base: [How do I obtain credentials and create custom roles for the Microsoft Azure sensors?](#)

Setting	Description
Tenant ID	Enter the Azure AD tenant ID.  A tenant ID must be a 32-digit sequence in hexadecimal notation.
Client ID	Enter the Azure AD client ID.
Client Secret	Enter the Azure AD client secret.
Subscription ID	Enter the Azure AD subscription ID.

Credentials for MQTT

Click  to interrupt the [inheritance](#)¹⁴².




Setting	Description
Authentication Method	Select if you want to connect without credentials or define credentials for access to the MQTT broker. <ul style="list-style-type: none"> None (default): Connect without credentials. User name and password: Define credentials for the connection.
User	This setting is only visible if you select User name and password above. Enter the user name for access to the Message Queue Telemetry Transport (MQTT) broker.
Password	This setting is only visible if you select User name and password above. Enter the password for access to the MQTT broker.
Port	Enter the port for the connection to the MQTT broker. The default port for secure connections is 8883 and the default port for unsecure connections is 1883 .
Transport-Level Security	Select if you want to use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection: <ul style="list-style-type: none"> Do not use transport-level security: Establish the connection without connection security. Use transport-level security: Establish the connection with the strongest SSL/TLS method that the target device provides.
Server Authentication	This setting is only visible if you select Use transport-level-security above. Select if you want to use a certificate for server authentication. <ul style="list-style-type: none"> Disable (default): Do not use a certificate for server authentication.

Setting	Description
	<ul style="list-style-type: none"> ▪ Enable: Use a certificate for server authentication.
CA Certificate	<p>Paste the certificate authority (CA) certificate for the verification of the MQTT broker.</p> <p> The certificate must be in Privacy-Enhanced Mail (PEM) format.</p>
Client Authentication	<p>This setting is only visible if you select Use transport-level-security above. Select if you want to use a certificate for client authentication.</p> <ul style="list-style-type: none"> ▪ Disable (default): Do not use a certificate for client authentication. ▪ Enable: Use a certificate for client authentication.
Client Certificate	<p>Paste the certificate that you created for authenticating the sensor against the MQTT broker.</p> <p> The certificate must be in PEM format.</p>
Client Key	<p>Enter the client key for access to the MQTT broker.</p> <p> The client key must be in PEM format and it must be encrypted using the Client Key Password.</p>
Client Key Password	<p>Enter the password for the client key.</p>

Credentials for OPC UA

Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
Port	<p>Enter the port for the connection to the OPC Unified Architecture (OPC UA) server. The default port for secure connections is 4840.</p>
Server Path	<p>Enter the path of the OPC UA server endpoint if you run more than one server under the same IP address or DNS name.</p>
Security Mode	<p>Select if you want to use encryption:</p> <ul style="list-style-type: none"> ▪ None (default): Do not use encryption. ▪ Sign: Sign messages between the sensor and the OPC UA server. ▪ Sign & Encrypt: Sign and encrypt messages between the sensor and the OPC UA server.

Setting	Description
Security Policy	<p>This setting is only visible if you select Sign or Sign & Encrypt above. Select if you want to use a security policy and define which policy you want to use:</p> <ul style="list-style-type: none"> ▪ None (default): Do not use a security policy. ▪ Basic256Sha256: Use the Basic256Sha256 security policy. ▪ Basic256: Use the Basic256 security policy.
Client Certificate	<p>Paste the certificate that you created for authenticating the sensor against the OPC UA server.</p> <p> The certificate must meet the following requirements:</p> <ul style="list-style-type: none"> ▪ The key size must be 2048-bit. ▪ The secure hash algorithm must be SHA256. ▪ DataEncipherment must be part of the KeyUsage certificate extension. ▪ A uniform resource indicator (URI) must be set in subjectAltName. ▪ The certificate must be in Privacy-Enhanced Mail (PEM) format.
Client Key	<p>Enter the client key for access to the OPC UA server.</p> <p> The client key must be in PEM format and it must be encrypted using the Client Key Password.</p>
Client Key Password	<p>Enter the password for the client key.</p>
Authentication Method	<p>Select if you want to connect without credentials or define credentials for access to the OPC UA server:</p> <ul style="list-style-type: none"> ▪ Anonymous (default): Connect without credentials. ▪ Username/Password: Define credentials for the connection. <p> Most OPC UA servers do not support Username/Password authentication without a client certificate. To use Username/Password authentication, select Sign or Sign & Encrypt under Security Mode and Basic256Sha256 or Basic256 under Security Policy and enter the Client Certificate, Client Key, and Client Key Password that you want to use.</p>
User	<p>This setting is only visible if you select Username/Password above. Enter the user name for access to the OPC UA server.</p>
Password	<p>This setting is only visible if you select Username/Password above. Enter the password for access to the OPC UA server.</p>

Credentials for Soffico Orchestra

Click  to interrupt the [inheritance](#) .

Setting	Description
Authentication Method	Select if you want to connect without credentials or define credentials for access to the Orchestra platform: <ul style="list-style-type: none"> ▪ None (default): Connect without credentials. ▪ Username/Password: Define credentials for the connection.
User	This setting is only visible if you select Username/Password above. Enter the user name for access to the Orchestra platform.
Password	This setting is only visible if you select Username/Password above. Enter the password for access to the Orchestra platform.
Timeout (Sec.)	Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).
Port	Enter the port for the connection to the Orchestra platform. The default port for secure connections is 8443 and the default port for unsecure connections is 8019.
Protocol	Select the protocol that you want to use for the connection to the Orchestra platform: <ul style="list-style-type: none"> ▪ HTTPS (default): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. ▪ HTTP: Use an unsecure connection.

Credentials for Veeam

Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
User	Enter the user name for access to the Veeam Backup Enterprise Manager.
Password	Enter the password for access to the Veeam Backup Enterprise Manager.
Port	Enter the port for the connection to the Veeam Backup Enterprise Manager. The default port for secure connections is 9398.

Access Rights

Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
User Group Access	<p>Select the user groups ⁴²¹⁹ that have access to the object. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the object. The object neither shows up in lists nor in the device tree. <ul style="list-style-type: none"> ⓘ There is one exception: If a user in this user group has access to a child object, the parent object is visible in the device tree but users in this user group cannot access it. ▪ Read access: Users in this group can see the object and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the object, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the object, view its monitoring results, edit its settings, and edit its access rights settings. <p>To automatically set all child objects to inherit this object's access rights, enable the Revert children's access rights to inherited option.</p> <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

ⓘ Click OK to save your settings. If you close the dialog without saving, all changes to the settings are lost.

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>

How do I obtain credentials and set permissions for the Microsoft 365 sensors?

- <https://kb.paessler.com/en/topic/88462>




How do I obtain credentials and create custom roles for the Microsoft Azure sensors?

- <https://kb.paessler.com/en/topic/88625>


Create Objects Manually

- [Add an Auto-Discovery Group](#) ³⁰⁰


Part 7: Device and Sensor Setup | 2 Create Objects Manually
1 Add an Auto-Discovery Group

- [Add a Group](#)  323
- [Add a Device](#)  340
- [Add a Sensor](#)  361

7.2.2 Add a Group


 This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

There are several ways to manually add a group:

- Select Devices | Add Group from the [main menu bar](#)^[279]. A dialog appears that guides you through the process of adding a new group.
- Hover over  and select Add Group from the menu.
- Select Add Group from the [context menu](#)^[259] of the probe or group to which you want to add the new group. This skips step 1 and leads you directly to [step 2](#)^[325].

Add a Group

The Add a Group dialog appears when you add a new group to a parent group. It only shows the settings that are required to create the group. Therefore, you do not see all settings in this dialog.

 You can change all settings on the Settings tab of the group later. For more information, see section [Group Settings](#)^[413].

Step 1: Select a Parent

Add a Group ✕

Select a Parent

Select a parent object for the group.

PRTG Manual: Add a Group

Add a New Group

Organize your network devices in PRTG using **groups**. You can create as many groups and subgroups as you like.

If you want to automate the monitoring setup for a group of network devices, add an **auto-discovery group** to your group or probe. To do so, use the context menu of groups or probes or select **Devices | Add Auto-Discovery Group** from the main menu bar.

Select a Probe or Group to Add the New Group to

Select a probe or group from the list. You can create new groups faster by right-clicking a probe or group in the device tree and selecting **Add Group** from the context menu.

Search...

- Root
 - Local Probe
 - 1st group
 - MAIL
 - Group
 - ROUTER/SWITCHES
 - VMWARE
 - SNMP
 - Servers
 - DATABASES
 - MISC
 - CLOUD
 - Services
 - WINDOWS

Cancel **OK**

Add Group Assistant Step 1

Select the probe or group that you want to add the new group to. Click OK.

Step 2: Define Group Settings

Add a Group to Local Probe
✕

Define Group Settings

Specify credentials and access rights for your group, if necessary. All devices in this group will inherit these settings.

PRTG Manual: Add a Group

Add a New Group

Organize your network devices in PRTG using **groups**. You can create as many groups and subgroups as you like.

If you want to automate the monitoring setup for a group of network devices, add an **auto-discovery group** to your group or probe. To do so, use the context menu of groups or probes or select **Devices | Add Auto-Discovery Group** from the main menu bar.

Basic Group Settings

Group Name ⓘ

Group

Tags ⓘ

Credentials for Windows Systems

inherit from (Domain or Computer Name: paesslergmbh, User: ...)

Credentials for Linux/Solaris/Mac OS (SSH/WBEM) Systems

inherit from (User: <empty>, Login: 0, For WBEM Use Port: 0...)



Credentials for VMware/XenServer

inherit from (User: <empty>)


Add Group Assistant Step 2

Basic Group Settings

Setting	Description
Group Name	Enter a meaningful name to identify the group. By default, PRTG shows this name in the device tree [183], as well as in alarms [228], logs [237], notifications [403], reports [406], maps [406], libraries [407], and tickets [240].

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ¹⁴⁵.</p> <ul style="list-style-type: none">  It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).  For performance reasons, it can take some minutes until you can filter for new tags that you added.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².









Credentials for Windows Systems

Click  to interrupt the [inheritance](#) ¹⁴².



Setting	Description
Domain or Computer Name	<p>Enter the domain or computer name of the user account with which you want to access the Windows system. PRTG uses this account for Windows Management Instrumentation (WMI) sensors and other Windows sensors.</p> <p>If you want to use a Windows local user account on the target device, enter the computer name. If you want to use a Windows domain user account (recommended), enter the domain name. PRTG automatically adds a prefix to use the NT LAN Manager (NTLM) protocol if you do not explicitly define it. Do not leave this field empty.</p>
User Name	Enter the user name for access to the Windows system. Usually, you use credentials with administrator rights.
Password	Enter the password for access to the Windows system. Usually, you use credentials with administrator rights.

Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems

Click  to interrupt the [inheritance](#)¹⁴².


Setting	Description
User Name	Enter the user name for access to the Linux/Solaris/macOS system via Secure Shell (SSH) and Web-based Enterprise Management (WBEM). Usually, you use credentials with administrator rights.
Authentication Method	<p>Select the authentication method for login:</p> <ul style="list-style-type: none"> ▪ Password: Provide the password for the login. ▪ Private key: Provide an RSA private key for authentication. <p> PRTG can only handle keys in the OpenSSH format that are not encrypted. You cannot use password-protected keys.</p> <p> PRTG only supports RSA keys. It does not support DSA keys.</p> <p> For details, see section Monitoring via SSH⁴³⁰¹.</p>
Password	This setting is only visible if you select Password above. Enter a password for access to the Linux/Solaris/macOS system via SSH and WBEM. Usually, you use credentials with administrator rights.
Private Key	<p>This setting is only visible if you select Private key above. Paste the entire RSA private key, including the BEGIN and END lines. Make sure that a corresponding public key exists on the target device.</p> <p> PRTG can only handle keys in the OpenSSH format that are not encrypted. You cannot use password-protected keys.</p> <p> PRTG only supports RSA keys. It does not support DSA keys.</p> <p> For details, see section Monitoring via SSH⁴³⁰¹.</p> <p> If you do not insert a private key for the first time but if you want to change the private key, you need to restart the PRTG core server service⁴²²⁵ for the private key change to take effect.</p>
WBEM Protocol	<p>Select the protocol that you want to use for the connection to the system via WBEM:</p> <ul style="list-style-type: none"> ▪ HTTP: Use an unsecure connection for WBEM. ▪ HTTPS (default): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection for WBEM. <p> This setting is only relevant if you use WBEM sensors.</p>
WBEM Port	Select if you want to use one of the default ports for the connection to the system via WBEM or if you want to set a custom port:

Setting	Description
	<ul style="list-style-type: none"> ▪ Default: Use one of the default ports. The default port for unsecure connections is 5988 and the default port for secure connections is 5989. ▪ Custom: Use a custom port. <p>i This setting is only relevant if you use WBEM sensors.</p>
Custom WBEM Port	This setting is only visible if you select Custom above. Enter a custom WBEM port. Enter an integer value.
SSH Port	Enter the port for SSH connections. Enter an integer value. The default port is 22 . i By default, PRTG automatically uses this setting for all SSH sensors unless you define a different port number in the sensor settings.
SSH Rights Elevation	Select the rights that you want to use to run the command on the target system: <ul style="list-style-type: none"> ▪ Run the command as the connecting user (default): Use the rights of the user who establishes the SSH connection. ▪ Run the command as a different user using 'sudo' (with password): Use the rights of a different user with a password required for sudo to run commands on the target system, for example, as a root user. ▪ Run the command as a different user using 'sudo' (without password): Use the rights of a different user without a password required for sudo to run commands on the target system, for example, as a root user. ▪ Run the command as a different user using 'su': Use the rights of a different user with su to run commands on the target system.
Target User Name	This setting is only visible if you select an option that includes sudo or su above. Enter a user name to run the specified command on the target system as a different user than the root user. If you leave this field empty, you run the command as a root user. Make sure that you set the Linux password even if you use a public key or a private key for authentication. This is not necessary if the user is allowed to run the command without a password.
Password	This setting is only visible if you select an option that includes sudo or su with password above. Enter the password to run the sudo command or the su command.
SSH Connection Mode	Select the connection mode that you want to use to access data with SSH sensors . <ul style="list-style-type: none"> ▪ Default (recommended): This is the default monitoring method for SSH sensors. It provides the best performance and security.

Setting	Description
	<ul style="list-style-type: none"> Compatibility mode (deprecated): Use this mode only if the default mode does not work on the target system. The compatibility mode is the SSH engine that PRTG used in previous versions and it is deprecated. <p> We strongly recommend that you use the default SSH connection mode.</p> <p> You can also individually select the SSH connection mode for each SSH sensor in the sensor settings.</p>

Credentials for VMware/XenServer






Click  to interrupt the [inheritance](#) ¹⁴².

Setting	Description
User Name	Enter the user name for access to VMware ESXi, vCenter Server, or Citrix XenServer. Usually, you use credentials with administrator rights.
Password	<p>Enter the password for access to VMware ESXi, vCenter Server, or Citrix XenServer. Usually, you use credentials with administrator rights.</p> <p> Single sign-on (SSO) passwords for vSphere do not support special characters. For details, see the VMware sensors sections.</p>
VMware Protocol	<p>Select the protocol for the connection to VMware ESXi, vCenter Server, or Citrix XenServer:</p> <ul style="list-style-type: none"> HTTPS (recommended): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. HTTP: Use an unsecure connection.
Session Handling	<p>Select if you want to reuse a session for VMware sensors:</p> <ul style="list-style-type: none"> Reuse a session for multiple scans (recommended): Select this option if you want a VMware sensor to reuse a single session for multiple sensor scans to query data. With this option, the sensor does not need to log in and out for each sensor scan. We recommend that you use this option because it reduces network load and log entries on the target device. This can increase performance. Create a new session for each scan: If you select this option, PRTG does not reuse a session and a VMware sensor has to log in and out for each sensor scan. This can decrease performance.

Credentials for SNMP Devices

Click  to interrupt the [inheritance](#) ¹⁴².





Setting	Description
SNMP Version	<p>Select the Simple Network Management Protocol (SNMP) version for the connection to the target SNMP device:</p> <ul style="list-style-type: none"> ▪ SNMP v1: Use SNMP v1 for the connection. SNMP v1 only offers clear-text data transmission. <ul style="list-style-type: none"> ❗ SNMP v1 does not support 64-bit counters. This might result in invalid data when you monitor traffic via SNMP. ▪ SNMP v2c (recommended): Use SNMP v2c for the connection. SNMP v2c also only offers clear-text data transmission but it supports 64-bit counters. ▪ SNMP v3: Use SNMP v3 for the connection. SNMP v3 provides secure authentication and data encryption. <ul style="list-style-type: none"> ❗ SNMP v3 has performance limitations because of the use of encryption. The main limiting factor is CPU power. Also keep in mind that SNMP v3, unlike SNMP v1 and v2c, does not scale with more CPU power. Because of this limitation, PRTG can only handle a limited number of requests per second so that you can use only a limited number of sensors using SNMP v3. If you see an increase in Interval Delay or Open Requests with the Probe Health sensor²⁰⁸³, distribute the load over multiple probes⁴⁵⁰³. SNMP v1 and SNMP v2c do not have this limitation.
Community String	<p>This setting is only visible if you select SNMP v1 or SNMP v2c above. Enter the community string of your device. This is like a clear-text password for simple authentication.</p> <p>❗ We recommend that you use the default value.</p>
Authentication Method	<p>This setting is only visible if you select SNMP v3 above. Select the authentication method:</p> <ul style="list-style-type: none"> ▪ MD5: Use message-digest algorithm 5 (MD5) for authentication. ▪ SHA: Use Secure Hash Algorithm (SHA) for authentication. <p>❗ If you do not want to use authentication but you need SNMP v3, for example, because your device requires context, you can leave the Password field empty. In this case, PRTG uses SNMP_SEC_LEVEL_NOAUTH and it entirely deactivates authentication.</p> <p>❗ The authentication method you select must match the authentication method of your device.</p>
User Name	<p>This setting is only visible if you select SNMP v3 above. Enter the user name for access to the target SNMP device.</p> <p>❗ The user name that you enter must match the user name of your device.</p>
Password	<p>This setting is only visible if you select SNMP v3 above. Enter the password for access to the target SNMP device.</p>

Setting	Description
	<p> The password that you enter must match the password of your device.</p>
Encryption Type	<p>This setting is only visible if you select SNMP v3 above. Select an encryption type:</p> <ul style="list-style-type: none"> ▪ DES: Use Data Encryption Standard (DES) as the encryption algorithm. ▪ AES: Use Advanced Encryption Standard (AES) as the encryption algorithm. <p> Net-SNMP does not support AES-192 and AES-256. They do not have RFC specifications.</p> <p> The encryption type that you select must match the encryption type of your device.</p>
Encryption Key	<p>This setting is only visible if you select SNMP v3 above. Enter an encryption key. If you provide a key, PRTG encrypts SNMP data packets with the encryption algorithm that you selected above. Enter a string or leave the field empty.</p> <p> The encryption key that you enter must match the encryption key of your device. If the encryption keys do not match, you do not get an error message.</p>
Context Name	<p>This setting is only visible if you select SNMP v3 above. Enter a context name only if the configuration of the device requires it. Context is a collection of management information that is accessible by an SNMP device. Enter a string.</p>
SNMP Port	<p>Enter the port for the connection to the SNMP target device. Enter an integer value. The default port is 161.</p> <p> We recommend that you use the default value.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p>




Credentials for Database Management Systems

Click  to interrupt the [inheritance](#) .

The settings you define in this section apply to the following sensors:

- [ADO SQL v2 sensor](#) 
- [Microsoft SQL v2 sensor](#) 
- [MySQL v2 sensor](#) 
- [Oracle SQL v2 sensor](#) 

▪ [PostgreSQL sensor](#) 

Setting	Description
Port	<p>Select the port that PRTG uses for connections to the monitored databases:</p> <ul style="list-style-type: none"> ▪ Default (recommended): PRTG automatically determines the type of the database and uses the corresponding default port to connect. PRTG uses the following default ports: <ul style="list-style-type: none"> ▫ Microsoft SQL: 1433 ▫ MySQL: 3306 ▫ Oracle SQL: 1521 ▫ PostgreSQL: 5432 ▪ Custom port for all database sensors: Select this option if your database management systems do not use the default ports. Enter a custom port for database connections below. <p> PRTG uses this custom port for all database sensors and for connections to all your databases.</p>
Custom Port	<p>Enter a custom port for database connections. Enter an integer value.</p> <p> PRTG uses this custom port for all database sensors and for connections to all your databases.</p>
Authentication Method	<p>Select the authentication method for the connection to the Structured Query Language (SQL) database:</p> <ul style="list-style-type: none"> ▪ Windows authentication with impersonation: PRTG uses the Windows credentials that you define in settings that are higher in the object hierarchy¹³⁸, for example, in the settings of the parent device; for the database connection. <p> The user whose credentials PRTG uses needs to have permission to log in to the probe system with a database sensor. This is necessary for the impersonation.</p> <ul style="list-style-type: none"> ▪ SQL server authentication: Use explicit credentials for database connections. Enter a user name and password below.
User Name	<p>This setting is only visible if you select SQL server authentication above. Enter the user name for the database connection.</p>
Password	<p>This setting is only visible if you select SQL server authentication above. Enter the password for the database connection.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p>

Credentials for AWS

Click  to interrupt the [inheritance](#)^[142].

For more information about the permissions that are necessary to query the AWS API, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)

Setting	Description
Access Key	Enter the Amazon Web Services (AWS) access key.
Secret Key	Enter the AWS secret key.

Credentials for Dell EMC


Click  to interrupt the [inheritance](#)^[142].

Setting	Description
User	Enter the user name for access to the Dell EMC system.
Password	Enter the password for access to the Dell EMC system.
Port	Enter the port for the connection to the Dell EMC system. The default port for secure connections is 443 .

Credentials for Microsoft 365


 The [Microsoft 365 Service Status sensor](#)^[1546] and the [Microsoft 365 Service Status Advanced sensor](#)^[1557] use the following credentials to authenticate with Azure Active Directory (Azure AD).


For more information about the credentials and the permissions that are necessary to use the Microsoft 365 sensors, see the Knowledge Base: [How do I obtain credentials and set permissions for the Microsoft 365 sensors?](#)


Setting	Description
Tenant ID	Enter the Azure AD tenant ID.  A tenant ID must be a 32-digit sequence in hexadecimal notation.
Client ID	Enter the Azure AD client ID.

Setting	Description
Client Secret	Enter the Azure AD client secret.

Credentials for Microsoft Azure

 The [Microsoft Azure Subscription Cost sensor](#)¹⁵⁶⁰ and the [Microsoft Azure Virtual Machine sensor](#)¹⁵⁸² use the following credentials to authenticate with Azure AD.




 For more information about the credentials and permissions that are necessary use the Microsoft Azure sensors, see the Knowledge Base: [How do I obtain credentials and create custom roles for the Microsoft Azure sensors?](#)

Setting	Description
Tenant ID	Enter the Azure AD tenant ID.  A tenant ID must be a 32-digit sequence in hexadecimal notation.
Client ID	Enter the Azure AD client ID.
Client Secret	Enter the Azure AD client secret.
Subscription ID	Enter the Azure AD subscription ID.

Credentials for MQTT



Click  to interrupt the [inheritance](#)¹⁴².


Setting	Description
Authentication Method	Select if you want to connect without credentials or define credentials for access to the MQTT broker. <ul style="list-style-type: none"> None (default): Connect without credentials. User name and password: Define credentials for the connection.
User	This setting is only visible if you select User name and password above. Enter the user name for access to the Message Queue Telemetry Transport (MQTT) broker.
Password	This setting is only visible if you select User name and password above. Enter the password for access to the MQTT broker.

Setting	Description
Port	Enter the port for the connection to the MQTT broker. The default port for secure connections is 8883 and the default port for unsecure connections is 1883 .
Transport-Level Security	Select if you want to use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection: <ul style="list-style-type: none"> Do not use transport-level security: Establish the connection without connection security. Use transport-level security: Establish the connection with the strongest SSL/TLS method that the target device provides.
Server Authentication	This setting is only visible if you select Use transport-level-security above. Select if you want to use a certificate for server authentication. <ul style="list-style-type: none"> Disable (default): Do not use a certificate for server authentication. Enable: Use a certificate for server authentication.
CA Certificate	Paste the certificate authority (CA) certificate for the verification of the MQTT broker. <p> The certificate must be in Privacy-Enhanced Mail (PEM) format.</p>
Client Authentication	This setting is only visible if you select Use transport-level-security above. Select if you want to use a certificate for client authentication. <ul style="list-style-type: none"> Disable (default): Do not use a certificate for client authentication. Enable: Use a certificate for client authentication.
Client Certificate	Paste the certificate that you created for authenticating the sensor against the MQTT broker. <p> The certificate must be in PEM format.</p>
Client Key	Enter the client key for access to the MQTT broker. <p> The client key must be in PEM format and it must be encrypted using the Client Key Password.</p>
Client Key Password	Enter the password for the client key.

Credentials for OPC UA

Click  to interrupt the [inheritance](#) ¹⁴².

Setting	Description
Port	Enter the port for the connection to the OPC Unified Architecture (OPC UA) server. The default port for secure connections is 4840 .
Server Path	Enter the path of the OPC UA server endpoint if you run more than one server under the same IP address or DNS name.
Security Mode	Select if you want to use encryption: <ul style="list-style-type: none"> None (default): Do not use encryption. Sign: Sign messages between the sensor and the OPC UA server. Sign & Encrypt: Sign and encrypt messages between the sensor and the OPC UA server.
Security Policy	This setting is only visible if you select Sign or Sign & Encrypt above. Select if you want to use a security policy and define which policy you want to use: <ul style="list-style-type: none"> None (default): Do not use a security policy. Basic256Sha256: Use the Basic256Sha256 security policy. Basic256: Use the Basic256 security policy.
Client Certificate	Paste the certificate that you created for authenticating the sensor against the OPC UA server. <p> The certificate must meet the following requirements:</p> <ul style="list-style-type: none"> The key size must be 2048-bit. The secure hash algorithm must be SHA256. DataEncipherment must be part of the KeyUsage certificate extension. A uniform resource indicator (URI) must be set in subjectAltName. The certificate must be in Privacy-Enhanced Mail (PEM) format.
Client Key	Enter the client key for access to the OPC UA server. <p> The client key must be in PEM format and it must be encrypted using the Client Key Password.</p>
Client Key Password	Enter the password for the client key.
Authentication Method	Select if you want to connect without credentials or define credentials for access to the OPC UA server: <ul style="list-style-type: none"> Anonymous (default): Connect without credentials. Username/Password: Define credentials for the connection.

Setting	Description
	<p> Most OPC UA servers do not support Username/Password authentication without a client certificate. To use Username/Password authentication, select Sign or Sign & Encrypt under Security Mode and Basic256Sha256 or Basic256 under Security Policy and enter the Client Certificate, Client Key, and Client Key Password that you want to use.</p>
User	This setting is only visible if you select Username/Password above. Enter the user name for access to the OPC UA server.
Password	This setting is only visible if you select Username/Password above. Enter the password for access to the OPC UA server.

Credentials for Soffico Orchestra

Click  to interrupt the [inheritance](#) ¹⁴².

Setting	Description
Authentication Method	<p>Select if you want to connect without credentials or define credentials for access to the Orchestra platform:</p> <ul style="list-style-type: none"> None (default): Connect without credentials. Username/Password: Define credentials for the connection.
User	This setting is only visible if you select Username/Password above. Enter the user name for access to the Orchestra platform.
Password	This setting is only visible if you select Username/Password above. Enter the password for access to the Orchestra platform.
Timeout (Sec.)	Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).
Port	Enter the port for the connection to the Orchestra platform. The default port for secure connections is 8443 and the default port for unsecure connections is 8019 .
Protocol	<p>Select the protocol that you want to use for the connection to the Orchestra platform:</p> <ul style="list-style-type: none"> HTTPS (default): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. HTTP: Use an unsecure connection.


Credentials for Veeam

Click  to interrupt the [inheritance](#)^[142].

Setting	Description
User	Enter the user name for access to the Veeam Backup Enterprise Manager.
Password	Enter the password for access to the Veeam Backup Enterprise Manager.
Port	Enter the port for the connection to the Veeam Backup Enterprise Manager. The default port for secure connections is 9398 .

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Setting	Description
User Group Access	<p>Select the user groups^[4219] that have access to the object. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the object. The object neither shows up in lists nor in the device tree. <ul style="list-style-type: none"> ⓘ There is one exception: If a user in this user group has access to a child object, the parent object is visible in the device tree but users in this user group cannot access it. ▪ Read access: Users in this group can see the object and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the object, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the object, view its monitoring results, edit its settings, and edit its access rights settings. <p>To automatically set all child objects to inherit this object's access rights, enable the Revert children's access rights to inherited option.</p> <p> For more details on access rights, see section Access Rights Management^[153].</p>

ⓘ Click OK to save your settings. If you close the dialog without saving, all changes to the settings are lost.

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>





How do I obtain credentials and set permissions for the Microsoft 365 sensors?

- <https://kb.paessler.com/en/topic/88462>


How do I obtain credentials and create custom roles for the Microsoft Azure sensors?

- <https://kb.paessler.com/en/topic/88625>


Create Objects Manually

- [Add an Auto-Discovery Group](#)  ³⁰⁰
- [Add a Group](#)  ³²³
- [Add a Device](#)  ³⁴⁰
- [Add a Sensor](#)  ³⁶¹

7.2.3 Add a Device

 This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

There are several ways to manually add a device:

- Select Devices | Add Device from the [main menu bar](#)^[279]. A dialog appears that guides you through the process of adding a new device.
- Hover over  and select Add Device from the menu.
- Select Add Device from the [context menu](#)^[262] of the group to which you want to add the new device. This skips step 1 and leads you directly to [step 2](#)^[342].

Add a Device

The Add a Device dialog appears when you add a new device to a group. It only shows the settings that are required to create the device. Therefore, you do not see all settings in this dialog.

 You can change all settings on the Settings tab of the device later. For more information, see section [Device Settings](#)^[446].

Step 1: Select a Parent

Add a Device [X]

Select a Parent

Select parent object for the device.

PRTG Manual: Add a Device

Add a New Device

In PRTG, devices have one or more sensors. Devices are organized in groups. Devices and their sensors can use various inherited settings, such as scanning intervals or credentials.

Select a Group from the List

Select a group from the list. You can create new devices faster by right-clicking a group in the device tree and selecting **Add Device** from the context menu.

Search... [Q]

- Root
 - Local Probe
 - 1st group
 - MAIL
 - Group
 - ROUTER/SWITCHES
 - VMWARE
 - SNMP
 - Servers
 - DATABASES
 - MISC
 - CLOUD
 - Services
 - WINDOWS

Cancel **OK**

Add Device Assistant Step 1

Select the group that you want to add the new device to. Click OK.

Step 2: Define Device Settings

Add Device to Group Local Probe
✕

Add a New Device

Define a device name and IP address, options for auto-discovery, and credential settings for Windows, Linux, VMware/XenServer, SNMP, and specific vendors, if necessary.

PRTG Manual: Add a Device

Device Name and Address

Device Name ⓘ

Device

IP Version ⓘ

IPv4

IPv6

IPv4 Address/DNS Name ⓘ

This field is required.

Tags ⓘ

+

Device Icon ⓘ

Cancel
OK

Add Device Assistant Step 2

Device Name and Address

Setting	Description
Device Name	Enter a meaningful name to identify the device. By default, PRTG shows this name in the device tree ^[183] , as well as in alarms ^[228] , logs ^[237] ,

Setting	Description
	<p>notifications^[4031], reports^[4030], maps^[4036], libraries^[4047], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
IP Version	<p>Select the IP protocol that PRTG uses to connect to the device:</p> <ul style="list-style-type: none"> ▪ IPv4: Use IP version 4 for all requests to the device. ▪ IPv6: Use IP version 6 for all requests to the device. <p>i The setting is valid for all sensors that you create on the device.</p>
IPv4 Address/DNS Name	<p>This setting is only visible if you select IPv4 above. Enter the IP address or Domain Name System (DNS) name for the device. Most sensors that you create on this device inherit this setting and try to connect to this address for monitoring.</p> <p>i Some sensors have their own setting for the IP address/DNS name to which they connect.</p>
IPv6 Address/DNS Name	<p>This setting is only visible if you select IPv6 above. Enter the IP address or Domain Name System (DNS) name for the device. Most sensors that you create on this device inherit this setting and try to connect to this address for monitoring.</p> <p>i Some sensors have their own setting for the IP address/DNS name to which they connect.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>
Device Icon	Select a device icon. PRTG shows it in the device tree.

Device Identification and Auto-Discovery


Setting	Description
Auto-Discovery Level	Select the level of detail for the auto-discovery ^[296] :

Setting	Description
	<ul style="list-style-type: none"> ▪ No auto-discovery: Select this option if you only want to manually create devices and sensors. ▪ Standard auto-discovery (recommended): Create a set of standard sensors for standard monitoring. This option works fine for most installations. ▪ Detailed auto-discovery: Create all standard sensors and additional sensors from detailed variants of device templates. As a result, you might get many sensors. This option is suitable for small network segments and whenever you want to monitor the maximum number of sensors available. ▪ Auto-discovery with specific device templates: Customize the auto-discovery and select or combine standard, detailed, and custom device templates. Select one or more templates from the Devices Templates list. <p>i Auto-discoveries can be resource intensive. They are primarily intended for devices on the same network as your probes.</p>
Schedule	<p>This setting is only visible if you select one of the standard, detailed, or custom auto-discovery options above. Define when the auto-discovery runs:</p> <ul style="list-style-type: none"> ▪ Once: Perform the auto-discovery only once. For existing devices, this initiates a one-time sensor update for the selected device. If you select this option, you have to start the auto-discovery manually^[297]. ▪ Hourly: Perform the auto-discovery for new sensors every 60 minutes. ▪ Daily: Perform the auto-discovery for new sensors every 24 hours. The first auto-discovery runs immediately, all other discoveries start at the time defined in the Auto-Discovery settings section under Setup | System Administration | Monitoring. ▪ Weekly: Perform the auto-discovery for new sensors every 7 days. The first auto-discovery runs immediately, all other discoveries start at the time defined in the Auto-Discovery settings section under Setup | System Administration | Monitoring.
Device Templates	<p>This setting is only visible if you select Auto-discovery with specific device templates above. Select one or more device templates by adding a check mark in front of the template name.</p> <p>i You can also select all items or cancel the selection by using the check box in the table header.</p> <p>PRTG uses the device templates that you select for the auto-discovery on the device. Choose from:</p> <ul style="list-style-type: none"> ▪ ADSL ▪ Amazon CloudWatch

Setting	Description
	<ul style="list-style-type: none">▪ Buffalo TeraStation NAS▪ Cisco ASA VPN▪ Cisco Device (Generic)▪ Dell EqualLogic▪ Dell MDi Disk▪ DNS Server▪ Environment Jakarta▪ Environment Poseidon▪ FTP Server▪ Generic Device (Ping Only)▪ Generic Device (SNMP Enabled)▪ Generic Device (SNMP Enabled, Detailed)▪ HTTP Web Server▪ Hyper-V Host Server▪ IPMI-enabled Device▪ Juniper NS Device▪ Linux/UNIX Device (SNMP or SSH Enabled)▪ Mail Server (Generic)▪ Mail Server (MS Exchange)▪ Microsoft SharePoint 2010▪ NAS LenovoEMC▪ NAS QNAP▪ NAS Synology▪ NetApp▪ NTP Server▪ Printer (HP)▪ Printer (Generic)▪ RDP Server▪ RMON-compatible Device▪ Server (Cisco UCS)▪ Server (Compaq/HP Agents)▪ Server (Dell)

Setting	Description
	<ul style="list-style-type: none"> ▪ Server (Fujitsu) ▪ Server (IBM) ▪ SonicWall ▪ SSL Security Check ▪ Switch (Cisco Catalyst) ▪ Switch (Cisco IOS Based) ▪ Switch (HP Procurve) ▪ UNIX/Linux Device ▪ UPS Health (APC) ▪ UPS Health (Generic) ▪ UPS Health (Liebert) ▪ VMware ESX / vCenter Server ▪ Web Server ▪ Windows (Detailed via WMI) ▪ Windows (via Remote PowerShell) ▪ Windows (via WMI) ▪ Windows IIS (via SNMP) ▪ XenServer Hosts ▪ XenServer Virtual Machines
	<p>Once the auto-discovery is finished, PRTG creates a new ticket^[240] and lists the device templates that it used to create new sensors.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[368] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#)^[142].




Credentials for Windows Systems








Click  to interrupt the [inheritance](#)^[142].

Setting	Description
Domain or Computer Name	<p>Enter the domain or computer name of the user account with which you want to access the Windows system. PRTG uses this account for Windows Management Instrumentation (WMI) sensors and other Windows sensors.</p> <p>If you want to use a Windows local user account on the target device, enter the computer name. If you want to use a Windows domain user account (recommended), enter the domain name. PRTG automatically adds a prefix to use the NT LAN Manager (NTLM) protocol if you do not explicitly define it. Do not leave this field empty.</p>
User Name	Enter the user name for access to the Windows system. Usually, you use credentials with administrator rights.
Password	Enter the password for access to the Windows system. Usually, you use credentials with administrator rights.

Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems

Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
User Name	Enter the user name for access to the Linux/Solaris/macOS system via Secure Shell (SSH) and Web-based Enterprise Management (WBEM). Usually, you use credentials with administrator rights.
Authentication Method	<p>Select the authentication method for login:</p> <ul style="list-style-type: none"> ▪ Password: Provide the password for the login. ▪ Private key: Provide an RSA private key for authentication. <p> PRTG can only handle keys in the OpenSSH format that are not encrypted. You cannot use password-protected keys.</p> <p> PRTG only supports RSA keys. It does not support DSA keys.</p> <p> For details, see section Monitoring via SSH⁴³⁰¹.</p>
Password	This setting is only visible if you select Password above. Enter a password for access to the Linux/Solaris/macOS system via SSH and WBEM. Usually, you use credentials with administrator rights.
Private Key	This setting is only visible if you select Private key above. Paste the entire RSA private key, including the BEGIN and END lines. Make sure that a corresponding public key exists on the target device.

Setting	Description
	<ul style="list-style-type: none">  PRTG can only handle keys in the OpenSSH format that are not encrypted. You cannot use password-protected keys.  PRTG only supports RSA keys. It does not support DSA keys.  For details, see section Monitoring via SSH.  If you do not insert a private key for the first time but if you want to change the private key, you need to restart the PRTG core server service for the private key change to take effect.
WBEM Protocol	<p>Select the protocol that you want to use for the connection to the system via WBEM:</p> <ul style="list-style-type: none"> ▪ HTTP: Use an unsecure connection for WBEM. ▪ HTTPS (default): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection for WBEM. <p> This setting is only relevant if you use WBEM sensors.</p>
WBEM Port	<p>Select if you want to use one of the default ports for the connection to the system via WBEM or if you want to set a custom port:</p> <ul style="list-style-type: none"> ▪ Default: Use one of the default ports. The default port for unsecure connections is 5988 and the default port for secure connections is 5989. ▪ Custom: Use a custom port. <p> This setting is only relevant if you use WBEM sensors.</p>
Custom WBEM Port	<p>This setting is only visible if you select Custom above. Enter a custom WBEM port. Enter an integer value.</p>
SSH Port	<p>Enter the port for SSH connections. Enter an integer value. The default port is 22.</p> <p> By default, PRTG automatically uses this setting for all SSH sensors unless you define a different port number in the sensor settings.</p>
SSH Rights Elevation	<p>Select the rights that you want to use to run the command on the target system:</p> <ul style="list-style-type: none"> ▪ Run the command as the connecting user (default): Use the rights of the user who establishes the SSH connection. ▪ Run the command as a different user using 'sudo' (with password): Use the rights of a different user with a password required for sudo to run commands on the target system, for example, as a root user. ▪ Run the command as a different user using 'sudo' (without password): Use the rights of a different user without a password required for sudo to run commands on the target system, for example, as a root user.

Setting	Description
	<ul style="list-style-type: none"> Run the command as a different user using 'su': Use the rights of a different user with su to run commands on the target system.
Target User Name	This setting is only visible if you select an option that includes sudo or su above. Enter a user name to run the specified command on the target system as a different user than the root user. If you leave this field empty, you run the command as a root user. Make sure that you set the Linux password even if you use a public key or a private key for authentication. This is not necessary if the user is allowed to run the command without a password.
Password	This setting is only visible if you select an option that includes sudo or su with password above. Enter the password to run the sudo command or the su command.
SSH Connection Mode	<p>Select the connection mode that you want to use to access data with SSH sensors ⁴³⁰¹:</p> <ul style="list-style-type: none"> Default (recommended): This is the default monitoring method for SSH sensors. It provides the best performance and security. Compatibility mode (deprecated): Use this mode only if the default mode does not work on the target system. The compatibility mode is the SSH engine that PRTG used in previous versions and it is deprecated. <p>i We strongly recommend that you use the default SSH connection mode.</p> <p>i You can also individually select the SSH connection mode for each SSH sensor in the sensor settings.</p>

Credentials for VMware/XenServer



Click  to interrupt the [inheritance](#) ¹⁴².

Setting	Description
User Name	Enter the user name for access to VMware ESXi, vCenter Server, or Citrix XenServer. Usually, you use credentials with administrator rights.
Password	<p>Enter the password for access to VMware ESXi, vCenter Server, or Citrix XenServer. Usually, you use credentials with administrator rights.</p> <p>i Single sign-on (SSO) passwords for vSphere do not support special characters. For details, see the VMware sensors sections.</p>
VMware Protocol	Select the protocol for the connection to VMware ESXi, vCenter Server, or Citrix XenServer:



Setting	Description
	<ul style="list-style-type: none"> ▪ HTTPS (recommended): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. ▪ HTTP: Use an unsecure connection.
Session Handling	<p>Select if you want to reuse a session for VMware sensors:</p> <ul style="list-style-type: none"> ▪ Reuse a session for multiple scans (recommended): Select this option if you want a VMware sensor to reuse a single session for multiple sensor scans to query data. With this option, the sensor does not need to log in and out for each sensor scan. We recommend that you use this option because it reduces network load and log entries on the target device. This can increase performance. ▪ Create a new session for each scan: If you select this option, PRTG does not reuse a session and a VMware sensor has to log in and out for each sensor scan. This can decrease performance.

Credentials for SNMP Devices

Click  to interrupt the [inheritance](#) ^[142].

Setting	Description
SNMP Version	<p>Select the Simple Network Management Protocol (SNMP) version for the connection to the target SNMP device:</p> <ul style="list-style-type: none"> ▪ SNMP v1: Use SNMP v1 for the connection. SNMP v1 only offers clear-text data transmission. <ul style="list-style-type: none">  SNMP v1 does not support 64-bit counters. This might result in invalid data when you monitor traffic via SNMP. ▪ SNMP v2c (recommended): Use SNMP v2c for the connection. SNMP v2c also only offers clear-text data transmission but it supports 64-bit counters. ▪ SNMP v3: Use SNMP v3 for the connection. SNMP v3 provides secure authentication and data encryption. <ul style="list-style-type: none">  SNMP v3 has performance limitations because of the use of encryption. The main limiting factor is CPU power. Also keep in mind that SNMP v3, unlike SNMP v1 and v2c, does not scale with more CPU power. Because of this limitation, PRTG can only handle a limited number of requests per second so that you can use only a limited number of sensors using SNMP v3. If you see an increase in Interval Delay or Open Requests with the Probe Health sensor ^[2083], distribute the load over multiple probes ^[4503]. SNMP v1 and SNMP v2c do not have this limitation.

Setting	Description
Community String	<p>This setting is only visible if you select SNMP v1 or SNMP v2c above. Enter the community string of your device. This is like a clear-text password for simple authentication.</p> <p>i We recommend that you use the default value.</p>
Authentication Method	<p>This setting is only visible if you select SNMP v3 above. Select the authentication method:</p> <ul style="list-style-type: none"> ▪ MD5: Use message-digest algorithm 5 (MD5) for authentication. ▪ SHA: Use Secure Hash Algorithm (SHA) for authentication. <p>i If you do not want to use authentication but you need SNMP v3, for example, because your device requires context, you can leave the Password field empty. In this case, PRTG uses SNMP_SEC_LEVEL_NOAUTH and it entirely deactivates authentication.</p> <p>i The authentication method you select must match the authentication method of your device.</p>
User Name	<p>This setting is only visible if you select SNMP v3 above. Enter the user name for access to the target SNMP device.</p> <p>i The user name that you enter must match the user name of your device.</p>
Password	<p>This setting is only visible if you select SNMP v3 above. Enter the password for access to the target SNMP device.</p> <p>i The password that you enter must match the password of your device.</p>
Encryption Type	<p>This setting is only visible if you select SNMP v3 above. Select an encryption type:</p> <ul style="list-style-type: none"> ▪ DES: Use Data Encryption Standard (DES) as the encryption algorithm. ▪ AES: Use Advanced Encryption Standard (AES) as the encryption algorithm. <p>i Net-SNMP does not support AES-192 and AES-256. They do not have RFC specifications.</p> <p>i The encryption type that you select must match the encryption type of your device.</p>
Encryption Key	<p>This setting is only visible if you select SNMP v3 above. Enter an encryption key. If you provide a key, PRTG encrypts SNMP data packets with the encryption algorithm that you selected above. Enter a string or leave the field empty.</p>

Setting	Description
	<p> The encryption key that you enter must match the encryption key of your device. If the encryption keys do not match, you do not get an error message.</p>
Context Name	<p>This setting is only visible if you select SNMP v3 above. Enter a context name only if the configuration of the device requires it. Context is a collection of management information that is accessible by an SNMP device. Enter a string.</p>
SNMP Port	<p>Enter the port for the connection to the SNMP target device. Enter an integer value. The default port is 161.</p> <p> We recommend that you use the default value.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p>

Credentials for Database Management Systems

Click  to interrupt the [inheritance](#)¹⁴².

The settings you define in this section apply to the following sensors:

- [ADO SQL v2 sensor](#)⁴⁹⁰
- [Microsoft SQL v2 sensor](#)¹⁶⁰⁷
- [MySQL v2 sensor](#)¹⁶⁷⁴
- [Oracle SQL v2 sensor](#)¹⁹²³
- [PostgreSQL sensor](#)²⁰⁶⁴

Setting	Description
Port	<p>Select the port that PRTG uses for connections to the monitored databases:</p> <ul style="list-style-type: none"> ▪ Default (recommended): PRTG automatically determines the type of the database and uses the corresponding default port to connect. PRTG uses the following default ports: <ul style="list-style-type: none"> ▫ Microsoft SQL: 1433 ▫ MySQL: 3306 ▫ Oracle SQL: 1521 ▫ PostgreSQL: 5432

Setting	Description
	<ul style="list-style-type: none"> Custom port for all database sensors: Select this option if your database management systems do not use the default ports. Enter a custom port for database connections below. <p>i PRTG uses this custom port for all database sensors and for connections to all your databases.</p>
Custom Port	<p>Enter a custom port for database connections. Enter an integer value.</p> <p>i PRTG uses this custom port for all database sensors and for connections to all your databases.</p>
Authentication Method	<p>Select the authentication method for the connection to the Structured Query Language (SQL) database:</p> <ul style="list-style-type: none"> Windows authentication with impersonation: PRTG uses the Windows credentials that you define in settings that are higher in the object hierarchy¹³⁸, for example, in the settings of the parent device; for the database connection. <ul style="list-style-type: none"> i The user whose credentials PRTG uses needs to have permission to log in to the probe system with a database sensor. This is necessary for the impersonation. SQL server authentication: Use explicit credentials for database connections. Enter a user name and password below.
User Name	<p>This setting is only visible if you select SQL server authentication above. Enter the user name for the database connection.</p>
Password	<p>This setting is only visible if you select SQL server authentication above. Enter the password for the database connection.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p>

Credentials for AWS

Click  to interrupt the [inheritance](#)¹⁴².

■ For more information about the permissions that are necessary to query the AWS API, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)

Setting	Description
Access Key	Enter the Amazon Web Services (AWS) access key.

Setting	Description
Secret Key	Enter the AWS secret key.


Credentials for Dell EMC


Click  to interrupt the [inheritance](#)^[142].

Setting	Description
User	Enter the user name for access to the Dell EMC system.
Password	Enter the password for access to the Dell EMC system.
Port	Enter the port for the connection to the Dell EMC system. The default port for secure connections is 443 .


Credentials for Microsoft 365


 The [Microsoft 365 Service Status sensor](#)^[1546] and the [Microsoft 365 Service Status Advanced sensor](#)^[1557] use the following credentials to authenticate with Azure Active Directory (Azure AD).


 For more information about the credentials and the permissions that are necessary to use the Microsoft 365 sensors, see the Knowledge Base: [How do I obtain credentials and set permissions for the Microsoft 365 sensors?](#)

Setting	Description
Tenant ID	Enter the Azure AD tenant ID.  A tenant ID must be a 32-digit sequence in hexadecimal notation.
Client ID	Enter the Azure AD client ID.
Client Secret	Enter the Azure AD client secret.

Credentials for Microsoft Azure

 The [Microsoft Azure Subscription Cost sensor](#)^[1560] and the [Microsoft Azure Virtual Machine sensor](#)^[1582] use the following credentials to authenticate with Azure AD.




 For more information about the credentials and permissions that are necessary use the Microsoft Azure sensors, see the Knowledge Base: [How do I obtain credentials and create custom roles for the Microsoft Azure sensors?](#)

Setting	Description
Tenant ID	Enter the Azure AD tenant ID.  A tenant ID must be a 32-digit sequence in hexadecimal notation.
Client ID	Enter the Azure AD client ID.
Client Secret	Enter the Azure AD client secret.
Subscription ID	Enter the Azure AD subscription ID.

Credentials for MQTT

Click  to interrupt the [inheritance](#)¹⁴².




Setting	Description
Authentication Method	Select if you want to connect without credentials or define credentials for access to the MQTT broker. <ul style="list-style-type: none"> None (default): Connect without credentials. User name and password: Define credentials for the connection.
User	This setting is only visible if you select User name and password above. Enter the user name for access to the Message Queue Telemetry Transport (MQTT) broker.
Password	This setting is only visible if you select User name and password above. Enter the password for access to the MQTT broker.
Port	Enter the port for the connection to the MQTT broker. The default port for secure connections is 8883 and the default port for unsecure connections is 1883 .
Transport-Level Security	Select if you want to use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection: <ul style="list-style-type: none"> Do not use transport-level security: Establish the connection without connection security. Use transport-level security: Establish the connection with the strongest SSL/TLS method that the target device provides.
Server Authentication	This setting is only visible if you select Use transport-level-security above. Select if you want to use a certificate for server authentication. <ul style="list-style-type: none"> Disable (default): Do not use a certificate for server authentication.

Setting	Description
	<ul style="list-style-type: none"> ▪ Enable: Use a certificate for server authentication.
CA Certificate	<p>Paste the certificate authority (CA) certificate for the verification of the MQTT broker.</p> <p> The certificate must be in Privacy-Enhanced Mail (PEM) format.</p>
Client Authentication	<p>This setting is only visible if you select Use transport-level-security above. Select if you want to use a certificate for client authentication.</p> <ul style="list-style-type: none"> ▪ Disable (default): Do not use a certificate for client authentication. ▪ Enable: Use a certificate for client authentication.
Client Certificate	<p>Paste the certificate that you created for authenticating the sensor against the MQTT broker.</p> <p> The certificate must be in PEM format.</p>
Client Key	<p>Enter the client key for access to the MQTT broker.</p> <p> The client key must be in PEM format and it must be encrypted using the Client Key Password.</p>
Client Key Password	<p>Enter the password for the client key.</p>

Credentials for OPC UA

Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
Port	<p>Enter the port for the connection to the OPC Unified Architecture (OPC UA) server. The default port for secure connections is 4840.</p>
Server Path	<p>Enter the path of the OPC UA server endpoint if you run more than one server under the same IP address or DNS name.</p>
Security Mode	<p>Select if you want to use encryption:</p> <ul style="list-style-type: none"> ▪ None (default): Do not use encryption. ▪ Sign: Sign messages between the sensor and the OPC UA server. ▪ Sign & Encrypt: Sign and encrypt messages between the sensor and the OPC UA server.

Setting	Description
Security Policy	<p>This setting is only visible if you select Sign or Sign & Encrypt above. Select if you want to use a security policy and define which policy you want to use:</p> <ul style="list-style-type: none"> ▪ None (default): Do not use a security policy. ▪ Basic256Sha256: Use the Basic256Sha256 security policy. ▪ Basic256: Use the Basic256 security policy.
Client Certificate	<p>Paste the certificate that you created for authenticating the sensor against the OPC UA server.</p> <p> The certificate must meet the following requirements:</p> <ul style="list-style-type: none"> ▪ The key size must be 2048-bit. ▪ The secure hash algorithm must be SHA256. ▪ DataEncipherment must be part of the KeyUsage certificate extension. ▪ A uniform resource indicator (URI) must be set in subjectAltName. ▪ The certificate must be in Privacy-Enhanced Mail (PEM) format.
Client Key	<p>Enter the client key for access to the OPC UA server.</p> <p> The client key must be in PEM format and it must be encrypted using the Client Key Password.</p>
Client Key Password	<p>Enter the password for the client key.</p>
Authentication Method	<p>Select if you want to connect without credentials or define credentials for access to the OPC UA server:</p> <ul style="list-style-type: none"> ▪ Anonymous (default): Connect without credentials. ▪ Username/Password: Define credentials for the connection. <p> Most OPC UA servers do not support Username/Password authentication without a client certificate. To use Username/Password authentication, select Sign or Sign & Encrypt under Security Mode and Basic256Sha256 or Basic256 under Security Policy and enter the Client Certificate, Client Key, and Client Key Password that you want to use.</p>
User	<p>This setting is only visible if you select Username/Password above. Enter the user name for access to the OPC UA server.</p>
Password	<p>This setting is only visible if you select Username/Password above. Enter the password for access to the OPC UA server.</p>

Credentials for Soffico Orchestra

Click  to interrupt the [inheritance](#)  ¹⁴².

Setting	Description
Authentication Method	Select if you want to connect without credentials or define credentials for access to the Orchestra platform: <ul style="list-style-type: none"> ▪ None (default): Connect without credentials. ▪ Username/Password: Define credentials for the connection.
User	This setting is only visible if you select Username/Password above. Enter the user name for access to the Orchestra platform.
Password	This setting is only visible if you select Username/Password above. Enter the password for access to the Orchestra platform.
Timeout (Sec.)	Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).
Port	Enter the port for the connection to the Orchestra platform. The default port for secure connections is 8443 and the default port for unsecure connections is 8019.
Protocol	Select the protocol that you want to use for the connection to the Orchestra platform: <ul style="list-style-type: none"> ▪ HTTPS (default): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. ▪ HTTP: Use an unsecure connection.

Credentials for Veeam

Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
User	Enter the user name for access to the Veeam Backup Enterprise Manager.
Password	Enter the password for access to the Veeam Backup Enterprise Manager.
Port	Enter the port for the connection to the Veeam Backup Enterprise Manager. The default port for secure connections is 9398.

Access Rights

Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
User Group Access	<p>Select the user groups ⁴²¹⁹ that have access to the object. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the object. The object neither shows up in lists nor in the device tree. <ul style="list-style-type: none"> ⓘ There is one exception: If a user in this user group has access to a child object, the parent object is visible in the device tree but users in this user group cannot access it. ▪ Read access: Users in this group can see the object and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the object, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the object, view its monitoring results, edit its settings, and edit its access rights settings. <p>To automatically set all child objects to inherit this object's access rights, enable the Revert children's access rights to inherited option.</p> <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

ⓘ Click OK to save your settings. If you close the dialog without saving, all changes to the settings are lost.

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>

How do I obtain credentials and set permissions for the Microsoft 365 sensors?

- <https://kb.paessler.com/en/topic/88462>




How do I obtain credentials and create custom roles for the Microsoft Azure sensors?

- <https://kb.paessler.com/en/topic/88625>

Create Objects Manually

- [Add an Auto-Discovery Group](#) ³⁰⁰


Part 7: Device and Sensor Setup | 2 Create Objects Manually
3 Add a Device

- [Add a Group](#)  323
- [Add a Device](#)  340
- [Add a Sensor](#)  361

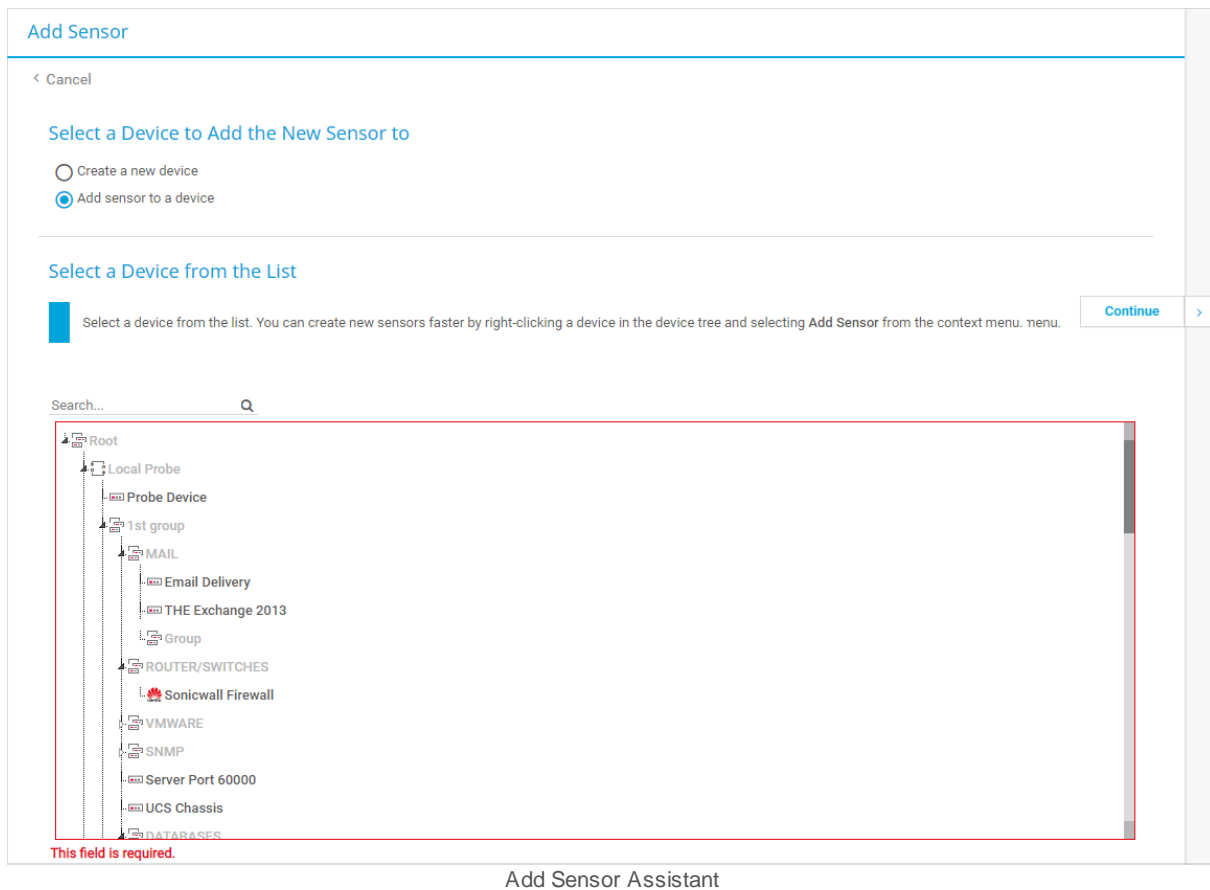
7.2.4 Add a Sensor

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

There are several ways to manually add a sensor:

- Select Sensors | Add Sensor from the [main menu bar](#)^[282]. A dialog appears that guides you through the process of adding a new sensor.
- Hover over  and select Add Sensor from the menu.
- Select Add Sensor from the [context menu](#)^[266] of a device to which you want to add the new sensor. This skips step 1 and leads you directly to [step 2](#)^[362].
- Click the Add Sensor button at the end of a device's sensor list on the device tree screen or above the geographical map on the right.

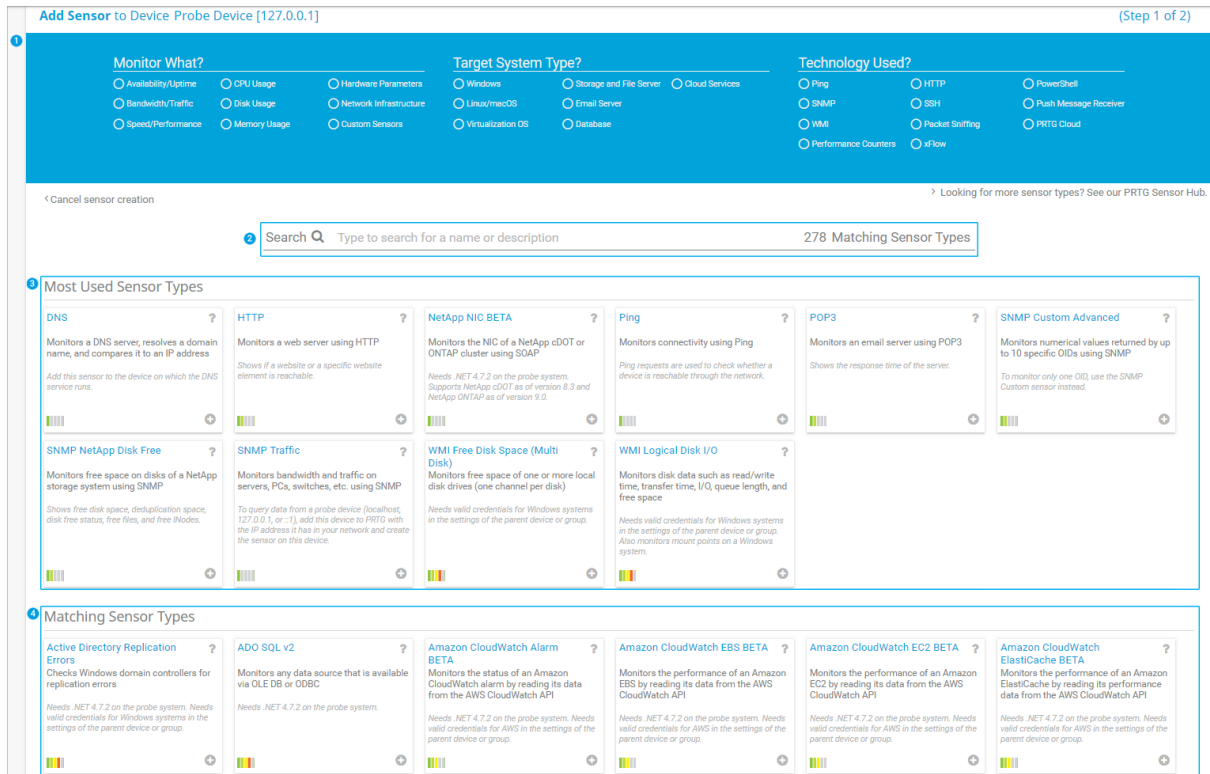
Preparation: Select a Device



- Select Add sensor to a device.
- Select the device you want to add the new sensor to.
- Click Continue.

The Add Sensor dialog appears.

Step 1: Choose Sensor



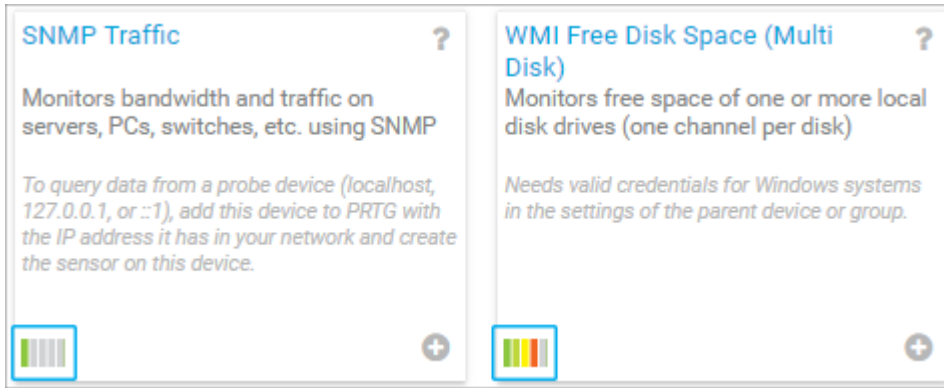
Add Sensor Dialog

In the Add Sensor dialog, you can:

- Choose appropriate criteria to filter the sensors **1**.
 - Select the type of parameter that you want to monitor via Monitor What?
 - Specify the type of target system that you want to monitor and see what sensors are available for this type of hardware via Target System Type?
 - Select the technology that you want to use for monitoring (for example SNMP or WMI) via Technology Used?
- Enter (parts of) the name into the search box **2**.
- Go through the list of the most used sensor types **3**.
 - i** PRTG suggests sensors for the selected device. This recommendation is automatically calculated based on the current user's sensor usage. It shows the ten most commonly used sensors if there are already enough sensors for the recommendation to use.
- Go through the list of all matching sensor types **4**.
 - If you cannot find a suitable sensor, search for custom sensors in our [PRTG Sensor Hub](#). To do so, click Looking for more sensor types? above the search box or below the list of sensors.
 - i** For more information, see section [List of Available Sensor Types](#) ⁴⁶¹⁵, section PRTG Sensor Hub Sensors.
- Click the sensor box to select the sensor.
- i** If you are unsure which sensor provides the information that you need, we recommend that you use the filter categories to reduce the amount of matching sensor types.

❶ Also consider whether a sensor's [performance impact](#)^[4243] is high or low. To do so, check the bar in the lower-left corner of the sensor box. For further information, see the Knowledge Base: [How can I speed up PRTG—especially for large installations?](#) (especially section 4 - Sensor Type and Monitoring).

■ For an overview list of sensors sorted by performance impact, see section [List of Sensors by Performance Impact](#)^[4672].



Sensor with Very Low Performance Impact and with High Performance Impact

■ For more information about a sensor, click [?](#) to see the section of the respective sensor. You can also go to the [List of Available Sensor Types](#)^[4581] section to find a comprehensive overview of sensors.

Step 2: Define Sensor Settings

The sensor settings dialog opens where you can define the [sensor settings](#)^[476] and create the sensor.

More

■ KNOWLEDGE BASE

How can I change the number of entries in most used sensor types?

- <https://kb.paessler.com/en/topic/59788>

How can I speed up PRTG—especially for large installations?

- <https://kb.paessler.com/en/topic/2733>

■ PAESSLER WEBSITE

You can find useful scripts for sensors in the PRTG Sensor Hub

- <https://www.paessler.com/sensor-hub>

Create Objects Manually

- [Add an Auto-Discovery Group](#)^[300]
- [Add a Group](#)^[323]
- [Add a Device](#)^[340]
- [Add a Sensor](#)^[361]

7.3 Manage Device Tree

In the device tree, click the Management tab to enter a different view of your devices and sensors. While in this view, you can move monitoring objects via drag-and-drop. You can also select objects to view and edit their settings. Any changes that you make in this view immediately take effect. To arrange objects in the tree, you have the following options.

Move or Clone a Sensor

You can change the position of a sensor on the same device or you can clone a sensor to a different device.

- On the same device, drag any sensor and drop it where you want it. The sensor moves to this position and the other sensors line up underneath it.
- Drag any sensor from a device and drop it on a different device to clone a sensor. This creates the same sensor with the same settings on the new device. The original sensor does not change.
 - ① Cloned sensors initially show the Paused [status](#)^[256] to give you the chance to change any settings before monitoring starts. Check the settings and [resume](#)^[256] monitoring.
 - ① You cannot clone **fixed** objects such as the root group, a probe device, or PRTG system-internal sensors.
 - ① To clone entire groups or devices, use the [clone object](#)^[4010] functionality in the object's [context menu](#)^[259].

Move a Group or Device

You can change the position of a group or a device via drag-and-drop.

- On the same probe or group, drag any group or device and move it up or down the device tree. A small red arrow appears that shows the future position. When you drop the group or device, it moves to this position and the other probes, groups, and devices line up underneath it.
- Drag any group or device from one probe or group and drop it on a different probe or group. A small red arrow appears that shows the future position. When you drop the group or device, it moves to the new probe or group and the other groups and devices line up underneath it. This way, you can change the probe that a group or device is part of or you can add groups or devices to other groups.
- ① You cannot move the local probe, the hosted probe, or remote probes.

Multi-Edit Object Settings




You can use multi-edit for object settings:

- Hold down the **Ctrl** key and select multiple objects of the same type, for example, multiple groups, devices, or sensors.
- In the dialog that appears, select the properties that you want to edit, change the respective settings, and click Save. The changes are applied to all selected objects.












The dialog is the same as described in section [Multi-Edit](#)^[4015].

Related Topics

For other ways to arrange objects, see

- [Arrange Objects](#)  4007
- [Create Device Template](#)  4019
- [Clone Object](#)  4010

Device and Sensor Setup

- [Auto-Discovery](#)  296
- [Create Objects Manually](#)  299
- [Manage Device Tree](#)  364
- [Root Group Settings](#)  366
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- [Additional Sensor Types \(Custom Sensors\)](#)  3972
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7.4 Root Group Settings

The root group is the highest instance in the object hierarchy and it is the parent to most other objects. Therefore, most objects inherit settings from the root group. So, before you create your own sensors, it is a good idea to review the root group's settings to make sure that they suit your needs.

i If necessary, you can override every setting for every single child object. To do so, disable the respective Inherit option of an object.

Root Group Settings

The following settings are available on the Settings tab. All of the settings that you define here can be inherited to all other objects in your setup.

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

In this section:

- [Basic Group Settings](#) ^[367]
- [Location](#) ^[367]
- [Credentials for Windows Systems](#) ^[368]
- [Credentials for Linux/Solaris/macOS \(SSH/WBEM\) Systems](#) ^[368]
- [Credentials for VMware/XenServer](#) ^[370]
- [Credentials for SNMP Devices](#) ^[371]
- [Credentials for Database Management Systems](#) ^[373]
- [Credentials for AWS](#) ^[374]
- [Windows Compatibility Options](#) ^[374]
- [SNMP Compatibility Options](#) ^[375]
- [Proxy Settings for HTTP Sensors](#) ^[379]
- [Scanning Interval](#) ^[379]
- [Schedules, Dependencies, and Maintenance Windows](#) ^[381]
- [Access Rights](#) ^[382]
- [Channel Unit Configuration](#) ^[382]
- [Advanced Network Analysis](#) ^[383]
- [More](#) ^[384]
- [Device and Sensor Setup](#)

Basic Group Settings

Setting	Description
Group Name	<p>Enter a meaningful name to identify the group. By default, PRTG displays it in the device tree^[183].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Status	<p>Select the monitoring status of the group:</p> <ul style="list-style-type: none"> Started: Monitor the group. Paused: Pause monitoring for the group. All sensors on all devices in the group are in the Paused status^[258] until you change this setting.




Location

Setting	Description
Location (for Geo Maps)	<p>If you want to use Geo Maps^[4026], enter a location in the first line. Geographical maps then display objects like devices or groups with a status icon using a color code similar to the sensor status icons^[197] (green–yellow–orange–red). You can enter a full postal address, city and country only, or latitude and longitude. It is possible to enter any text before, between, and after the coordinates, as PRTG automatically parses latitude and longitude, for example, enter 49.452778 11.077778, or enter 49.452778 any 11.077778 text.</p> <p>A minus sign (-) in the first line hides an object from a geographical map. In this case, you can enter location information in line two and following.</p> <p>You can define a specific label for each location. Enter a string denoting the label in the first line and provide the coordinates in the second line. This geographical marker then shows the object with the label in the geographical map.</p> <p>i The preview map always has a road map layout regardless of the map layout you set in User Interface^[4175].</p>

Credentials for Windows Systems

Setting	Description
Domain or Computer Name	<p>Enter the domain or computer name of the user account with which you want to access the Windows system. PRTG uses this account for Windows Management Instrumentation (WMI) sensors and other Windows sensors.</p> <p>If you want to use a Windows local user account on the target device, enter the computer name. If you want to use a Windows domain user account (recommended), enter the domain name. PRTG automatically adds a prefix to use the NT LAN Manager (NTLM) protocol if you do not explicitly define it. Do not leave this field empty.</p>
User Name	Enter the user name for access to the Windows system. Usually, you use credentials with administrator rights.
Password	Enter the password for access to the Windows system. Usually, you use credentials with administrator rights.

Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems

Setting	Description
User Name	Enter the user name for access to the Linux/Solaris/macOS system via Secure Shell (SSH) and Web-based Enterprise Management (WBEM). Usually, you use credentials with administrator rights.
Authentication Method	<p>Select the authentication method for login:</p> <ul style="list-style-type: none"> ▪ Password: Provide the password for the login. ▪ Private key: Provide an RSA private key for authentication. <p> PRTG can only handle keys in the OpenSSH format that are not encrypted. You cannot use password-protected keys.</p> <p> PRTG only supports RSA keys. It does not support DSA keys.</p> <p> For details, see section Monitoring via SSH⁴³⁰¹.</p>
Password	This setting is only visible if you select Password above. Enter a password for access to the Linux/Solaris/macOS system via SSH and WBEM. Usually, you use credentials with administrator rights.
Private Key	This setting is only visible if you select Private key above. Paste the entire RSA private key, including the BEGIN and END lines. Make sure that a corresponding public key exists on the target device.

Setting	Description
	<ul style="list-style-type: none"> ❗ PRTG can only handle keys in the OpenSSH format that are not encrypted. You cannot use password-protected keys. ❗ PRTG only supports RSA keys. It does not support DSA keys. ■ For details, see section Monitoring via SSH⁴³⁰¹. ❗ If you do not insert a private key for the first time but if you want to change the private key, you need to restart the PRTG core server service⁴²²⁵ for the private key change to take effect.
WBEM Protocol	<p>Select the protocol that you want to use for the connection to the system via WBEM:</p> <ul style="list-style-type: none"> ▪ HTTP: Use an unsecure connection for WBEM. ▪ HTTPS (default): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection for WBEM. <p>❗ This setting is only relevant if you use WBEM sensors.</p>
WBEM Port	<p>Select if you want to use one of the default ports for the connection to the system via WBEM or if you want to set a custom port:</p> <ul style="list-style-type: none"> ▪ Default: Use one of the default ports. The default port for unsecure connections is 5988 and the default port for secure connections is 5989. ▪ Custom: Use a custom port. <p>❗ This setting is only relevant if you use WBEM sensors.</p>
Custom WBEM Port	<p>This setting is only visible if you select Custom above. Enter a custom WBEM port. Enter an integer value.</p>
SSH Port	<p>Enter the port for SSH connections. Enter an integer value. The default port is 22.</p> <p>❗ By default, PRTG automatically uses this setting for all SSH sensors⁴⁶¹² unless you define a different port number in the sensor settings.</p>
SSH Rights Elevation	<p>Select the rights that you want to use to run the command on the target system:</p> <ul style="list-style-type: none"> ▪ Run the command as the connecting user (default): Use the rights of the user who establishes the SSH connection. ▪ Run the command as a different user using 'sudo' (with password): Use the rights of a different user with a password required for sudo to run commands on the target system, for example, as a root user. ▪ Run the command as a different user using 'sudo' (without password): Use the rights of a different user without a password required for sudo to run commands on the target system, for example, as a root user.

Setting	Description
	<ul style="list-style-type: none"> Run the command as a different user using 'su': Use the rights of a different user with su to run commands on the target system.
Target User Name	This setting is only visible if you select an option that includes sudo or su above. Enter a user name to run the specified command on the target system as a different user than the root user. If you leave this field empty, you run the command as a root user. Make sure that you set the Linux password even if you use a public key or a private key for authentication. This is not necessary if the user is allowed to run the command without a password.
Password	This setting is only visible if you select an option that includes sudo or su with password above. Enter the password to run the sudo command or the su command.
SSH Connection Mode	<p>Select the connection mode that you want to use to access data with SSH sensors ⁴³⁰⁷:</p> <ul style="list-style-type: none"> Default (recommended): This is the default monitoring method for SSH sensors. It provides the best performance and security. Compatibility mode (deprecated): Use this mode only if the default mode does not work on the target system. The compatibility mode is the SSH engine that PRTG used in previous versions and it is deprecated. <p>i We strongly recommend that you use the default SSH connection mode.</p> <p>i You can also individually select the SSH connection mode for each SSH sensor in the sensor settings.</p>

Credentials for VMware/XenServer

Setting	Description
User Name	Enter the user name for access to VMware ESXi, vCenter Server, or Citrix XenServer. Usually, you use credentials with administrator rights.
Password	<p>Enter the password for access to VMware ESXi, vCenter Server, or Citrix XenServer. Usually, you use credentials with administrator rights.</p> <p>i Single sign-on (SSO) passwords for vSphere do not support special characters. For details, see the VMware sensors sections.</p>
VMware Protocol	Select the protocol for the connection to VMware ESXi, vCenter Server, or Citrix XenServer:

Setting	Description
	<ul style="list-style-type: none"> ▪ HTTPS (recommended): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. ▪ HTTP: Use an unsecure connection.
Session Handling	<p>Select if you want to reuse a session for VMware sensors:</p> <ul style="list-style-type: none"> ▪ Reuse a session for multiple scans (recommended): Select this option if you want a VMware sensor to reuse a single session for multiple sensor scans to query data. With this option, the sensor does not need to log in and out for each sensor scan. We recommend that you use this option because it reduces network load and log entries on the target device. This can increase performance. ▪ Create a new session for each scan: If you select this option, PRTG does not reuse a session and a VMware sensor has to log in and out for each sensor scan. This can decrease performance.

Credentials for SNMP Devices






Setting	Description
SNMP Version	<p>Select the Simple Network Management Protocol (SNMP) version for the connection to the target SNMP device:</p> <ul style="list-style-type: none"> ▪ SNMP v1: Use SNMP v1 for the connection. SNMP v1 only offers clear-text data transmission. <ul style="list-style-type: none"> ❗ SNMP v1 does not support 64-bit counters. This might result in invalid data when you monitor traffic via SNMP. ▪ SNMP v2c (recommended): Use SNMP v2c for the connection. SNMP v2c also only offers clear-text data transmission but it supports 64-bit counters. ▪ SNMP v3: Use SNMP v3 for the connection. SNMP v3 provides secure authentication and data encryption. <ul style="list-style-type: none"> ❗ SNMP v3 has performance limitations because of the use of encryption. The main limiting factor is CPU power. Also keep in mind that SNMP v3, unlike SNMP v1 and v2c, does not scale with more CPU power. Because of this limitation, PRTG can only handle a limited number of requests per second so that you can use only a limited number of sensors using SNMP v3. If you see an increase in Interval Delay or Open Requests with the Probe Health sensor²⁰⁸³, distribute the load over multiple probes⁴⁶⁰³. SNMP v1 and SNMP v2c do not have this limitation.
Community String	<p>This setting is only visible if you select SNMP v1 or SNMP v2c above. Enter the community string of your device. This is like a clear-text password for simple authentication.</p> <p>❗ We recommend that you use the default value.</p>

Setting	Description
Authentication Method	<p>This setting is only visible if you select SNMP v3 above. Select the authentication method:</p> <ul style="list-style-type: none"> ▪ MD5: Use message-digest algorithm 5 (MD5) for authentication. ▪ SHA: Use Secure Hash Algorithm (SHA) for authentication. <p>i If you do not want to use authentication but you need SNMP v3, for example, because your device requires context, you can leave the Password field empty. In this case, PRTG uses SNMP_SEC_LEVEL_NOAUTH and it entirely deactivates authentication.</p> <p>i The authentication method you select must match the authentication method of your device.</p>
User Name	<p>This setting is only visible if you select SNMP v3 above. Enter the user name for access to the target SNMP device.</p> <p>i The user name that you enter must match the user name of your device.</p>
Password	<p>This setting is only visible if you select SNMP v3 above. Enter the password for access to the target SNMP device.</p> <p>i The password that you enter must match the password of your device.</p>
Encryption Type	<p>This setting is only visible if you select SNMP v3 above. Select an encryption type:</p> <ul style="list-style-type: none"> ▪ DES: Use Data Encryption Standard (DES) as the encryption algorithm. ▪ AES: Use Advanced Encryption Standard (AES) as the encryption algorithm. <p>i Net-SNMP does not support AES-192 and AES-256. They do not have RFC specifications.</p> <p>i The encryption type that you select must match the encryption type of your device.</p>
Encryption Key	<p>This setting is only visible if you select SNMP v3 above. Enter an encryption key. If you provide a key, PRTG encrypts SNMP data packets with the encryption algorithm that you selected above. Enter a string or leave the field empty.</p> <p>i The encryption key that you enter must match the encryption key of your device. If the encryption keys do not match, you do not get an error message.</p>
Context Name	<p>This setting is only visible if you select SNMP v3 above. Enter a context name only if the configuration of the device requires it. Context is a collection of management information that is accessible by an SNMP device. Enter a string.</p>

Setting	Description
SNMP Port	<p>Enter the port for the connection to the SNMP target device. Enter an integer value. The default port is 161.</p> <p>i We recommend that you use the default value.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p>

Credentials for Database Management Systems

The settings you define in this section apply to the following sensors:

- [ADO SQL v2 sensor](#) 
- [Microsoft SQL v2 sensor](#) 
- [MySQL v2 sensor](#) 
- [Oracle SQL v2 sensor](#) 
- [PostgreSQL sensor](#) 

Setting	Description
Port	<p>Select the port that PRTG uses for connections to the monitored databases:</p> <ul style="list-style-type: none"> ▪ Default (recommended): PRTG automatically determines the type of the database and uses the corresponding default port to connect. PRTG uses the following default ports: <ul style="list-style-type: none"> ▫ Microsoft SQL: 1433 ▫ MySQL: 3306 ▫ Oracle SQL: 1521 ▫ PostgreSQL: 5432 ▪ Custom port for all database sensors: Select this option if your database management systems do not use the default ports. Enter a custom port for database connections below. <p>i PRTG uses this custom port for all database sensors and for connections to all your databases.</p>
Custom Port	<p>Enter a custom port for database connections. Enter an integer value.</p> <p>i PRTG uses this custom port for all database sensors and for connections to all your databases.</p>

Setting	Description
Authentication Method	<p>Select the authentication method for the connection to the Structured Query Language (SQL) database:</p> <ul style="list-style-type: none"> Windows authentication with impersonation: PRTG uses the Windows credentials that you define in settings that are higher in the object hierarchy¹³⁸, for example, in the settings of the parent device; for the database connection. <ul style="list-style-type: none"> i The user whose credentials PRTG uses needs to have permission to log in to the probe system with a database sensor. This is necessary for the impersonation. SQL server authentication: Use explicit credentials for database connections. Enter a user name and password below.
User Name	This setting is only visible if you select SQL server authentication above. Enter the user name for the database connection.
Password	This setting is only visible if you select SQL server authentication above. Enter the password for the database connection.
Timeout (Sec.)	Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).

Credentials for AWS

■ For more information about the permissions that are necessary to query the AWS API, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)

Setting	Description
Access Key	Enter the Amazon Web Services (AWS) access key.
Secret Key	Enter the AWS secret key.

Windows Compatibility Options

If you experience problems when you monitor via Windows sensors, use the following compatibility options for troubleshooting.

Setting	Description
Preferred Data Source	i This setting only applies to hybrid sensors that use both performance counters and Windows Management Instrumentation (WMI). The












Setting	Description
	<p>setting does not apply to other sensors.</p> <p>Define the method that Windows sensors use to query data:</p> <ul style="list-style-type: none"> ▪ Performance counters and WMI as fallback: Try to query data via performance counters. If this is not possible, establish a connection via WMI. ▪ Performance counters only: Query data via performance counters only. If this is not possible, the sensor returns no data. ▪ WMI only (recommended): Query data via WMI only. If this is not possible, the sensor returns no data. We recommend that you use this option.
Timeout Method	<p>Select the time that the sensor waits for the return of the WMI query before the sensor cancels the query and shows an error message:</p> <ul style="list-style-type: none"> ▪ Use 1.5x scanning interval (recommended): Multiply the scanning interval of the sensor by 1.5 and use the resulting value. ▪ Set manually: Manually enter a timeout value. <p>i We recommend that you use the default value.</p> <p>i If you experience ongoing timeout errors, try increasing the timeout value.</p>
Timeout (Sec.)	<p>This setting is only visible if you select Set manually above. Enter the time the sensor waits for the return of its WMI query before it cancels it and shows an error message. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p>









SNMP Compatibility Options

If you experience problems when you monitor via Simple Network Management Protocol (SNMP) sensors, use the following compatibility options for troubleshooting.

Setting	Description
SNMP Delay (ms)	<p>Enter the time in milliseconds (ms) that PRTG waits between two SNMP requests. This can increase device compatibility. Enter an integer value. You can define a delay between 0 and 100. PRTG does not support higher delays.</p> <p>i We recommend that you use the default value.</p> <p>i If you experience SNMP connection failures, try increasing the delay.</p>
Failed Requests	<p>Select if an SNMP sensor tries again after a request fails:</p>

Setting	Description
Overflow Values	<ul style="list-style-type: none"> ▪ Retry (recommended): Try again if an SNMP request fails. This can prevent false error messages because of temporary timeout failures. ▪ Do not retry: Do not retry if an SNMP request fails. If you select this option, an SNMP sensor shows a Down status earlier. <p>Select how PRTG handles overflow values. Some devices do not correctly handle internal buffer overflows. This can cause false peaks.</p> <ul style="list-style-type: none"> ▪ Ignore overflow values: Ignore overflow values and do not include them in the monitoring data. We recommend that you use this option. ▪ Handle overflow values as valid results: Regard all overflow values as regular data and include them in the monitoring data. <p>i If you experience problems because of strange peaks in your data graphs, change this option. Peaks might indicate that the monitored device resets counters without an overflow. PRTG interprets such behavior as overflow that results in data peaks. Select the option Ignore overflow values in this case. For more details, see the Knowledge Base: What is the Overflow Values setting in the SNMP Compatibility Options?</p>
Zero Values	<p>Select how PRTG handles zero values. Some devices send incorrect zero values. This can cause false peaks.</p> <ul style="list-style-type: none"> ▪ Ignore zero values for delta sensors (recommended): Ignore zero values and do not include them in the monitoring data. We recommend that you use this option. <p>i If you experience problems, try changing this option.</p> <ul style="list-style-type: none"> ▪ Handle zero values as valid results for delta sensors: Regard all zero values as regular data and include them in the monitoring data.
32-bit/64-bit Counters	<p>Select the type of traffic counters that PRTG searches for on a device:</p> <ul style="list-style-type: none"> ▪ Use 64-bit counters if available (recommended): The interface scan uses 64-bit traffic counters, if available. This can avoid buffer overflows in the devices <p>i We recommend that you use the default value.</p> <p>i If you experience problems, try changing this option.</p> <ul style="list-style-type: none"> ▪ Use 32-bit counters only: The interface scan always uses 32-bit traffic counters, even if 64-bit counters are available. This can make monitoring more reliable for some devices.
Request Mode	<p>Select the request method that PRTG uses for SNMP sensors:</p> <ul style="list-style-type: none"> ▪ Use multi get (recommended): Bundle multiple SNMP requests into one request. We recommend that you use this option. <p>i If you experience problems, try changing this option.</p> <ul style="list-style-type: none"> ▪ Use single get: Use one request for each SNMP value. This can increase compatibility with older devices.

Setting	Description
Walk Mode	<p>  PRTG uses paging for SNMP requests. This means that if a sensor has to query more than 20 object identifiers (OID), it automatically polls the OIDs in packages of 20 OIDs each. </p> <p>Select the kind of SNMP walk that PRTG uses for SNMP sensors:</p> <ul style="list-style-type: none"> <li> <p>  Use GETBULK requests (recommended): Request the next x OIDs in one SNMP request. The default value is 10. It is dynamic based on the response size. </p> <p>  This option only works with devices that support SNMP version v2c or higher. Make sure that you set the correct SNMP Version in the Credentials for SNMP Devices settings of the parent device or inherit it from objects that are higher in the object hierarchy^[138]. </p> <li> <p>  Use GETNEXT requests: Request one OID at a time. This can increase compatibility with older devices or with devices that have insufficient SNMP BULKWALK support. </p>
Port Name Template	<p> Select how PRTG displays the name of SNMP sensors. Enter a template that uses several variables. When you add new sensors, PRTG scans the interface for available counters at certain OIDs. At each OID, several fields with interface descriptions are usually available. They are different for every device and OID. PRTG uses the information in these fields to name the sensors. If a field is empty or if it is not available, PRTG adds an empty string to the name. By default, the port name template is ([port]) [ifalias] [ifsensor], which creates a name like (001) Ethernet1 Traffic. You can use and combine any field names that are available at an OID of your device, for example: </p> <ul style="list-style-type: none"> <li> <p>  [port]: The port number of the monitored interface. </p> <li> <p>  [ifalias]: The 'alias' name for the monitored interface as specified by a network manager, providing a non-volatile handling. </p> <li> <p>  [ifname]: The textual name of the monitored interface as assigned by the local device. </p> <li> <p>  [ifdescr]: A textual string containing information about the monitored device or interface, for example, manufacturer, product name, or version. </p> <li> <p>  [ifspeed]: An estimate of the monitored interface's current bandwidth (Kbit/s). </p> <li> <p>  [ifsensor]: The type of the sensor, this is Traffic or RMON. This helps to differentiate between SNMP Traffic^[3094] and SNMP RMON^[3021] sensors. </p> <p>  For more information about SNMP sensor names, see the Knowledge Base: How can I change the defaults for names automatically generated for new SNMP sensors? </p>
Port Name Update	<p> Select how PRTG reacts if you change the names of ports in your physical device (for example, a switch or router): </p>

Setting	Description
Port Identification	<ul style="list-style-type: none"> ▪ Keep port names (use this if you edit the names in PRTG): Do not automatically adjust sensor names. This is the best option if you want to manually change names in PRTG. ▪ Automatically update sensor names if port names change in the device: If PRTG detects port name changes in your physical device, it tries to automatically adjust the sensor names accordingly. <p> For more information about automatic name updates, see the Knowledge Base: Automatically update port name and number for SNMP Traffic sensors when the device changes them</p>
Start Interface Index	<p>Select the field that PRTG uses for SNMP interface identification:</p> <ul style="list-style-type: none"> ▪ Automatic identification (recommended): Try the ifAlias field first to identify an SNMP interface and then try ifDescr. <ul style="list-style-type: none">  PRTG does not automatically try ifName. ▪ Use ifAlias: For most devices, ifAlias is the best field to use for unique interface names. ▪ Use ifDescr: Use this option if the port order of your device changes after a restart, and if no ifAlias field is available. For example, this is the best option for Cisco ASA devices. <ul style="list-style-type: none">  If you use this option, it is important that your device returns unique interface names in the ifDescr field. ▪ Use ifName: You can also use this option if no unique ifAlias is available. <ul style="list-style-type: none">  If you use this option, it is important that your device returns unique interface names in the ifName field. ▪ Do not update ports: Use this option to disable the automatic port identification. <p> This setting only applies to SNMP Traffic sensors^[3094] and to Cisco IP SLA sensors^[658].</p> <p>Enter the index at which PRTG starts to query the interface range during sensor creation. Enter 0 for the automatic mode.</p> <p> We recommend that you use the default value.</p>
End Interface Index	<p> This setting only applies to SNMP Traffic sensors^[3094] and to Cisco IP SLA sensors^[658].</p> <p>Enter the index at which PRTG stops querying the interface range during sensor creation. Enter 0 for the automatic mode.</p> <p> We recommend that you use the default value.</p>

Proxy Settings for HTTP Sensors

The proxy settings determine how a sensor connects to a URL. You can enter data for an HTTP proxy server that sensors use when they connect via HTTP or HTTPS.

- i This setting only applies to HTTP sensors and how they monitor. To change the proxy settings for the PRTG core server, see section [Core & Probes](#)⁴²⁰³.
- i The [SSL Certificate sensor](#)³³⁰² and the [SSL Security Check sensor](#)³³¹⁵ do not support HTTP proxies but you can configure connections via SOCKS proxies in the sensors' settings.

Setting	Description
IP Address/DNS Name	Enter the IP address or Domain Name System (DNS) name of the proxy server. If you leave this field empty, HTTP sensors do not use a proxy.
Port	Enter the port number of the proxy. The default is 8080. Enter an integer value.
User Name	<p>If the proxy requires authentication, enter the user name for the proxy login.</p> <p>i Only basic authentication is available. Enter a string or leave the field empty.</p>
Password	<p>If the proxy requires authentication, enter the password for the proxy login.</p> <p>i Only basic authentication is available. Enter a string or leave the field empty.</p>

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To close an active one-time maintenance window before the end date, select Do not set up a one-time maintenance window.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>


Access Rights

Setting	Description
User Group Access	<p>Select the user groups ⁴²¹⁹ that have access to the object. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the object. The object neither shows up in lists nor in the device tree. <ul style="list-style-type: none"> ⓘ There is one exception: If a user in this user group has access to a child object, the parent object is visible in the device tree but users in this user group cannot access it. ▪ Read access: Users in this group can see the object and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the object, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the object, view its monitoring results, edit its settings, and edit its access rights settings. <p>To automatically set all child objects to inherit this object's access rights, enable the Revert children's access rights to inherited option.</p> <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Advanced Network Analysis

Setting	Description
Unusual Detection	<p>Select if you want to use the unusual detection^[4188] for sensors:</p> <ul style="list-style-type: none"> ▪ Enabled: Activate the unusual detection for this object and, by default, for all objects underneath in the object hierarchy^[138]. Sensors that are affected by this setting show the Unusual status if PRTG detects unusual activity. ▪ Disabled: Do not activate the unusual detection. PRTG ignores unusual values for sensors that are affected by this setting. These sensors do not show the Unusual status. <p>i You can configure the behavior of the unusual detection or completely disable it in the system settings^[4188].</p>
Similar Sensors Detection	<p>Select if you want to activate the similar sensors^[215] analysis:</p> <ul style="list-style-type: none"> ▪ Enabled: Activate the similar sensors detection for this object and, by default, for all objects underneath in the object hierarchy. PRTG considers all sensors that are affected by this setting during the similarity analysis. ▪ Disabled: Do not activate the similar sensors detection. PRTG does not consider sensors that are affected by this setting during the similarity analysis. <p>i You can configure the depth of the analysis of the similar sensors detection or completely disable it in the system settings^[4190].</p>
System Information	<p>Select if you want to retrieve and show system information^[231] for your devices:</p> <ul style="list-style-type: none"> ▪ Enabled: Activate the system information feature for this object and, by default, for all objects underneath in the hierarchy. ▪ Disabled: Do not activate the system information feature. <p>i The System Information feature is enabled by default. To retrieve the data, PRTG automatically uses the credentials for Windows systems^[452] and the credentials for SNMP devices^[453] that you entered in the device settings or that the device inherits^[138] from a parent object like the root group. Consider this when you monitor devices that are outside of your local network, especially when you use SNMP v1 or SNMP v2c, which do not provide encryption.</p> <p> This setting is not available on the hosted probe of a PRTG Hosted Monitor instance.</p>

i Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>

What is the Overflow Values setting in the SNMP Compatibility Options?

- <https://kb.paessler.com/en/topic/43503>












How can I change the defaults for names automatically generated for new SNMP sensors?

- <https://kb.paessler.com/en/topic/7363>

Automatically update port name and number for SNMP Traffic sensors when the device changes them

- <https://kb.paessler.com/en/topic/25893>

Device and Sensor Setup

- [Auto-Discovery](#)  296
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7.5 Probe Settings

The following settings are available on the Settings tab of a probe.

- ❗ We recommend that you define as many settings as possible in the [root group settings](#) so that you can inherit them to all other objects in the [object hierarchy](#).
- ❗ This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

In this section:


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- [Location](#)
- [Credentials for Windows Systems](#)
- [Credentials for Linux/Solaris/macOS \(SSH/WBEM\) Systems](#)
- [Credentials for VMware/XenServer](#)
- [Credentials for SNMP Devices](#)
- [Credentials for Database Management Systems](#)
- [Credentials for AWS](#)
- [Credentials for Dell EMC](#)
- [Credentials for Microsoft 365](#)
- [Credentials for Microsoft Azure](#)
- [Credentials for MQTT](#)
- [Credentials for OPC UA](#)
- [Credentials for Soffico Orchestra](#)
- [Credentials for Veeam](#)
- [Windows Compatibility Options](#)
- [SNMP Compatibility Options](#)
- [Proxy Settings for HTTP Sensors](#)
- [Scanning Interval](#)
- [Cluster Monitoring Exclusion](#)
- [Schedules, Dependencies, and Maintenance Windows](#)
- [Access Rights](#)
- [Channel Unit Configuration](#)
- [Advanced Network Analysis](#)
- [Administrative Probe Settings](#)
- [Scheduled Restart Settings](#)

- [More](#)^[411]
- [Device and Sensor Setup](#)

Basic Probe Settings

Setting	Description
Probe Name	<p>Enter a meaningful name to identify the probe. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[4031], reports^[4069], maps^[4095], libraries^[4047], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>
Status	<p>Select the monitoring status of the probe:</p> <ul style="list-style-type: none"> ▪ Started: Monitor the probe. ▪ Paused: Pause monitoring for the probe. All sensors on all devices on the probe are in the Paused status^[256] until you change this setting.
Priority	<p>Select a priority^[253] for the probe. This setting determines the position of the probe in lists. The highest priority is at the top of a list. You can choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>


Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

- For more information, see section [Inheritance of Settings](#)^[142].

Location

Click  to interrupt the [inheritance](#)^[142].

Setting	Description
Location (for Geo Maps)	<p>If you want to use Geo Maps⁴⁰²⁶, enter a location in the first line. Geographical maps then display objects like devices or groups with a status icon using a color code similar to the sensor status icons¹⁹⁷ (green–yellow–orange–red). You can enter a full postal address, city and country only, or latitude and longitude. It is possible to enter any text before, between, and after the coordinates, as PRTG automatically parses latitude and longitude, for example, enter 49.452778 11.077778, or enter 49.452778 any 11.077778 text.</p> <p>A minus sign (-) in the first line hides an object from a geographical map. In this case, you can enter location information in line two and following.</p> <p>You can define a specific label for each location. Enter a string denoting the label in the first line and provide the coordinates in the second line. This geographical marker then shows the object with the label in the geographical map.</p> <p> The preview map always has a road map layout regardless of the map layout you set in User Interface⁴¹⁷⁵.</p>










Credentials for Windows Systems

Click  to interrupt the [inheritance](#)¹⁴².


Setting	Description
Domain or Computer Name	<p>Enter the domain or computer name of the user account with which you want to access the Windows system. PRTG uses this account for Windows Management Instrumentation (WMI) sensors and other Windows sensors.</p> <p>If you want to use a Windows local user account on the target device, enter the computer name. If you want to use a Windows domain user account (recommended), enter the domain name. PRTG automatically adds a prefix to use the NT LAN Manager (NTLM) protocol if you do not explicitly define it. Do not leave this field empty.</p>
User Name	Enter the user name for access to the Windows system. Usually, you use credentials with administrator rights.
Password	Enter the password for access to the Windows system. Usually, you use credentials with administrator rights.

Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems

Click  to interrupt the [inheritance](#)¹⁴².


Setting	Description
User Name	Enter the user name for access to the Linux/Solaris/macOS system via Secure Shell (SSH) and Web-based Enterprise Management (WBEM). Usually, you use credentials with administrator rights.
Authentication Method	<p>Select the authentication method for login:</p> <ul style="list-style-type: none"> ▪ Password: Provide the password for the login. ▪ Private key: Provide an RSA private key for authentication. <p> PRTG can only handle keys in the OpenSSH format that are not encrypted. You cannot use password-protected keys.</p> <p> PRTG only supports RSA keys. It does not support DSA keys.</p> <p> For details, see section Monitoring via SSH⁴³⁰¹.</p>
Password	This setting is only visible if you select Password above. Enter a password for access to the Linux/Solaris/macOS system via SSH and WBEM. Usually, you use credentials with administrator rights.
Private Key	<p>This setting is only visible if you select Private key above. Paste the entire RSA private key, including the BEGIN and END lines. Make sure that a corresponding public key exists on the target device.</p> <p> PRTG can only handle keys in the OpenSSH format that are not encrypted. You cannot use password-protected keys.</p> <p> PRTG only supports RSA keys. It does not support DSA keys.</p> <p> For details, see section Monitoring via SSH⁴³⁰¹.</p> <p> If you do not insert a private key for the first time but if you want to change the private key, you need to restart the PRTG core server service⁴²²⁵ for the private key change to take effect.</p>
WBEM Protocol	<p>Select the protocol that you want to use for the connection to the system via WBEM:</p> <ul style="list-style-type: none"> ▪ HTTP: Use an unsecure connection for WBEM. ▪ HTTPS (default): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection for WBEM. <p> This setting is only relevant if you use WBEM sensors.</p>
WBEM Port	<p>Select if you want to use one of the default ports for the connection to the system via WBEM or if you want to set a custom port:</p> <ul style="list-style-type: none"> ▪ Default: Use one of the default ports. The default port for unsecure connections is 5988 and the default port for secure connections is 5989. ▪ Custom: Use a custom port. <p> This setting is only relevant if you use WBEM sensors.</p>

Setting	Description
Custom WBEM Port	This setting is only visible if you select Custom above. Enter a custom WBEM port. Enter an integer value.
SSH Port	<p>Enter the port for SSH connections. Enter an integer value. The default port is 22.</p> <p>i By default, PRTG automatically uses this setting for all SSH sensors ⁴⁶¹² unless you define a different port number in the sensor settings.</p>
SSH Rights Elevation	<p>Select the rights that you want to use to run the command on the target system:</p> <ul style="list-style-type: none"> ▪ Run the command as the connecting user (default): Use the rights of the user who establishes the SSH connection. ▪ Run the command as a different user using 'sudo' (with password): Use the rights of a different user with a password required for sudo to run commands on the target system, for example, as a root user. ▪ Run the command as a different user using 'sudo' (without password): Use the rights of a different user without a password required for sudo to run commands on the target system, for example, as a root user. ▪ Run the command as a different user using 'su': Use the rights of a different user with su to run commands on the target system.
Target User Name	This setting is only visible if you select an option that includes sudo or su above. Enter a user name to run the specified command on the target system as a different user than the root user. If you leave this field empty, you run the command as a root user. Make sure that you set the Linux password even if you use a public key or a private key for authentication. This is not necessary if the user is allowed to run the command without a password.
Password	This setting is only visible if you select an option that includes sudo or su with password above. Enter the password to run the sudo command or the su command.
SSH Connection Mode	<p>Select the connection mode that you want to use to access data with SSH sensors ⁴³⁰¹:</p> <ul style="list-style-type: none"> ▪ Default (recommended): This is the default monitoring method for SSH sensors. It provides the best performance and security. ▪ Compatibility mode (deprecated): Use this mode only if the default mode does not work on the target system. The compatibility mode is the SSH engine that PRTG used in previous versions and it is deprecated. <p>i We strongly recommend that you use the default SSH connection mode.</p>

Setting	Description
	<p> You can also individually select the SSH connection mode for each SSH sensor in the sensor settings.</p>

Credentials for VMware/XenServer






Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
User Name	Enter the user name for access to VMware ESXi, vCenter Server, or Citrix XenServer. Usually, you use credentials with administrator rights.
Password	<p>Enter the password for access to VMware ESXi, vCenter Server, or Citrix XenServer. Usually, you use credentials with administrator rights.</p> <p> Single sign-on (SSO) passwords for vSphere do not support special characters. For details, see the VMware sensors sections.</p>
VMware Protocol	<p>Select the protocol for the connection to VMware ESXi, vCenter Server, or Citrix XenServer:</p> <ul style="list-style-type: none"> ▪ HTTPS (recommended): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. ▪ HTTP: Use an unsecure connection.
Session Handling	<p>Select if you want to reuse a session for VMware sensors:</p> <ul style="list-style-type: none"> ▪ Reuse a session for multiple scans (recommended): Select this option if you want a VMware sensor to reuse a single session for multiple sensor scans to query data. With this option, the sensor does not need to log in and out for each sensor scan. We recommend that you use this option because it reduces network load and log entries on the target device. This can increase performance. ▪ Create a new session for each scan: If you select this option, PRTG does not reuse a session and a VMware sensor has to log in and out for each sensor scan. This can decrease performance.

Credentials for SNMP Devices

Click  to interrupt the [inheritance](#)¹⁴².





Setting	Description
SNMP Version	<p>Select the Simple Network Management Protocol (SNMP) version for the connection to the target SNMP device:</p> <ul style="list-style-type: none"> ▪ SNMP v1: Use SNMP v1 for the connection. SNMP v1 only offers clear-text data transmission. <ul style="list-style-type: none"> ❗ SNMP v1 does not support 64-bit counters. This might result in invalid data when you monitor traffic via SNMP. ▪ SNMP v2c (recommended): Use SNMP v2c for the connection. SNMP v2c also only offers clear-text data transmission but it supports 64-bit counters. ▪ SNMP v3: Use SNMP v3 for the connection. SNMP v3 provides secure authentication and data encryption. <ul style="list-style-type: none"> ❗ SNMP v3 has performance limitations because of the use of encryption. The main limiting factor is CPU power. Also keep in mind that SNMP v3, unlike SNMP v1 and v2c, does not scale with more CPU power. Because of this limitation, PRTG can only handle a limited number of requests per second so that you can use only a limited number of sensors using SNMP v3. If you see an increase in Interval Delay or Open Requests with the Probe Health sensor²⁰⁸³, distribute the load over multiple probes⁴⁶⁰³. SNMP v1 and SNMP v2c do not have this limitation.
Community String	<p>This setting is only visible if you select SNMP v1 or SNMP v2c above. Enter the community string of your device. This is like a clear-text password for simple authentication.</p> <p>❗ We recommend that you use the default value.</p>
Authentication Method	<p>This setting is only visible if you select SNMP v3 above. Select the authentication method:</p> <ul style="list-style-type: none"> ▪ MD5: Use message-digest algorithm 5 (MD5) for authentication. ▪ SHA: Use Secure Hash Algorithm (SHA) for authentication. <p>❗ If you do not want to use authentication but you need SNMP v3, for example, because your device requires context, you can leave the Password field empty. In this case, PRTG uses SNMP_SEC_LEVEL_NOAUTH and it entirely deactivates authentication.</p> <p>❗ The authentication method you select must match the authentication method of your device.</p>
User Name	<p>This setting is only visible if you select SNMP v3 above. Enter the user name for access to the target SNMP device.</p> <p>❗ The user name that you enter must match the user name of your device.</p>
Password	<p>This setting is only visible if you select SNMP v3 above. Enter the password for access to the target SNMP device.</p>

Setting	Description
	<p> The password that you enter must match the password of your device.</p>
Encryption Type	<p>This setting is only visible if you select SNMP v3 above. Select an encryption type:</p> <ul style="list-style-type: none"> ▪ DES: Use Data Encryption Standard (DES) as the encryption algorithm. ▪ AES: Use Advanced Encryption Standard (AES) as the encryption algorithm. <p> Net-SNMP does not support AES-192 and AES-256. They do not have RFC specifications.</p> <p> The encryption type that you select must match the encryption type of your device.</p>
Encryption Key	<p>This setting is only visible if you select SNMP v3 above. Enter an encryption key. If you provide a key, PRTG encrypts SNMP data packets with the encryption algorithm that you selected above. Enter a string or leave the field empty.</p> <p> The encryption key that you enter must match the encryption key of your device. If the encryption keys do not match, you do not get an error message.</p>
Context Name	<p>This setting is only visible if you select SNMP v3 above. Enter a context name only if the configuration of the device requires it. Context is a collection of management information that is accessible by an SNMP device. Enter a string.</p>
SNMP Port	<p>Enter the port for the connection to the SNMP target device. Enter an integer value. The default port is 161.</p> <p> We recommend that you use the default value.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p>




Credentials for Database Management Systems

Click  to interrupt the [inheritance](#) .

The settings you define in this section apply to the following sensors:

- [ADO SQL v2 sensor](#) 
- [Microsoft SQL v2 sensor](#) 
- [MySQL v2 sensor](#) 
- [Oracle SQL v2 sensor](#) 

▪ [PostgreSQL sensor](#) 

Setting	Description
Port	<p>Select the port that PRTG uses for connections to the monitored databases:</p> <ul style="list-style-type: none"> ▪ Default (recommended): PRTG automatically determines the type of the database and uses the corresponding default port to connect. PRTG uses the following default ports: <ul style="list-style-type: none"> ▫ Microsoft SQL: 1433 ▫ MySQL: 3306 ▫ Oracle SQL: 1521 ▫ PostgreSQL: 5432 ▪ Custom port for all database sensors: Select this option if your database management systems do not use the default ports. Enter a custom port for database connections below. <p> PRTG uses this custom port for all database sensors and for connections to all your databases.</p>
Custom Port	<p>Enter a custom port for database connections. Enter an integer value.</p> <p> PRTG uses this custom port for all database sensors and for connections to all your databases.</p>
Authentication Method	<p>Select the authentication method for the connection to the Structured Query Language (SQL) database:</p> <ul style="list-style-type: none"> ▪ Windows authentication with impersonation: PRTG uses the Windows credentials that you define in settings that are higher in the object hierarchy^[138], for example, in the settings of the parent device; for the database connection. <p> The user whose credentials PRTG uses needs to have permission to log in to the probe system with a database sensor. This is necessary for the impersonation.</p> <ul style="list-style-type: none"> ▪ SQL server authentication: Use explicit credentials for database connections. Enter a user name and password below.
User Name	<p>This setting is only visible if you select SQL server authentication above. Enter the user name for the database connection.</p>
Password	<p>This setting is only visible if you select SQL server authentication above. Enter the password for the database connection.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p>

Credentials for AWS

Click  to interrupt the [inheritance](#)¹⁴².

■ For more information about the permissions that are necessary to query the AWS API, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)

Setting	Description
Access Key	Enter the Amazon Web Services (AWS) access key.
Secret Key	Enter the AWS secret key.


Credentials for Dell EMC

Setting	Description
User	Enter the user name for access to the Dell EMC system.
Password	Enter the password for access to the Dell EMC system.
Port	Enter the port for the connection to the Dell EMC system. The default port for secure connections is 443 .

Credentials for Microsoft 365

 The [Microsoft 365 Service Status sensor](#)¹⁵⁴⁶ and the [Microsoft 365 Service Status Advanced sensor](#)¹⁵⁵⁷ use the following credentials to authenticate with Azure Active Directory (Azure AD).

■ For more information about the credentials and the permissions that are necessary to use the Microsoft 365 sensors, see the Knowledge Base: [How do I obtain credentials and set permissions for the Microsoft 365 sensors?](#)

Setting	Description
Tenant ID	Enter the Azure AD tenant ID.  A tenant ID must be a 32-digit sequence in hexadecimal notation.
Client ID	Enter the Azure AD client ID.
Client Secret	Enter the Azure AD client secret.

Credentials for Microsoft Azure




i The [Microsoft Azure Subscription Cost sensor](#)¹⁵⁶⁸ and the [Microsoft Azure Virtual Machine sensor](#)¹⁵⁸² use the following credentials to authenticate with Azure AD.

■ For more information about the credentials and permissions that are necessary use the Microsoft Azure sensors, see the Knowledge Base: [How do I obtain credentials and create custom roles for the Microsoft Azure sensors?](#)

Setting	Description
Tenant ID	Enter the Azure AD tenant ID. i A tenant ID must be a 32-digit sequence in hexadecimal notation.
Client ID	Enter the Azure AD client ID.
Client Secret	Enter the Azure AD client secret.
Subscription ID	Enter the Azure AD subscription ID.




Credentials for MQTT

Setting	Description
Authentication Method	Select if you want to connect without credentials or define credentials for access to the MQTT broker. <ul style="list-style-type: none"> None (default): Connect without credentials. User name and password: Define credentials for the connection.
User	This setting is only visible if you select User name and password above. Enter the user name for access to the Message Queue Telemetry Transport (MQTT) broker.
Password	This setting is only visible if you select User name and password above. Enter the password for access to the MQTT broker.
Port	Enter the port for the connection to the MQTT broker. The default port for secure connections is 8883 and the default port for unsecure connections is 1883 .
Transport-Level Security	Select if you want to use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection: <ul style="list-style-type: none"> Do not use transport-level security: Establish the connection without connection security.

Setting	Description
	<ul style="list-style-type: none"> Use transport-level security: Establish the connection with the strongest SSL/TLS method that the target device provides.
Server Authentication	<p>This setting is only visible if you select Use transport-level-security above. Select if you want to use a certificate for server authentication.</p> <ul style="list-style-type: none"> Disable (default): Do not use a certificate for server authentication. Enable: Use a certificate for server authentication.
CA Certificate	<p>Paste the certificate authority (CA) certificate for the verification of the MQTT broker.</p> <p> The certificate must be in Privacy-Enhanced Mail (PEM) format.</p>
Client Authentication	<p>This setting is only visible if you select Use transport-level-security above. Select if you want to use a certificate for client authentication.</p> <ul style="list-style-type: none"> Disable (default): Do not use a certificate for client authentication. Enable: Use a certificate for client authentication.
Client Certificate	<p>Paste the certificate that you created for authenticating the sensor against the MQTT broker.</p> <p> The certificate must be in PEM format.</p>
Client Key	<p>Enter the client key for access to the MQTT broker.</p> <p> The client key must be in PEM format and it must be encrypted using the Client Key Password.</p>
Client Key Password	<p>Enter the password for the client key.</p>

Credentials for OPC UA

Setting	Description
Port	<p>Enter the port for the connection to the OPC Unified Architecture (OPC UA) server. The default port for secure connections is 4840.</p>
Server Path	<p>Enter the path of the OPC UA server endpoint if you run more than one server under the same IP address or DNS name.</p>
Security Mode	<p>Select if you want to use encryption:</p> <ul style="list-style-type: none"> None (default): Do not use encryption. Sign: Sign messages between the sensor and the OPC UA server.

Setting	Description
	<ul style="list-style-type: none"> ▪ Sign & Encrypt: Sign and encrypt messages between the sensor and the OPC UA server.
Security Policy	<p>This setting is only visible if you select Sign or Sign & Encrypt above. Select if you want to use a security policy and define which policy you want to use:</p> <ul style="list-style-type: none"> ▪ None (default): Do not use a security policy. ▪ Basic256Sha256: Use the Basic256Sha256 security policy. ▪ Basic256: Use the Basic256 security policy.
Client Certificate	<p>Paste the certificate that you created for authenticating the sensor against the OPC UA server.</p> <p> The certificate must meet the following requirements:</p> <ul style="list-style-type: none"> ▪ The key size must be 2048-bit. ▪ The secure hash algorithm must be SHA256. ▪ DataEncipherment must be part of the KeyUsage certificate extension. ▪ A uniform resource indicator (URI) must be set in subjectAltName. ▪ The certificate must be in Privacy-Enhanced Mail (PEM) format.
Client Key	<p>Enter the client key for access to the OPC UA server.</p> <p> The client key must be in PEM format and it must be encrypted using the Client Key Password.</p>
Client Key Password	<p>Enter the password for the client key.</p>
Authentication Method	<p>Select if you want to connect without credentials or define credentials for access to the OPC UA server:</p> <ul style="list-style-type: none"> ▪ Anonymous (default): Connect without credentials. ▪ Username/Password: Define credentials for the connection. <p> Most OPC UA servers do not support Username/Password authentication without a client certificate. To use Username/Password authentication, select Sign or Sign & Encrypt under Security Mode and Basic256Sha256 or Basic256 under Security Policy and enter the Client Certificate, Client Key, and Client Key Password that you want to use.</p>
User	<p>This setting is only visible if you select Username/Password above. Enter the user name for access to the OPC UA server.</p>
Password	<p>This setting is only visible if you select Username/Password above. Enter the password for access to the OPC UA server.</p>

Credentials for Soffico Orchestra

Setting	Description
Authentication Method	Select if you want to connect without credentials or define credentials for access to the Orchestra platform: <ul style="list-style-type: none"> None (default): Connect without credentials. Username/Password: Define credentials for the connection.
User	This setting is only visible if you select Username/Password above. Enter the user name for access to the Orchestra platform.
Password	This setting is only visible if you select Username/Password above. Enter the password for access to the Orchestra platform.
Timeout (Sec.)	Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).
Port	Enter the port for the connection to the Orchestra platform. The default port for secure connections is 8443 and the default port for unsecure connections is 8019.
Protocol	Select the protocol that you want to use for the connection to the Orchestra platform: <ul style="list-style-type: none"> HTTPS (default): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. HTTP: Use an unsecure connection.

Credentials for Veeam

Setting	Description
User	Enter the user name for access to the Veeam Backup Enterprise Manager.
Password	Enter the password for access to the Veeam Backup Enterprise Manager.
Port	Enter the port for the connection to the Veeam Backup Enterprise Manager. The default port for secure connections is 9398.

Windows Compatibility Options

Click  to interrupt the [inheritance](#)^[142].

If you experience problems when you monitor via Windows sensors, use the following compatibility options for troubleshooting.

Setting	Description
Preferred Data Source	<p>i This setting only applies to hybrid sensors that use both performance counters and Windows Management Instrumentation (WMI). The setting does not apply to other sensors.</p> <p>Define the method that Windows sensors use to query data:</p> <ul style="list-style-type: none"> ▪ Performance counters and WMI as fallback: Try to query data via performance counters. If this is not possible, establish a connection via WMI. ▪ Performance counters only: Query data via performance counters only. If this is not possible, the sensor returns no data. ▪ WMI only (recommended): Query data via WMI only. If this is not possible, the sensor returns no data. We recommend that you use this option.
Timeout Method	<p>Select the time that the sensor waits for the return of the WMI query before the sensor cancels the query and shows an error message:</p> <ul style="list-style-type: none"> ▪ Use 1.5x scanning interval (recommended): Multiply the scanning interval of the sensor by 1.5 and use the resulting value. ▪ Set manually: Manually enter a timeout value. <p>i We recommend that you use the default value. i If you experience ongoing timeout errors, try increasing the timeout value.</p>
Timeout Value (Sec.)	<p>This setting is only visible if you select Set manually above. Enter the time the sensor waits for the return of its WMI query before it cancels it and shows an error message. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p>

SNMP Compatibility Options









Click  to interrupt the [inheritance](#)¹⁴².


If you experience problems when you monitor via Simple Network Management Protocol (SNMP) sensors, use the following compatibility options for troubleshooting.

Setting	Description
SNMP Delay (ms)	<p>Enter the time in milliseconds (ms) that PRTG waits between two SNMP requests. This can increase device compatibility. Enter an integer value. You can define a delay between 0 and 100. PRTG does not support higher delays.</p>

Setting	Description
	<ul style="list-style-type: none"> ❗ We recommend that you use the default value. ❗ If you experience SNMP connection failures, try increasing the delay.
Failed Requests	<p>Select if an SNMP sensor tries again after a request fails:</p> <ul style="list-style-type: none"> ▪ Retry (recommended): Try again if an SNMP request fails. This can prevent false error messages because of temporary timeout failures. ▪ Do not retry: Do not retry if an SNMP request fails. If you select this option, an SNMP sensor shows a Down status earlier.
Overflow Values	<p>Select how PRTG handles overflow values. Some devices do not correctly handle internal buffer overflows. This can cause false peaks.</p> <ul style="list-style-type: none"> ▪ Ignore overflow values: Ignore overflow values and do not include them in the monitoring data. We recommend that you use this option. ▪ Handle overflow values as valid results: Regard all overflow values as regular data and include them in the monitoring data. <p>❗ If you experience problems because of strange peaks in your data graphs, change this option. Peaks might indicate that the monitored device resets counters without an overflow. PRTG interprets such behavior as overflow that results in data peaks. Select the option Ignore overflow values in this case. For more details, see the Knowledge Base: What is the Overflow Values setting in the SNMP Compatibility Options?</p>
Zero Values	<p>Select how PRTG handles zero values. Some devices send incorrect zero values. This can cause false peaks.</p> <ul style="list-style-type: none"> ▪ Ignore zero values for delta sensors (recommended): Ignore zero values and do not include them in the monitoring data. We recommend that you use this option. ❗ If you experience problems, try changing this option. ▪ Handle zero values as valid results for delta sensors: Regard all zero values as regular data and include them in the monitoring data.
32-bit/64-bit Counters	<p>Select the type of traffic counters that PRTG searches for on a device:</p> <ul style="list-style-type: none"> ▪ Use 64-bit counters if available (recommended): The interface scan uses 64-bit traffic counters, if available. This can avoid buffer overflows in the devices <p>❗ We recommend that you use the default value.</p> <p>❗ If you experience problems, try changing this option.</p> <ul style="list-style-type: none"> ▪ Use 32-bit counters only: The interface scan always uses 32-bit traffic counters, even if 64-bit counters are available. This can make monitoring more reliable for some devices.
Request Mode	<p>Select the request method that PRTG uses for SNMP sensors:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ Use multi get (recommended): Bundle multiple SNMP requests into one request. We recommend that you use this option. <ul style="list-style-type: none"> ❗ If you experience problems, try changing this option. ▪ Use single get: Use one request for each SNMP value. This can increase compatibility with older devices. <p>❗ PRTG uses paging for SNMP requests. This means that if a sensor has to query more than 20 object identifiers (OID), it automatically polls the OIDs in packages of 20 OIDs each.</p>
Walk Mode	<p>Select the kind of SNMP walk that PRTG uses for SNMP sensors:</p> <ul style="list-style-type: none"> ▪ Use GETBULK requests (recommended): Request the next <i>x</i> OIDs in one SNMP request. The default value is 10. It is dynamic based on the response size. <ul style="list-style-type: none"> ❗ This option only works with devices that support SNMP version v2c or higher. Make sure that you set the correct SNMP Version in the Credentials for SNMP Devices settings of the parent device or inherit it from objects that are higher in the object hierarchy ¹³⁸. ▪ Use GETNEXT requests: Request one OID at a time. This can increase compatibility with older devices or with devices that have insufficient SNMP BULKWALK support.
Port Name Template	<p>Select how PRTG displays the name of SNMP sensors. Enter a template that uses several variables. When you add new sensors, PRTG scans the interface for available counters at certain OIDs. At each OID, several fields with interface descriptions are usually available. They are different for every device and OID. PRTG uses the information in these fields to name the sensors. If a field is empty or if it is not available, PRTG adds an empty string to the name. By default, the port name template is ([port]) [ifalias] [ifsensor], which creates a name like (001) Ethernet1 Traffic. You can use and combine any field names that are available at an OID of your device, for example:</p> <ul style="list-style-type: none"> ▪ [port]: The port number of the monitored interface. ▪ [ifalias]: The 'alias' name for the monitored interface as specified by a network manager, providing a non-volatile handling. ▪ [ifname]: The textual name of the monitored interface as assigned by the local device. ▪ [ifdescr]: A textual string containing information about the monitored device or interface, for example, manufacturer, product name, or version. ▪ [ifspeed]: An estimate of the monitored interface's current bandwidth (Kbit/s). ▪ [ifsensor]: The type of the sensor, this is Traffic or RMON. This helps to differentiate between SNMP Traffic ³⁰⁹⁴ and SNMP RMON ³⁰²¹ sensors.






Setting	Description
Port Name Update	<p> For more information about SNMP sensor names, see the Knowledge Base: How can I change the defaults for names automatically generated for new SNMP sensors?</p> <p>Select how PRTG reacts if you change the names of ports in your physical device (for example, a switch or router):</p> <ul style="list-style-type: none"> ▪ Keep port names (use this if you edit the names in PRTG): Do not automatically adjust sensor names. This is the best option if you want to manually change names in PRTG. ▪ Automatically update sensor names if port names change in the device: If PRTG detects port name changes in your physical device, it tries to automatically adjust the sensor names accordingly. <p> For more information about automatic name updates, see the Knowledge Base: Automatically update port name and number for SNMP Traffic sensors when the device changes them</p>
Port Identification	<p>Select the field that PRTG uses for SNMP interface identification:</p> <ul style="list-style-type: none"> ▪ Automatic identification (recommended): Try the ifAlias field first to identify an SNMP interface and then try ifDescr. <ul style="list-style-type: none">  PRTG does not automatically try ifName. ▪ Use ifAlias: For most devices, ifAlias is the best field to use for unique interface names. ▪ Use ifDescr: Use this option if the port order of your device changes after a restart, and if no ifAlias field is available. For example, this is the best option for Cisco ASA devices. <ul style="list-style-type: none">  If you use this option, it is important that your device returns unique interface names in the ifDescr field. ▪ Use ifName: You can also use this option if no unique ifAlias is available. <ul style="list-style-type: none">  If you use this option, it is important that your device returns unique interface names in the ifName field. ▪ Do not update ports: Use this option to disable the automatic port identification.
Start Interface Index	<p> This setting only applies to SNMP Traffic sensors³⁰⁹⁴ and to Cisco IP SLA sensors⁶⁵⁸¹.</p> <p>Enter the index at which PRTG starts to query the interface range during sensor creation. Enter 0 for the automatic mode.</p> <p> We recommend that you use the default value.</p>
End Interface Index	<p> This setting only applies to SNMP Traffic sensors³⁰⁹⁴ and to Cisco IP SLA sensors⁶⁵⁸¹.</p>



Setting	Description
	<p>Enter the index at which PRTG stops querying the interface range during sensor creation. Enter 0 for the automatic mode.</p> <p> We recommend that you use the default value.</p>

Proxy Settings for HTTP Sensors

Click  to interrupt the [inheritance](#) .


The proxy settings determine how a sensor connects to a URL. You can enter data for an HTTP proxy server that sensors use when they connect via HTTP or HTTPS.

-  This setting only applies to HTTP sensors and how they monitor. To change the proxy settings for the PRTG core server, see section [Core & Probes](#) .
-  The [SSL Certificate sensor](#)  and the [SSL Security Check sensor](#)  do not support HTTP proxies but you can configure connections via SOCKS proxies in the sensors' settings.

Setting	Description
IP Address/DNS Name	Enter the IP address or Domain Name System (DNS) name of the proxy server. If you leave this field empty, HTTP sensors do not use a proxy.
Port	Enter the port number of the proxy. The default is 8080. Enter an integer value.
User	<p>If the proxy requires authentication, enter the user name for the proxy login.</p> <p> Only basic authentication is available. Enter a string or leave the field empty.</p>
Password	<p>If the proxy requires authentication, enter the password for the proxy login.</p> <p> Only basic authentication is available. Enter a string or leave the field empty.</p>

Scanning Interval

Click  to interrupt the [inheritance](#) .

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails.

Setting	Description
	<p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Cluster Monitoring Exclusion

Click  to interrupt the [inheritance](#).


Setting	Description
Exclude Cluster Nodes	<p>This setting is only visible if you have a cluster.</p> <p>Sometimes you want to keep a cluster node from monitoring the sensors that run on this probe, group, or device, for example, if a device is not reachable from every cluster node. Select the cluster nodes that you do not want to include in sensor scans. By default, all objects underneath the probe inherit this setting.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.



Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)

Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To close an active one-time maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. <p>i You do not trigger a status change by dependency if you manually pause a master sensor or if you pause it by schedule.</p> <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>

Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p>


Access Rights

Click  to interrupt the [inheritance](#)^[142].

Setting	Description
User Group Access	<p>Select the user groups^[4219] that have access to the object. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the object. The object neither shows up in lists nor in the device tree. <ul style="list-style-type: none">  There is one exception: If a user in this user group has access to a child object, the parent object is visible in the device tree but users in this user group cannot access it. ▪ Read access: Users in this group can see the object and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the object, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the object, view its monitoring results, edit its settings, and edit its access rights settings. <p>To automatically set all child objects to inherit this object's access rights, enable the Revert children's access rights to inherited option.</p> <p> For more details on access rights, see section Access Rights Management^[153].</p>


Channel Unit Configuration


Click  to interrupt the [inheritance](#)^[142].

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Advanced Network Analysis

Click  to interrupt the [inheritance](#)^[142].

Setting	Description
Unusual Detection	<p>Select if you want to use the unusual detection^[4188] for sensors:</p> <ul style="list-style-type: none"> ▪ Enabled: Activate the unusual detection for this object and, by default, for all objects underneath in the object hierarchy^[138]. Sensors that are affected by this setting show the Unusual status if PRTG detects unusual activity. ▪ Disabled: Do not activate the unusual detection. PRTG ignores unusual values for sensors that are affected by this setting. These sensors do not show the Unusual status. <p> You can configure the behavior of the unusual detection or completely disable it in the system settings^[4188].</p>
Similar Sensors Detection	<p>Select if you want to activate the similar sensors^[215] analysis:</p> <ul style="list-style-type: none"> ▪ Enabled: Activate the similar sensors detection for this object and, by default, for all objects underneath in the object hierarchy. PRTG considers all sensors that are affected by this setting during the similarity analysis. ▪ Disabled: Do not the activate the similar sensors detection. PRTG does not consider sensors that are affected by this setting during the similarity analysis.

Setting	Description
	<p>i You can configure the depth of the analysis of the similar sensors detection or completely disable it in the system settings ⁴¹⁹⁰.</p>
System Information	<p>Select if you want to retrieve and show system information ²³¹ for your devices:</p> <ul style="list-style-type: none"> ▪ Enabled: Activate the system information feature for this object and, by default, for all objects underneath in the hierarchy. ▪ Disabled: Do not activate the system information feature. <p>i The System Information feature is enabled by default. To retrieve the data, PRTG automatically uses the credentials for Windows systems ⁴⁵² and the credentials for SNMP devices ⁴⁵⁵ that you entered in the device settings or that the device inherits ¹³⁸ from a parent object like the root group. Consider this when you monitor devices that are outside of your local network, especially when you use SNMP v1 or SNMP v2c, which do not provide encryption.</p> <p> This setting is not available on the hosted probe of a PRTG Hosted Monitor instance.</p>

Administrative Probe Settings

Define the IP address to use for outgoing monitoring requests.

- If more than one IP is available on the system, you can specify the IP address that PRTG uses for the outgoing monitoring requests of certain sensors.
 - This setting is for sensors that use the following connection types: HTTP, Domain Name System (DNS), File Transfer Protocol (FTP), Internet Message Access Protocol (IMAP), Post Office Protocol version 3 (POP3), port, remote desktop, Simple Mail Transfer Protocol (SMTP), and Simple Network Management Protocol (SNMP).
 - The setting is valid for all monitoring requests that this probe sends.
 - This setting is useful for devices that expect a certain IP address when they are queried.
 - The default setting is auto. PRTG automatically selects an IP address.
- i** This feature does not support all sensors for technical reasons.
- i** If you change this setting, some sensors might stop working. For example, sensors might show the Down status if the selected IP address is blocked on the way to or directly on the monitored device.


Setting	Description
Outgoing IPv4	Define the IP address for outgoing requests that use the IPv4 protocol. The list shows all available IP addresses on the system. Choose a specific IP address or select auto.


Setting	Description
Outgoing IPv6	<p>Define the IP address for outgoing requests that use the IPv6 protocol. The list shows all available IP addresses on the system. Choose a specific IP address or select auto.</p> <p>■ For more information, see section IPv6 Support^[161].</p>
Cluster Connectivity	<p>This setting is only visible if you have a cluster^[135].</p> <p>Define if the remote probe connects to all cluster nodes or only to the primary master node:</p> <ul style="list-style-type: none"> ▪ Remote probe sends data only to primary master node: The remote probe only connects to the primary master node. You are not able to review monitoring data on failover nodes. Consider this option if you have bandwidth limitations in your network or if the remote probe cannot access your failover nodes. ▪ Remote probe sends data to all cluster nodes: The remote probe connects to all cluster nodes and sends monitoring data to the failover nodes in addition to the primary master node. The remote probe is visible on all of your cluster nodes as soon as it automatically connects to the correct IP addresses and ports of the failover nodes. If the primary master node fails, you can still see monitoring data of the remote probe. <p>i PRTG does not notify you if a remote probe is disconnected from a cluster node. Therefore, explicitly check on a cluster node if remote probes are connected (for example, via the device tree in the PRTG web interface on a cluster node).</p>

Scheduled Restart Settings

☁ This setting is not available on the hosted probe of a PRTG Hosted Monitor instance.

Setting	Description
Restart Options	<p>Define if you want to schedule an automatic restart:</p> <ul style="list-style-type: none"> ▪ No scheduled system or service restart: Do not automatically perform a scheduled restart of services. We recommend that you manually restart the PRTG core server system every few weeks. You can initiate a restart of the PRTG probe service in the Administrative Tools^[422] in the PRTG web interface. ▪ Scheduled restart of PRTG services: Restart the PRTG probe service on the probe system. If you select this option on the local probe, the PRTG core server service restarts as well. Define a schedule under Restart Schedule.

Setting	Description
	<ul style="list-style-type: none"> ▪ Scheduled system restart (recommended): Define a schedule under Restart Schedule. We recommend that you restart probe systems once a month for best performance.
Restart Schedule	<p>This setting is only visible if you select a schedule option above. Choose how often you want to restart the PRTG probe service or the probe system:</p> <ul style="list-style-type: none"> ▪ Once per week: Select a day and a time below. ▪ Once per month (recommended): Select a day of the month and a time below.
Specify Day	<p>This setting is only visible if you select a schedule option above. Select a day of the week (Monday to Sunday) or month (1st to 30th or Last). If you select Last, PRTG restarts the PRTG core server system on the last day of the month, regardless of how many days the month has.</p>
Specify Hour	<p> You get a Windows warning message 10 minutes before the restart to inform you about the restart if you are logged in to PRTG. The actual restart time can differ by up to 30 minutes from the time you enter here.</p>

 Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>

How do I obtain credentials and set permissions for the Microsoft 365 sensors?

- <https://kb.paessler.com/en/topic/88462>

How do I obtain credentials and create custom roles for the Microsoft Azure sensors?

- <https://kb.paessler.com/en/topic/88625>

What is the Overflow Values setting in the SNMP Compatibility Options?

- <https://kb.paessler.com/en/topic/43503>












How can I change the defaults for names automatically generated for new SNMP sensors?

- <https://kb.paessler.com/en/topic/7363>

Automatically update port name and number for SNMP Traffic sensors when the device changes them

- <https://kb.paessler.com/en/topic/25893>

Device and Sensor Setup

- [Auto-Discovery](#)  296
- [Create Objects Manually](#)  299
- [Manage Device Tree](#)  364
- [Root Group Settings](#)  366
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- [Group Settings](#)  413
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- [Notification Triggers Settings](#)  3987

7.6 Group Settings

The following settings are available on the Settings tab of a group.

- ❗ This documentation does not refer to the settings of the root group. For more information, see section [Root Group Settings](#) ^[366].
- ❗ We recommend that you define as many settings as possible in the [root group settings](#) ^[366] so that you can inherit them to all other objects in the [object hierarchy](#) ^[138].
- ❗ This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

In this section:

- [Basic Group Settings](#) ^[414]
- [Device Identification and Auto-Discovery](#) ^[414]
- [Location](#) ^[420]
- [Credentials for Windows Systems](#) ^[421]
- [Credentials for Linux/Solaris/macOS \(SSH/WBEM\) Systems](#) ^[421]
- [Credentials for VMware/XenServer](#) ^[423]
- [Credentials for SNMP Devices](#) ^[424]
- [Credentials for Database Management Systems](#) ^[426]
- [Credentials for AWS](#) ^[427]
- [Credentials for Dell EMC](#) ^[428]
- [Credentials for Microsoft 365](#) ^[428]
- [Credentials for Microsoft Azure](#) ^[429]
- [Credentials for MQTT](#) ^[429]
- [Credentials for OPC UA](#) ^[430]
- [Credentials for Soffico Orchestra](#) ^[432]
- [Credentials for Veeam](#) ^[432]
- [Windows Compatibility Options](#) ^[433]
- [SNMP Compatibility Options](#) ^[434]
- [Proxy Settings for HTTP Sensors](#) ^[437]
- [Scanning Interval](#) ^[438]
- [Schedules, Dependencies, and Maintenance Windows](#) ^[439]
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- [Advanced Network Analysis](#) ^[443]

- [Number of Sensors Limitation](#)^[444]
- [More](#)^[444]
- [Device and Sensor Setup](#)

Basic Group Settings

Setting	Description
Group Name	<p>Enter a meaningful name to identify the group. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Status	<p>Select the monitoring status of the group:</p> <ul style="list-style-type: none"> ▪ Started: Monitor the group. ▪ Paused: Pause monitoring for the group. All sensors on all devices in the group are in the Paused status^[256] until you change this setting.
Parent Tags	<p>Shows the tags^[145] that this group inherits^[145] from its parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>
Priority	<p>Select a priority^[253] for the group. This setting determines the position of the group in lists. The highest priority is at the top of a list. You can choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

Device Identification and Auto-Discovery

Setting	Description
Auto-Discovery Level	Select the level of detail for the auto-discovery ^[296] :



Setting	Description
	<ul style="list-style-type: none"> ▪ No auto-discovery: Select this option if you only want to manually create devices and sensors. ▪ Standard auto-discovery (recommended): Create a set of standard sensors for standard monitoring. This option works fine for most installations. ▪ Detailed auto-discovery: Create all standard sensors and additional sensors from detailed variants of device templates. As a result, you might get many sensors. This option is suitable for small network segments and whenever you want to monitor the maximum number of sensors available. ▪ Auto-discovery with specific device templates: Customize the auto-discovery and select or combine standard, detailed, and custom device templates. Select one or more templates from the Devices Templates list. <p>i Auto-discoveries can be resource intensive. They are primarily intended for devices on the same network as your probes.</p>
Device Templates	<p>This setting is only visible if you select Auto-discovery with specific device templates above. Select one or more device templates by adding a check mark in front of the template name.</p> <p>i You can also select all items or cancel the selection by using the check box in the table header.</p> <p>PRTG uses the device templates that you select for the auto-discovery on the device. Choose from:</p> <ul style="list-style-type: none"> ▪ ADSL ▪ Amazon CloudWatch ▪ Buffalo TeraStation NAS ▪ Cisco ASA VPN ▪ Cisco Device (Generic) ▪ Dell EqualLogic ▪ Dell MDi Disk ▪ DNS Server ▪ Environment Jakarta ▪ Environment Poseidon ▪ FTP Server ▪ Generic Device (Ping Only) ▪ Generic Device (SNMP Enabled) ▪ Generic Device (SNMP Enabled, Detailed)

Setting	Description
	<ul style="list-style-type: none">▪ HTTP Web Server▪ Hyper-V Host Server▪ IPMI-enabled Device▪ Juniper NS Device▪ Linux/UNIX Device (SNMP or SSH Enabled)▪ Mail Server (Generic)▪ Mail Server (MS Exchange)▪ Microsoft SharePoint 2010▪ NAS LenovoEMC▪ NAS QNAP▪ NAS Synology▪ NetApp▪ NTP Server▪ Printer (HP)▪ Printer (Generic)▪ RDP Server▪ RMON-compatible Device▪ Server (Cisco UCS)▪ Server (Compaq/HP Agents)▪ Server (Dell)▪ Server (Fujitsu)▪ Server (IBM)▪ SonicWall▪ SSL Security Check▪ Switch (Cisco Catalyst)▪ Switch (Cisco IOS Based)▪ Switch (HP Procurve)▪ UNIX/Linux Device▪ UPS Health (APC)▪ UPS Health (Generic)▪ UPS Health (Liebert)▪ VMware ESXi / vCenter Server


Setting	Description
	<ul style="list-style-type: none"> ▪ Web Server ▪ Windows (Detailed via WMI) ▪ Windows (via Remote PowerShell) ▪ Windows (via WMI) ▪ Windows IIS (via SNMP) ▪ XenServer Hosts ▪ XenServer Virtual Machines <p>Once the auto-discovery is finished, PRTG creates a new ticket^[240] and lists the device templates that it used to create new sensors.</p>
Schedule	<p>Select when PRTG runs the auto-discovery:</p> <ul style="list-style-type: none"> ▪ Once: Run the auto-discovery only once. PRTG adds new devices and sensors once. If you select this option, you have to manually start the auto-discovery^[297]. ▪ Hourly: Run the auto-discovery for new devices and sensors every 60 minutes. <ul style="list-style-type: none"> ⓘ Use this option with caution. Frequent auto-discoveries might cause performance issues, in particular when PRTG scans large network segments every hour. ▪ Daily: Run the auto-discovery for new devices and sensors every 24 hours. The first auto-discovery runs immediately. All other discoveries start at the time that you define in the Monitoring^[4182] settings, section Auto-Discovery. ▪ Weekly: Run the auto-discovery for new devices and sensors every 7 days. The first auto-discovery runs immediately. All other discoveries start at the time that you define in the Monitoring settings, section Auto-Discovery. <p>ⓘ For performance reasons, PRTG sets Schedule to Once on all devices that the scheduled auto-discovery creates.</p>
IP Address Selection Method	<p>Select how you want to define the IP address range for the auto-discovery:</p> <ul style="list-style-type: none"> ▪ Class C base IP address with start/end (IPv4): Enter an IPv4 class C address range. ▪ List of individual IP addresses and DNS names (IPv4): Enter a list of individual IPv4 addresses or Domain Name System (DNS) names. ▪ IP address and subnet (IPv4): Enter an IPv4 address and subnet mask. ▪ IP address with octet range (IPv4): Enter an IPv4 address range for every IP octet individually. With this, you can define very customizable IP address ranges.

Setting	Description
	<ul style="list-style-type: none"> ▪ List of individual IP addresses and DNS names (IPv6): Enter a list of individual IPv6 addresses or DNS names. ▪ Use computers from the Active Directory (maximum 1000 computers): Search in the Active Directory for computers to perform the auto-discovery. <ul style="list-style-type: none"> ⓘ Make sure that you specify your Active Directory domain in the Core & Probes settings. ⓘ PRTG can only discover subnets with up to 65,536 IP addresses. If you define a range with a higher number of addresses, the discovery stops before it is completed.
IPv4 Base	This setting is only visible if you enable Class C base IP address with start/end (IPv4) above. Enter a class C network as the IP base for the auto-discovery. Enter the first three octets of an IPv4 address, for example, 192.168.0 .
IPv4 Range Start	This setting is only visible if you enable Class C base IP address with start/end (IPv4) above. Enter the IP octet of the class C network (specified above) from which PRTG starts the auto-discovery. This completes the IP base to an IPv4 address. For example, enter 1 to discover from 192.168.0.1 onwards.
IPv4 Range End	This setting is only visible if you enable Class C base IP address with start/end (IPv4) above. Enter the IP octet of the class C network (specified above) at which PRTG stops the auto-discovery. This completes the IP base to an IPv4 address. For example, enter 254 to discover up to 192.168.0.254 .
IPv4/DNS Name List IPv6/DNS Name List	This setting is only visible if you select on of the List of individual IP addresses and DNS names options above. Enter a list of IP addresses or DNS names that the auto-discovery scans. Enter each address on a separate line.
IPv4 and Subnet (IPv4)	This setting is only visible if you enable IP address and subnet (IPv4) above. Enter an expression in the format address/subnet, for example, 192.168.3.0/255.255.255.0 . You can also use the short form like 192.168.3.0/24 . PRTG scans the complete host range (without network and broadcast address) that is defined by the IP address and the subnet mask.
IP Address with Octet Range	This setting is only visible if you enable IP address with octet range (IPv4) above. Enter an expression in the format a1.a2.a3.a4, where a1 , a2 , a3 , and a4 are each a number between 0-255, or a range with two numbers and a hyphen like 1-127 . PRTG calculates all permutations of all ranges. For example, 10.0.1-10.1-100 results in 1,000 addresses that PRTG scans during the auto-discovery.

Setting	Description
Organizational Unit	<p>This setting is only visible if you enable Use computers from the Active Directory (maximum 1000 computers) above. Enter an organizational unit (OU) to restrict the Active Directory search to computers that are part of this OU. For top-level OUs, use the distinguished name (DN) format without OU= and without the domain components (DCs). If you leave this field empty, there are not any restrictions.</p> <p>Example:</p> <ul style="list-style-type: none"> For the DN OU=Domain Controllers,DC=example,DC=com, enter only Domain Controllers. <p>If you have sub-OUs, use the DN format without the leading OU= and without the DCs.</p> <p>Examples:</p> <ul style="list-style-type: none"> For the DN OU=webserver,OU=production,DC=example,DC=com, enter only webserver,OU=production. For the DN OU=intranet,OU=webserver,OU=production,DC=example,DC=com, enter only intranet,OU=webserver,OU=production. <p>i Make sure that the OU contains computer accounts. If the OU is empty, you receive an error message.</p> <p>i Do not enter the domain components. PRTG automatically uses the domain components from the domain name you enter in the Core & Probes ⁴²⁰⁷ settings.</p>
Name Resolution	<p>Select how to monitor newly discovered devices. This only affects new devices. This does not change the setting for other devices. Depending on your selection, the IP Address/DNS Name field of an added device ⁴⁴⁷ shows the DNS name or IP address that PRTG uses to access the target device. Choose between:</p> <ul style="list-style-type: none"> Use DNS names (recommended): Monitor newly discovered devices via their DNS names (if available). We recommend that you use this option. Use IP addresses: Monitor newly discovered devices via their IP addresses. <p>i This setting does not affect how PRTG shows the devices in the device tree.</p>
Device Rescan	<p>Select how to handle known devices:</p> <ul style="list-style-type: none"> Skip auto-discovery for existing devices/IP addresses (recommended): Do not rescan existing devices or IP addresses. PRTG only adds devices with new IP addresses or DNS names. PRTG does not add devices that that already exist in your configuration for example, in other groups. We recommend that you use this option.

Setting	Description
	<ul style="list-style-type: none"> Perform auto-discovery for existing devices/IP addresses: Rescan devices that have existing IP addresses with every auto-discovery. PRTG adds devices that already exist in other groups to this group and runs the auto-discovery on the newly added devices. <ul style="list-style-type: none">  The auto-discovery does not run on devices that already exist in the group. If you want to run the auto-discovery for these devices, you have to manually start the auto-discovery on them.  In certain cases, the IP resolution might not work and might result in PRTG not adding a device if it has the same local IP address as it does in a different LAN.


Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Location

Click  to interrupt the [inheritance](#)^[142].

Setting	Description
Location (for Geo Maps)	<p>If you want to use Geo Maps^[4026], enter a location in the first line. Geographical maps then display objects like devices or groups with a status icon using a color code similar to the sensor status icons^[197] (green–yellow–orange–red). You can enter a full postal address, city and country only, or latitude and longitude. It is possible to enter any text before, between, and after the coordinates, as PRTG automatically parses latitude and longitude, for example, enter 49.452778 11.077778, or enter 49.452778 any 11.077778 text.</p> <p>A minus sign (-) in the first line hides an object from a geographical map. In this case, you can enter location information in line two and following.</p> <p>You can define a specific label for each location. Enter a string denoting the label in the first line and provide the coordinates in the second line. This geographical marker then shows the object with the label in the geographical map.</p> <ul style="list-style-type: none">  The preview map always has a road map layout regardless of the map layout you set in User Interface^[4175].




Credentials for Windows Systems








Click  to interrupt the [inheritance](#) ¹⁴².



Setting	Description
Domain or Computer Name	<p>Enter the domain or computer name of the user account with which you want to access the Windows system. PRTG uses this account for Windows Management Instrumentation (WMI) sensors and other Windows sensors.</p> <p>If you want to use a Windows local user account on the target device, enter the computer name. If you want to use a Windows domain user account (recommended), enter the domain name. PRTG automatically adds a prefix to use the NT LAN Manager (NTLM) protocol if you do not explicitly define it. Do not leave this field empty.</p>
User Name	Enter the user name for access to the Windows system. Usually, you use credentials with administrator rights.
Password	Enter the password for access to the Windows system. Usually, you use credentials with administrator rights.

Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems

Click  to interrupt the [inheritance](#) ¹⁴².

Setting	Description
User Name	Enter the user name for access to the Linux/Solaris/macOS system via Secure Shell (SSH) and Web-based Enterprise Management (WBEM). Usually, you use credentials with administrator rights.
Authentication Method	<p>Select the authentication method for login:</p> <ul style="list-style-type: none"> ▪ Password: Provide the password for the login. ▪ Private key: Provide an RSA private key for authentication. <p> PRTG can only handle keys in the OpenSSH format that are not encrypted. You cannot use password-protected keys.</p> <p> PRTG only supports RSA keys. It does not support DSA keys.</p> <p> For details, see section Monitoring via SSH ⁴³⁰¹.</p>
Password	This setting is only visible if you select Password above. Enter a password for access to the Linux/Solaris/macOS system via SSH and WBEM. Usually, you use credentials with administrator rights.


Setting	Description
Private Key	<p>This setting is only visible if you select Private key above. Paste the entire RSA private key, including the BEGIN and END lines. Make sure that a corresponding public key exists on the target device.</p> <ul style="list-style-type: none">  PRTG can only handle keys in the OpenSSH format that are not encrypted. You cannot use password-protected keys.  PRTG only supports RSA keys. It does not support DSA keys.  For details, see section Monitoring via SSH⁴³⁰¹.  If you do not insert a private key for the first time but if you want to change the private key, you need to restart the PRTG core server service⁴²²⁵ for the private key change to take effect.
WBEM Protocol	<p>Select the protocol that you want to use for the connection to the system via WBEM:</p> <ul style="list-style-type: none"> ▪ HTTP: Use an unsecure connection for WBEM. ▪ HTTPS (default): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection for WBEM. <p> This setting is only relevant if you use WBEM sensors.</p>
WBEM Port	<p>Select if you want to use one of the default ports for the connection to the system via WBEM or if you want to set a custom port:</p> <ul style="list-style-type: none"> ▪ Default: Use one of the default ports. The default port for unsecure connections is 5988 and the default port for secure connections is 5989. ▪ Custom: Use a custom port. <p> This setting is only relevant if you use WBEM sensors.</p>
Custom WBEM Port	<p>This setting is only visible if you select Custom above. Enter a custom WBEM port. Enter an integer value.</p>
SSH Port	<p>Enter the port for SSH connections. Enter an integer value. The default port is 22.</p> <p> By default, PRTG automatically uses this setting for all SSH sensors⁴⁶¹² unless you define a different port number in the sensor settings.</p>
SSH Rights Elevation	<p>Select the rights that you want to use to run the command on the target system:</p> <ul style="list-style-type: none"> ▪ Run the command as the connecting user (default): Use the rights of the user who establishes the SSH connection. ▪ Run the command as a different user using 'sudo' (with password): Use the rights of a different user with a password required for sudo to run commands on the target system, for example, as a root user.

Setting	Description
	<ul style="list-style-type: none"> Run the command as a different user using 'sudo' (without password): Use the rights of a different user without a password required for sudo to run commands on the target system, for example, as a root user. Run the command as a different user using 'su': Use the rights of a different user with su to run commands on the target system.
Target User Name	This setting is only visible if you select an option that includes sudo or su above. Enter a user name to run the specified command on the target system as a different user than the root user. If you leave this field empty, you run the command as a root user. Make sure that you set the Linux password even if you use a public key or a private key for authentication. This is not necessary if the user is allowed to run the command without a password.
Password	This setting is only visible if you select an option that includes sudo or su with password above. Enter the password to run the sudo command or the su command.
SSH Connection Mode	<p>Select the connection mode that you want to use to access data with SSH sensors ⁴³⁰⁷:</p> <ul style="list-style-type: none"> Default (recommended): This is the default monitoring method for SSH sensors. It provides the best performance and security. Compatibility mode (deprecated): Use this mode only if the default mode does not work on the target system. The compatibility mode is the SSH engine that PRTG used in previous versions and it is deprecated. <p> We strongly recommend that you use the default SSH connection mode.</p> <p> You can also individually select the SSH connection mode for each SSH sensor in the sensor settings.</p>

Credentials for VMware/XenServer


Click  to interrupt the [inheritance](#) ¹⁴².

Setting	Description
User Name	Enter the user name for access to VMware ESXi, vCenter Server, or Citrix XenServer. Usually, you use credentials with administrator rights.
Password	Enter the password for access to VMware ESXi, vCenter Server, or Citrix XenServer. Usually, you use credentials with administrator rights.





Setting	Description
	<p> Single sign-on (SSO) passwords for vSphere do not support special characters. For details, see the VMware sensors sections.</p>
VMware Protocol	<p>Select the protocol for the connection to VMware ESXi, vCenter Server, or Citrix XenServer:</p> <ul style="list-style-type: none"> ▪ HTTPS (recommended): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. ▪ HTTP: Use an unsecure connection.
Session Handling	<p>Select if you want to reuse a session for VMware sensors:</p> <ul style="list-style-type: none"> ▪ Reuse a session for multiple scans (recommended): Select this option if you want a VMware sensor to reuse a single session for multiple sensor scans to query data. With this option, the sensor does not need to log in and out for each sensor scan. We recommend that you use this option because it reduces network load and log entries on the target device. This can increase performance. ▪ Create a new session for each scan: If you select this option, PRTG does not reuse a session and a VMware sensor has to log in and out for each sensor scan. This can decrease performance.

Credentials for SNMP Devices

Click  to interrupt the [inheritance](#) ¹⁴².

Setting	Description
SNMP Version	<p>Select the Simple Network Management Protocol (SNMP) version for the connection to the target SNMP device:</p> <ul style="list-style-type: none"> ▪ SNMP v1: Use SNMP v1 for the connection. SNMP v1 only offers clear-text data transmission. <ul style="list-style-type: none">  SNMP v1 does not support 64-bit counters. This might result in invalid data when you monitor traffic via SNMP. ▪ SNMP v2c (recommended): Use SNMP v2c for the connection. SNMP v2c also only offers clear-text data transmission but it supports 64-bit counters.






Setting	Description
	<ul style="list-style-type: none"> ▪ SNMP v3: Use SNMP v3 for the connection. SNMP v3 provides secure authentication and data encryption. <ul style="list-style-type: none"> ⓘ SNMP v3 has performance limitations because of the use of encryption. The main limiting factor is CPU power. Also keep in mind that SNMP v3, unlike SNMP v1 and v2c, does not scale with more CPU power. Because of this limitation, PRTG can only handle a limited number of requests per second so that you can use only a limited number of sensors using SNMP v3. If you see an increase in Interval Delay or Open Requests with the Probe Health sensor, distribute the load over multiple probes. SNMP v1 and SNMP v2c do not have this limitation.
Community String	<p>This setting is only visible if you select SNMP v1 or SNMP v2c above. Enter the community string of your device. This is like a clear-text password for simple authentication.</p> <ul style="list-style-type: none"> ⓘ We recommend that you use the default value.
Authentication Method	<p>This setting is only visible if you select SNMP v3 above. Select the authentication method:</p> <ul style="list-style-type: none"> ▪ MD5: Use message-digest algorithm 5 (MD5) for authentication. ▪ SHA: Use Secure Hash Algorithm (SHA) for authentication. <ul style="list-style-type: none"> ⓘ If you do not want to use authentication but you need SNMP v3, for example, because your device requires context, you can leave the Password field empty. In this case, PRTG uses SNMP_SEC_LEVEL_NOAUTH and it entirely deactivates authentication. ⓘ The authentication method you select must match the authentication method of your device.
User Name	<p>This setting is only visible if you select SNMP v3 above. Enter the user name for access to the target SNMP device.</p> <ul style="list-style-type: none"> ⓘ The user name that you enter must match the user name of your device.
Password	<p>This setting is only visible if you select SNMP v3 above. Enter the password for access to the target SNMP device.</p> <ul style="list-style-type: none"> ⓘ The password that you enter must match the password of your device.
Encryption Type	<p>This setting is only visible if you select SNMP v3 above. Select an encryption type:</p> <ul style="list-style-type: none"> ▪ DES: Use Data Encryption Standard (DES) as the encryption algorithm. ▪ AES: Use Advanced Encryption Standard (AES) as the encryption algorithm.

Setting	Description
	<ul style="list-style-type: none">  Net-SNMP does not support AES-192 and AES-256. They do not have RFC specifications.  The encryption type that you select must match the encryption type of your device.
Encryption Key	<p>This setting is only visible if you select SNMP v3 above. Enter an encryption key. If you provide a key, PRTG encrypts SNMP data packets with the encryption algorithm that you selected above. Enter a string or leave the field empty.</p> <ul style="list-style-type: none">  The encryption key that you enter must match the encryption key of your device. If the encryption keys do not match, you do not get an error message.
Context Name	<p>This setting is only visible if you select SNMP v3 above. Enter a context name only if the configuration of the device requires it. Context is a collection of management information that is accessible by an SNMP device. Enter a string.</p>
SNMP Port	<p>Enter the port for the connection to the SNMP target device. Enter an integer value. The default port is 161.</p> <ul style="list-style-type: none">  We recommend that you use the default value.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p>

Credentials for Database Management Systems

Click  to interrupt the [inheritance](#) .

The settings you define in this section apply to the following sensors:

- [ADO SQL v2 sensor](#) 
- [Microsoft SQL v2 sensor](#) 
- [MySQL v2 sensor](#) 
- [Oracle SQL v2 sensor](#) 
- [PostgreSQL sensor](#) 

Setting	Description
Port	Select the port that PRTG uses for connections to the monitored databases:

Setting	Description
	<ul style="list-style-type: none"> ▪ Default (recommended): PRTG automatically determines the type of the database and uses the corresponding default port to connect. PRTG uses the following default ports: <ul style="list-style-type: none"> ▫ Microsoft SQL: 1433 ▫ MySQL: 3306 ▫ Oracle SQL: 1521 ▫ PostgreSQL: 5432 ▪ Custom port for all database sensors: Select this option if your database management systems do not use the default ports. Enter a custom port for database connections below. <p>i PRTG uses this custom port for all database sensors and for connections to all your databases.</p>
Custom Port	<p>Enter a custom port for database connections. Enter an integer value.</p> <p>i PRTG uses this custom port for all database sensors and for connections to all your databases.</p>
Authentication Method	<p>Select the authentication method for the connection to the Structured Query Language (SQL) database:</p> <ul style="list-style-type: none"> ▪ Windows authentication with impersonation: PRTG uses the Windows credentials that you define in settings that are higher in the object hierarchy¹³⁸, for example, in the settings of the parent device; for the database connection. <p>i The user whose credentials PRTG uses needs to have permission to log in to the probe system with a database sensor. This is necessary for the impersonation.</p> <ul style="list-style-type: none"> ▪ SQL server authentication: Use explicit credentials for database connections. Enter a user name and password below.
User Name	<p>This setting is only visible if you select SQL server authentication above. Enter the user name for the database connection.</p>
Password	<p>This setting is only visible if you select SQL server authentication above. Enter the password for the database connection.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p>

Credentials for AWS

Click  to interrupt the [inheritance](#)¹⁴².

For more information about the permissions that are necessary to query the AWS API, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)

Setting	Description
Access Key	Enter the Amazon Web Services (AWS) access key.
Secret Key	Enter the AWS secret key.

Credentials for Dell EMC

Click  to interrupt the [inheritance](#)^[142].


Setting	Description
User	Enter the user name for access to the Dell EMC system.
Password	Enter the password for access to the Dell EMC system.
Port	Enter the port for the connection to the Dell EMC system. The default port for secure connections is 443 .

Credentials for Microsoft 365

Click  to interrupt the [inheritance](#)^[142].


 The [Microsoft 365 Service Status sensor](#)^[1546] and the [Microsoft 365 Service Status Advanced sensor](#)^[1557] use the following credentials to authenticate with Azure Active Directory (Azure AD).


For more information about the credentials and the permissions that are necessary to use the Microsoft 365 sensors, see the Knowledge Base: [How do I obtain credentials and set permissions for the Microsoft 365 sensors?](#)


Setting	Description
Tenant ID	Enter the Azure AD tenant ID.  A tenant ID must be a 32-digit sequence in hexadecimal notation.
Client ID	Enter the Azure AD client ID.
Client Secret	Enter the Azure AD client secret.

Credentials for Microsoft Azure

Click  to interrupt the [inheritance](#)¹⁴².

 The [Microsoft Azure Subscription Cost sensor](#)¹⁵⁶⁰ and the [Microsoft Azure Virtual Machine sensor](#)¹⁵⁸² use the following credentials to authenticate with Azure AD.




 For more information about the credentials and permissions that are necessary use the Microsoft Azure sensors, see the Knowledge Base: [How do I obtain credentials and create custom roles for the Microsoft Azure sensors?](#)

Setting	Description
Tenant ID	Enter the Azure AD tenant ID.  A tenant ID must be a 32-digit sequence in hexadecimal notation.
Client ID	Enter the Azure AD client ID.
Client Secret	Enter the Azure AD client secret.
Subscription ID	Enter the Azure AD subscription ID.

Credentials for MQTT

Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
Authentication Method	Select if you want to connect without credentials or define credentials for access to the MQTT broker. <ul style="list-style-type: none"> None (default): Connect without credentials. User name and password: Define credentials for the connection.
User	This setting is only visible if you select User name and password above. Enter the user name for access to the Message Queue Telemetry Transport (MQTT) broker.
Password	This setting is only visible if you select User name and password above. Enter the password for access to the MQTT broker.
Port	Enter the port for the connection to the MQTT broker. The default port for secure connections is 8883 and the default port for unsecure connections is 1883 .

Setting	Description
Transport-Level Security	<p>Select if you want to use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection:</p> <ul style="list-style-type: none"> Do not use transport-level security: Establish the connection without connection security. Use transport-level security: Establish the connection with the strongest SSL/TLS method that the target device provides.
Server Authentication	<p>This setting is only visible if you select Use transport-level-security above. Select if you want to use a certificate for server authentication.</p> <ul style="list-style-type: none"> Disable (default): Do not use a certificate for server authentication. Enable: Use a certificate for server authentication.
CA Certificate	<p>Paste the certificate authority (CA) certificate for the verification of the MQTT broker.</p> <p> The certificate must be in Privacy-Enhanced Mail (PEM) format.</p>
Client Authentication	<p>This setting is only visible if you select Use transport-level-security above. Select if you want to use a certificate for client authentication.</p> <ul style="list-style-type: none"> Disable (default): Do not use a certificate for client authentication. Enable: Use a certificate for client authentication.
Client Certificate	<p>Paste the certificate that you created for authenticating the sensor against the MQTT broker.</p> <p> The certificate must be in PEM format.</p>
Client Key	<p>Enter the client key for access to the MQTT broker.</p> <p> The client key must be in PEM format and it must be encrypted using the Client Key Password.</p>
Client Key Password	<p>Enter the password for the client key.</p>

Credentials for OPC UA

Click  to interrupt the [inheritance](#) .

Setting	Description
Port	<p>Enter the port for the connection to the OPC Unified Architecture (OPC UA) server. The default port for secure connections is 4840.</p>

Setting	Description
Server Path	Enter the path of the OPC UA server endpoint if you run more than one server under the same IP address or DNS name.
Security Mode	Select if you want to use encryption: <ul style="list-style-type: none"> ▪ None (default): Do not use encryption. ▪ Sign: Sign messages between the sensor and the OPC UA server. ▪ Sign & Encrypt: Sign and encrypt messages between the sensor and the OPC UA server.
Security Policy	This setting is only visible if you select Sign or Sign & Encrypt above. Select if you want to use a security policy and define which policy you want to use: <ul style="list-style-type: none"> ▪ None (default): Do not use a security policy. ▪ Basic256Sha256: Use the Basic256Sha256 security policy. ▪ Basic256: Use the Basic256 security policy.
Client Certificate	Paste the certificate that you created for authenticating the sensor against the OPC UA server. <p>i The certificate must meet the following requirements:</p> <ul style="list-style-type: none"> ▪ The key size must be 2048-bit. ▪ The secure hash algorithm must be SHA256. ▪ DataEncipherment must be part of the KeyUsage certificate extension. ▪ A uniform resource indicator (URI) must be set in subjectAltName. ▪ The certificate must be in Privacy-Enhanced Mail (PEM) format.
Client Key	Enter the client key for access to the OPC UA server. <p>i The client key must be in PEM format and it must be encrypted using the Client Key Password.</p>
Client Key Password	Enter the password for the client key.
Authentication Method	Select if you want to connect without credentials or define credentials for access to the OPC UA server: <ul style="list-style-type: none"> ▪ Anonymous (default): Connect without credentials. ▪ Username/Password: Define credentials for the connection. <p>i Most OPC UA servers do not support Username/Password authentication without a client certificate. To use Username/Password authentication, select Sign or Sign & Encrypt under Security Mode and Basic256Sha256 or Basic256 under Security Policy and enter the Client Certificate, Client Key, and Client Key Password that you want to use.</p>

Setting	Description
User	This setting is only visible if you select Username/Password above. Enter the user name for access to the OPC UA server.
Password	This setting is only visible if you select Username/Password above. Enter the password for access to the OPC UA server.

Credentials for Soffico Orchestra

Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
Authentication Method	Select if you want to connect without credentials or define credentials for access to the Orchestra platform: <ul style="list-style-type: none"> None (default): Connect without credentials. Username/Password: Define credentials for the connection.
User	This setting is only visible if you select Username/Password above. Enter the user name for access to the Orchestra platform.
Password	This setting is only visible if you select Username/Password above. Enter the password for access to the Orchestra platform.
Timeout (Sec.)	Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).
Port	Enter the port for the connection to the Orchestra platform. The default port for secure connections is 8443 and the default port for unsecure connections is 8019.
Protocol	Select the protocol that you want to use for the connection to the Orchestra platform: <ul style="list-style-type: none"> HTTPS (default): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. HTTP: Use an unsecure connection.

Credentials for Veeam




Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
User	Enter the user name for access to the Veeam Backup Enterprise Manager.
Password	Enter the password for access to the Veeam Backup Enterprise Manager.
Port	Enter the port for the connection to the Veeam Backup Enterprise Manager. The default port for secure connections is 9398 .

Windows Compatibility Options

Click  to interrupt the [inheritance](#) ¹⁴².

If you experience problems when you monitor via Windows sensors, use the following compatibility options for troubleshooting.

Setting	Description
Preferred Data Source	<p> This setting only applies to hybrid sensors that use both performance counters and Windows Management Instrumentation (WMI). The setting does not apply to other sensors.</p> <p>Define the method that Windows sensors use to query data:</p> <ul style="list-style-type: none"> ▪ Performance counters and WMI as fallback: Try to query data via performance counters. If this is not possible, establish a connection via WMI. ▪ Performance counters only: Query data via performance counters only. If this is not possible, the sensor returns no data. ▪ WMI only (recommended): Query data via WMI only. If this is not possible, the sensor returns no data. We recommend that you use this option.
Timeout Method	<p>Select the time that the sensor waits for the return of the WMI query before the sensor cancels the query and shows an error message:</p> <ul style="list-style-type: none"> ▪ Use 1.5x scanning interval (recommended): Multiply the scanning interval of the sensor by 1.5 and use the resulting value. ▪ Set manually: Manually enter a timeout value. <p> We recommend that you use the default value.</p> <p> If you experience ongoing timeout errors, try increasing the timeout value.</p>

Setting	Description
Timeout Value (Sec.)	This setting is only visible if you select Set manually above. Enter the time the sensor waits for the return of its WMI query before it cancels it and shows an error message. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).

SNMP Compatibility Options

Click  to interrupt the [inheritance](#) ¹⁴².

If you experience problems when you monitor via Simple Network Management Protocol (SNMP) sensors, use the following compatibility options for troubleshooting.

Setting	Description
SNMP Delay (ms)	<p>Enter the time in milliseconds (ms) that PRTG waits between two SNMP requests. This can increase device compatibility. Enter an integer value. You can define a delay between 0 and 100. PRTG does not support higher delays.</p> <p>i We recommend that you use the default value.</p> <p>i If you experience SNMP connection failures, try increasing the delay.</p>
Failed Requests	<p>Select if an SNMP sensor tries again after a request fails:</p> <ul style="list-style-type: none"> ▪ Retry (recommended): Try again if an SNMP request fails. This can prevent false error messages because of temporary timeout failures. ▪ Do not retry: Do not retry if an SNMP request fails. If you select this option, an SNMP sensor shows a Down status earlier.
Overflow Values	<p>Select how PRTG handles overflow values. Some devices do not correctly handle internal buffer overflows. This can cause false peaks.</p> <ul style="list-style-type: none"> ▪ Ignore overflow values: Ignore overflow values and do not include them in the monitoring data. We recommend that you use this option. ▪ Handle overflow values as valid results: Regard all overflow values as regular data and include them in the monitoring data. <p>i If you experience problems because of strange peaks in your data graphs, change this option. Peaks might indicate that the monitored device resets counters without an overflow. PRTG interprets such behavior as overflow that results in data peaks. Select the option Ignore overflow values in this case. For more details, see the Knowledge Base: What is the Overflow Values setting in the SNMP Compatibility Options?</p>
Zero Values	<p>Select how PRTG handles zero values. Some devices send incorrect zero values. This can cause false peaks.</p>

Setting	Description
32-bit/64-bit Counters	<ul style="list-style-type: none"> ▪ Ignore zero values for delta sensors (recommended): Ignore zero values and do not include them in the monitoring data. We recommend that you use this option. <ul style="list-style-type: none"> ⓘ If you experience problems, try changing this option. ▪ Handle zero values as valid results for delta sensors: Regard all zero values as regular data and include them in the monitoring data. <p>Select the type of traffic counters that PRTG searches for on a device:</p> <ul style="list-style-type: none"> ▪ Use 64-bit counters if available (recommended): The interface scan uses 64-bit traffic counters, if available. This can avoid buffer overflows in the devices <ul style="list-style-type: none"> ⓘ We recommend that you use the default value. <ul style="list-style-type: none"> ⓘ If you experience problems, try changing this option. ▪ Use 32-bit counters only: The interface scan always uses 32-bit traffic counters, even if 64-bit counters are available. This can make monitoring more reliable for some devices.
Request Mode	<p>Select the request method that PRTG uses for SNMP sensors:</p> <ul style="list-style-type: none"> ▪ Use multi get (recommended): Bundle multiple SNMP requests into one request. We recommend that you use this option. <ul style="list-style-type: none"> ⓘ If you experience problems, try changing this option. ▪ Use single get: Use one request for each SNMP value. This can increase compatibility with older devices. <p>ⓘ PRTG uses paging for SNMP requests. This means that if a sensor has to query more than 20 object identifiers (OID), it automatically polls the OIDs in packages of 20 OIDs each.</p>
Walk Mode	<p>Select the kind of SNMP walk that PRTG uses for SNMP sensors:</p> <ul style="list-style-type: none"> ▪ Use GETBULK requests (recommended): Request the next x OIDs in one SNMP request. The default value is 10. It is dynamic based on the response size. <ul style="list-style-type: none"> ⓘ This option only works with devices that support SNMP version v2c or higher. Make sure that you set the correct SNMP Version in the Credentials for SNMP Devices settings of the parent device or inherit it from objects that are higher in the object hierarchy^[138]. ▪ Use GETNEXT requests: Request one OID at a time. This can increase compatibility with older devices or with devices that have insufficient SNMP BULKWALK support.

Setting	Description
Port Name Template	<p>Select how PRTG displays the name of SNMP sensors. Enter a template that uses several variables. When you add new sensors, PRTG scans the interface for available counters at certain OIDs. At each OID, several fields with interface descriptions are usually available. They are different for every device and OID. PRTG uses the information in these fields to name the sensors. If a field is empty or if it is not available, PRTG adds an empty string to the name. By default, the port name template is ([port]) [ifalias] [ifsensor], which creates a name like (001) Ethernet1 Traffic. You can use and combine any field names that are available at an OID of your device, for example:</p> <ul style="list-style-type: none"> ▪ [port]: The port number of the monitored interface. ▪ [ifalias]: The 'alias' name for the monitored interface as specified by a network manager, providing a non-volatile handling. ▪ [ifname]: The textual name of the monitored interface as assigned by the local device. ▪ [ifdescr]: A textual string containing information about the monitored device or interface, for example, manufacturer, product name, or version. ▪ [ifspeed]: An estimate of the monitored interface's current bandwidth (Kbit/s). ▪ [ifsensor]: The type of the sensor, this is Traffic or RMON. This helps to differentiate between SNMP Traffic^[3094] and SNMP RMON^[3021] sensors. <p>■ For more information about SNMP sensor names, see the Knowledge Base: How can I change the defaults for names automatically generated for new SNMP sensors?</p>
Port Name Update	<p>Select how PRTG reacts if you change the names of ports in your physical device (for example, a switch or router):</p> <ul style="list-style-type: none"> ▪ Keep port names (use this if you edit the names in PRTG): Do not automatically adjust sensor names. This is the best option if you want to manually change names in PRTG. ▪ Automatically update sensor names if port names change in the device: If PRTG detects port name changes in your physical device, it tries to automatically adjust the sensor names accordingly. <p>■ For more information about automatic name updates, see the Knowledge Base: Automatically update port name and number for SNMP Traffic sensors when the device changes them</p>
Port Identification	<p>Select the field that PRTG uses for SNMP interface identification:</p> <ul style="list-style-type: none"> ▪ Automatic identification (recommended): Try the ifAlias field first to identify an SNMP interface and then try ifDescr. <ul style="list-style-type: none"> ⓘ PRTG does not automatically try ifName. ▪ Use ifAlias: For most devices, ifAlias is the best field to use for unique interface names.

Setting	Description
	<ul style="list-style-type: none"> ▪ Use ifDescr: Use this option if the port order of your device changes after a restart, and if no ifAlias field is available. For example, this is the best option for Cisco ASA devices. <ul style="list-style-type: none"> ⓘ If you use this option, it is important that your device returns unique interface names in the ifDescr field. ▪ Use ifName: You can also use this option if no unique ifAlias is available. <ul style="list-style-type: none"> ⓘ If you use this option, it is important that your device returns unique interface names in the ifName field. ▪ Do not update ports: Use this option to disable the automatic port identification.
Start Interface Index	<ul style="list-style-type: none"> ⓘ This setting only applies to SNMP Traffic sensors^[3094] and to Cisco IP SLA sensors^[658]. <p>Enter the index at which PRTG starts to query the interface range during sensor creation. Enter 0 for the automatic mode.</p> <ul style="list-style-type: none"> ⓘ We recommend that you use the default value.
End Interface Index	<ul style="list-style-type: none"> ⓘ This setting only applies to SNMP Traffic sensors^[3094] and to Cisco IP SLA sensors^[658]. <p>Enter the index at which PRTG stops querying the interface range during sensor creation. Enter 0 for the automatic mode.</p> <ul style="list-style-type: none"> ⓘ We recommend that you use the default value.



Proxy Settings for HTTP Sensors

Click  to interrupt the [inheritance](#)^[142].

The proxy settings determine how a sensor connects to a URL. You can enter data for an HTTP proxy server that sensors use when they connect via HTTP or HTTPS.



- ⓘ This setting only applies to HTTP sensors and how they monitor. To change the proxy settings for the PRTG core server, see section [Core & Probes](#)^[4203].
- ⓘ The [SSL Certificate sensor](#)^[3302] and the [SSL Security Check sensor](#)^[3315] do not support HTTP proxies but you can configure connections via SOCKS proxies in the sensors' settings.

Setting	Description
IP Address/DNS Name	Enter the IP address or Domain Name System (DNS) name of the proxy server. If you leave this field empty, HTTP sensors do not use a proxy.

Setting	Description
Port	Enter the port number of the proxy. The default is 8080. Enter an integer value.
User	<p>If the proxy requires authentication, enter the user name for the proxy login.</p> <p> Only basic authentication is available. Enter a string or leave the field empty.</p>
Password	<p>If the proxy requires authentication, enter the password for the proxy login.</p> <p> Only basic authentication is available. Enter a string or leave the field empty.</p>

Scanning Interval

Click  to interrupt the [inheritance](#) .

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration  on PRTG on premises installations.</p>



Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Setting	Description
Schedule	Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:

Setting	Description
	<ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. <p>i You do not trigger a status change by dependency if you manually pause a master object or if you pause it by schedule.</p>

Setting	Description
	<p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Setting	Description
User Group Access	<p>Select the user groups ⁴²¹⁹ that have access to the object. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the object. The object neither shows up in lists nor in the device tree. <ul style="list-style-type: none"> ⓘ There is one exception: If a user in this user group has access to a child object, the parent object is visible in the device tree but users in this user group cannot access it. ▪ Read access: Users in this group can see the object and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the object, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the object, view its monitoring results, edit its settings, and edit its access rights settings. <p>To automatically set all child objects to inherit this object's access rights, enable the Revert children's access rights to inherited option.</p> <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>





Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Advanced Network Analysis

Click  to interrupt the [inheritance](#)^[142].

Setting	Description
Unusual Detection	<p>Select if you want to use the unusual detection^[4188] for sensors:</p> <ul style="list-style-type: none"> ▪ Enabled: Activate the unusual detection for this object and, by default, for all objects underneath in the object hierarchy^[138]. Sensors that are affected by this setting show the Unusual status if PRTG detects unusual activity. ▪ Disabled: Do not activate the unusual detection. PRTG ignores unusual values for sensors that are affected by this setting. These sensors do not show the Unusual status. <p> You can configure the behavior of the unusual detection or completely disable it in the system settings^[4188].</p>
Similar Sensors Detection	<p>Select if you want to activate the similar sensors^[215] analysis:</p> <ul style="list-style-type: none"> ▪ Enabled: Activate the similar sensors detection for this object and, by default, for all objects underneath in the object hierarchy. PRTG considers all sensors that are affected by this setting during the similarity analysis. ▪ Disabled: Do not the activate the similar sensors detection. PRTG does not consider sensors that are affected by this setting during the similarity analysis. <p> You can configure the depth of the analysis of the similar sensors detection or completely disable it in the system settings^[4190].</p>
System Information	<p>Select if you want to retrieve and show system information^[231] for your devices:</p> <ul style="list-style-type: none"> ▪ Enabled: Activate the system information feature for this object and, by default, for all objects underneath in the hierarchy. ▪ Disabled: Do not activate the system information feature. <p> The System Information feature is enabled by default. To retrieve the data, PRTG automatically uses the credentials for Windows systems^[452] and the credentials for SNMP devices^[455] that you entered in the device settings or that the device inherits^[138] from a parent object like the root group. Consider this when you monitor devices that are outside of your local network, especially when you use SNMP v1 or SNMP v2c, which do not provide encryption.</p> <p> This setting is not available on the hosted probe of a PRTG Hosted Monitor instance.</p>

Number of Sensors Limitation

Setting	Description
Sensor Limit	<p>This setting allows you to set a limit for the maximum number of sensors in this group, including subgroups. If the amount of sensors exceeds the limitation, PRTG sets the surplus sensors to the Paused status. Choose between:</p> <ul style="list-style-type: none"> ▪ Allow unlimited number of sensors: Do not limit the number of sensors for this group. Any number of sensors are allowed in this group and its subgroups. ▪ Limit number of sensors: Set a limitation for the number of sensors in this group. Only a defined number of sensors are allowed in this group and its subgroups.
Maximum Number of Sensors	<p>This setting is only visible if you select Limit number of sensors in this group above. Define how many sensors are allowed in this group and its subgroups. Sensors that exceed this group sensor limit are set to the Paused status. Enter an integer value.</p> <ul style="list-style-type: none"> ⓘ Sensors that are in the Paused status count for this group limit as well (for example, manually paused sensors or sensors that are paused by dependency or schedule), but not for the number of available sensors in your license. ⓘ Manually paused sensors override the sensor message exceeds group sensor limit.

ⓘ Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>

How do I obtain credentials and set permissions for the Microsoft 365 sensors?

- <https://kb.paessler.com/en/topic/88462>

How do I obtain credentials and create custom roles for the Microsoft Azure sensors?

- <https://kb.paessler.com/en/topic/88625>

What is the Overflow Values setting in the SNMP Compatibility Options?

- <https://kb.paessler.com/en/topic/43503>












How can I change the defaults for names automatically generated for new SNMP sensors?

- <https://kb.paessler.com/en/topic/7363>

Automatically update port name and number for SNMP Traffic sensors when the device changes them

- <https://kb.paessler.com/en/topic/25893>

Device and Sensor Setup

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- [Create Objects Manually](#)  299
- [Manage Device Tree](#)  364
- [Root Group Settings](#)  366
- [Probe Settings](#)  385
- [Group Settings](#)  413
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- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.7 Device Settings

The following settings are available on the Settings tab of a device.

- ❗ We recommend that you define as many settings as possible in the [root group settings](#) so that you can inherit them to all other objects in the [object hierarchy](#).

For device settings, you can also use multi-edit. This enables you to change the settings of many devices at the same time.

■ For more information, see section [Multi-Edit](#).

- ❗ This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.





In this section:

- [Basic Device Settings](#)
- [Additional Device Information](#)
- [Device Identification and Auto-Discovery](#)
- [Location](#)
- [Credentials for Windows Systems](#)
- [Credentials for Linux/Solaris/macOS \(SSH/WBEM\) Systems](#)
- [Credentials for VMware/XenServer](#)
- [Credentials for SNMP Devices](#)
- [Credentials for Database Management Systems](#)
- [Credentials for AWS](#)
- [Credentials for Dell EMC](#)
- [Credentials for Microsoft 365](#)
- [Credentials for Microsoft Azure](#)
- [Credentials for MQTT](#)
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- [Credentials for Soffico Orchestra](#)
- [Credentials for Veeam](#)
- [Windows Compatibility Options](#)
- [SNMP Compatibility Options](#)
- [Proxy Settings for HTTP Sensors](#)
- [Scanning Interval](#)
- [Schedules, Dependencies, and Maintenance Windows](#)
- [Access Rights](#)

- [Channel Unit Configuration](#) ^[473]
- [Advanced Network Analysis](#) ^[474]
- [More](#) ^[475]
- [Device and Sensor Setup](#)

Basic Device Settings

Setting	Description
Device Name	<p>Enter a meaningful name to identify the device. By default, PRTG shows this name in the device tree ^[183], as well as in alarms ^[228], logs ^[237], notifications ^[403], reports ^[409], maps ^[406], libraries ^[407], and tickets ^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Status	<p>Select the monitoring status of the device:</p> <ul style="list-style-type: none"> ▪ Started: Monitor the device. ▪ Paused: Pause monitoring for the device. All sensors on the device are in the Paused status ^[258] until you change this setting.
IP Version	<p>Select the IP protocol that PRTG uses to connect to the device:</p> <ul style="list-style-type: none"> ▪ IPv4: Use IP version 4 for all requests to the device. ▪ IPv6: Use IP version 6 for all requests to the device. <p>i The setting is valid for all sensors that you create on the device.</p>
IPv4 Address/DNS Name	<p>This setting is only visible if you select IPv4 above. Enter the IP address or Domain Name System (DNS) name for the device. Most sensors that you create on this device inherit this setting and try to connect to this address for monitoring.</p> <p>i Some sensors have their own setting for the IP address/DNS name to which they connect.</p>
IPv6 Address/DNS Name	<p>This setting is only visible if you select IPv6 above. Enter the IP address or Domain Name System (DNS) name for the device. Most sensors that you create on this device inherit this setting and try to connect to this address for monitoring.</p> <p>i Some sensors have their own setting for the IP address/DNS name to which they connect.</p>
Parent Tags	<p>Shows tags ^[145] that this device inherits ^[145] from its parent group ^[139] and its parent probe ^[139].</p>

Setting	Description
	<p> This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p> We recommend that you use the default value. You can also add additional tags.</p> <p> It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p> For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>
Priority	<p>Select a priority^[253] for the device. This setting determines the position of the group in lists. The highest priority is at the top of a list. You can choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

Additional Device Information

Setting	Description
Device Icon	Select a device icon. PRTG shows it in the device tree.
Service URL	Specify a URL to open directly when you select Device Tools | Go To Service URL from the context menu ^[268] of the device. For example, you can configure this option to open the address http://www.example.com/service.html . Enter a valid URL or leave the field empty.

Device Identification and Auto-Discovery


Setting	Description
Auto-Discovery Level	<p>Select the level of detail for the auto-discovery^[296]:</p> <ul style="list-style-type: none"> ▪ No auto-discovery: Select this option if you only want to manually create devices and sensors.

Setting	Description
	<ul style="list-style-type: none"> ▪ Standard auto-discovery (recommended): Create a set of standard sensors for standard monitoring. This option works fine for most installations. ▪ Detailed auto-discovery: Create all standard sensors and additional sensors from detailed variants of device templates. As a result, you might get many sensors. This option is suitable for small network segments and whenever you want to monitor the maximum number of sensors available. ▪ Auto-discovery with specific device templates: Customize the auto-discovery and select or combine standard, detailed, and custom device templates. Select one or more templates from the Devices Templates list. <p>i Auto-discoveries can be resource intensive. They are primarily intended for devices on the same network as your probes.</p>
Schedule	<p>This setting is only visible if you select one of the standard, detailed, or custom auto-discovery options above. Define when the auto-discovery runs:</p> <ul style="list-style-type: none"> ▪ Once: Perform the auto-discovery only once. For existing devices, this initiates a one-time sensor update for the selected device. If you select this option, you have to start the auto-discovery manually ^[297]. ▪ Hourly: Perform the auto-discovery for new sensors every 60 minutes. ▪ Daily: Perform the auto-discovery for new sensors every 24 hours. The first auto-discovery runs immediately, all other discoveries start at the time defined in the Auto-Discovery settings section under Setup | System Administration | Monitoring. ▪ Weekly: Perform the auto-discovery for new sensors every 7 days. The first auto-discovery runs immediately, all other discoveries start at the time defined in the Auto-Discovery settings section under Setup | System Administration | Monitoring.
Device Templates	<p>This setting is only visible if you select Auto-discovery with specific device templates above. Select one or more device templates by adding a check mark in front of the template name.</p> <p>i You can also select all items or cancel the selection by using the check box in the table header.</p> <p>PRTG uses the device templates that you select for the auto-discovery on the device. Choose from:</p> <ul style="list-style-type: none"> ▪ ADSL ▪ Amazon CloudWatch ▪ Buffalo TeraStation NAS ▪ Cisco ASA VPN

Setting	Description
	<ul style="list-style-type: none">▪ Cisco Device (Generic)▪ Dell EqualLogic▪ Dell MDi Disk▪ DNS Server▪ Environment Jakarta▪ Environment Poseidon▪ FTP Server▪ Generic Device (Ping Only)▪ Generic Device (SNMP Enabled)▪ Generic Device (SNMP Enabled, Detailed)▪ HTTP Web Server▪ Hyper-V Host Server▪ IPMI-enabled Device▪ Juniper NS Device▪ Linux/UNIX Device (SNMP or SSH Enabled)▪ Mail Server (Generic)▪ Mail Server (MS Exchange)▪ Microsoft SharePoint 2010▪ NAS LenovoEMC▪ NAS QNAP▪ NAS Synology▪ NetApp▪ NTP Server▪ Printer (HP)▪ Printer (Generic)▪ RDP Server▪ RMON-compatible Device▪ Server (Cisco UCS)▪ Server (Compaq/HP Agents)▪ Server (Dell)▪ Server (Fujitsu)▪ Server (IBM)

Setting	Description
	<ul style="list-style-type: none"> ▪ SonicWall ▪ SSL Security Check ▪ Switch (Cisco Catalyst) ▪ Switch (Cisco IOS Based) ▪ Switch (HP Procurve) ▪ UNIX/Linux Device ▪ UPS Health (APC) ▪ UPS Health (Generic) ▪ UPS Health (Liebert) ▪ VMware ESXi / vCenter Server ▪ Web Server ▪ Windows (Detailed via WMI) ▪ Windows (via Remote PowerShell) ▪ Windows (via WMI) ▪ Windows IIS (via SNMP) ▪ XenServer Hosts ▪ XenServer Virtual Machines <p>Once the auto-discovery is finished, PRTG creates a new ticket^[240] and lists the device templates that it used to create new sensors.</p>


Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Location

Click  to interrupt the [inheritance](#)^[142].

Setting	Description
Location (for Geo Maps)	<p>If you want to use Geo Maps⁴⁰²⁶, enter a location in the first line. Geographical maps then display objects like devices or groups with a status icon using a color code similar to the sensor status icons¹⁹⁷ (green–yellow–orange–red). You can enter a full postal address, city and country only, or latitude and longitude. It is possible to enter any text before, between, and after the coordinates, as PRTG automatically parses latitude and longitude, for example, enter 49.452778 11.077778, or enter 49.452778 any 11.077778 text.</p> <p>A minus sign (-) in the first line hides an object from a geographical map. In this case, you can enter location information in line two and following.</p> <p>You can define a specific label for each location. Enter a string denoting the label in the first line and provide the coordinates in the second line. This geographical marker then shows the object with the label in the geographical map.</p> <p> The preview map always has a road map layout regardless of the map layout you set in User Interface⁴¹⁷⁵.</p>

Credentials for Windows Systems

Click  to interrupt the [inheritance](#)¹⁴².


Setting	Description
Domain or Computer Name	<p>Enter the domain or computer name of the user account with which you want to access the Windows system. PRTG uses this account for Windows Management Instrumentation (WMI) sensors and other Windows sensors.</p> <p>If you want to use a Windows local user account on the target device, enter the computer name. If you want to use a Windows domain user account (recommended), enter the domain name. PRTG automatically adds a prefix to use the NT LAN Manager (NTLM) protocol if you do not explicitly define it. Do not leave this field empty.</p>
User Name	Enter the user name for access to the Windows system. Usually, you use credentials with administrator rights.
Password	Enter the password for access to the Windows system. Usually, you use credentials with administrator rights.

Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems

Click  to interrupt the [inheritance](#)¹⁴².


Setting	Description
User Name	Enter the user name for access to the Linux/Solaris/macOS system via Secure Shell (SSH) and Web-based Enterprise Management (WBEM). Usually, you use credentials with administrator rights.
Authentication Method	<p>Select the authentication method for login:</p> <ul style="list-style-type: none"> ▪ Password: Provide the password for the login. ▪ Private key: Provide an RSA private key for authentication. <p>i PRTG can only handle keys in the OpenSSH format that are not encrypted. You cannot use password-protected keys.</p> <p>i PRTG only supports RSA keys. It does not support DSA keys.</p> <p>■ For details, see section Monitoring via SSH⁴³⁰¹.</p>
Password	This setting is only visible if you select Password above. Enter a password for access to the Linux/Solaris/macOS system via SSH and WBEM. Usually, you use credentials with administrator rights.
Private Key	<p>This setting is only visible if you select Private key above. Paste the entire RSA private key, including the BEGIN and END lines. Make sure that a corresponding public key exists on the target device.</p> <p>i PRTG can only handle keys in the OpenSSH format that are not encrypted. You cannot use password-protected keys.</p> <p>i PRTG only supports RSA keys. It does not support DSA keys.</p> <p>■ For details, see section Monitoring via SSH⁴³⁰¹.</p> <p>i If you do not insert a private key for the first time but if you want to change the private key, you need to restart the PRTG core server service⁴²²⁵ for the private key change to take effect.</p>
WBEM Protocol	<p>Select the protocol that you want to use for the connection to the system via WBEM:</p> <ul style="list-style-type: none"> ▪ HTTP: Use an unsecure connection for WBEM. ▪ HTTPS (default): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection for WBEM. <p>i This setting is only relevant if you use WBEM sensors.</p>
WBEM Port	<p>Select if you want to use one of the default ports for the connection to the system via WBEM or if you want to set a custom port:</p> <ul style="list-style-type: none"> ▪ Default: Use one of the default ports. The default port for unsecure connections is 5988 and the default port for secure connections is 5989. ▪ Custom: Use a custom port. <p>i This setting is only relevant if you use WBEM sensors.</p>

Setting	Description
Custom WBEM Port	This setting is only visible if you select Custom above. Enter a custom WBEM port. Enter an integer value.
SSH Port	<p>Enter the port for SSH connections. Enter an integer value. The default port is 22.</p> <p>i By default, PRTG automatically uses this setting for all SSH sensors unless you define a different port number in the sensor settings.</p>
SSH Rights Elevation	<p>Select the rights that you want to use to run the command on the target system:</p> <ul style="list-style-type: none"> ▪ Run the command as the connecting user (default): Use the rights of the user who establishes the SSH connection. ▪ Run the command as a different user using 'sudo' (with password): Use the rights of a different user with a password required for sudo to run commands on the target system, for example, as a root user. ▪ Run the command as a different user using 'sudo' (without password): Use the rights of a different user without a password required for sudo to run commands on the target system, for example, as a root user. ▪ Run the command as a different user using 'su': Use the rights of a different user with su to run commands on the target system.
Target User Name	This setting is only visible if you select an option that includes sudo or su above. Enter a user name to run the specified command on the target system as a different user than the root user. If you leave this field empty, you run the command as a root user. Make sure that you set the Linux password even if you use a public key or a private key for authentication. This is not necessary if the user is allowed to run the command without a password.
Password	This setting is only visible if you select an option that includes sudo or su with password above. Enter the password to run the sudo command or the su command.
SSH Connection Mode	<p>Select the connection mode that you want to use to access data with SSH sensors.</p> <ul style="list-style-type: none"> ▪ Default (recommended): This is the default monitoring method for SSH sensors. It provides the best performance and security. ▪ Compatibility mode (deprecated): Use this mode only if the default mode does not work on the target system. The compatibility mode is the SSH engine that PRTG used in previous versions and it is deprecated. <p>i We strongly recommend that you use the default SSH connection mode.</p>

Setting	Description
	<p> You can also individually select the SSH connection mode for each SSH sensor in the sensor settings.</p>

Credentials for VMware/XenServer






Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
User Name	Enter the user name for access to VMware ESXi, vCenter Server, or Citrix XenServer. Usually, you use credentials with administrator rights.
Password	<p>Enter the password for access to VMware ESXi, vCenter Server, or Citrix XenServer. Usually, you use credentials with administrator rights.</p> <p> Single sign-on (SSO) passwords for vSphere do not support special characters. For details, see the VMware sensors sections.</p>
VMware Protocol	<p>Select the protocol for the connection to VMware ESXi, vCenter Server, or Citrix XenServer:</p> <ul style="list-style-type: none"> ▪ HTTPS (recommended): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. ▪ HTTP: Use an unsecure connection.
Session Handling	<p>Select if you want to reuse a session for VMware sensors:</p> <ul style="list-style-type: none"> ▪ Reuse a session for multiple scans (recommended): Select this option if you want a VMware sensor to reuse a single session for multiple sensor scans to query data. With this option, the sensor does not need to log in and out for each sensor scan. We recommend that you use this option because it reduces network load and log entries on the target device. This can increase performance. ▪ Create a new session for each scan: If you select this option, PRTG does not reuse a session and a VMware sensor has to log in and out for each sensor scan. This can decrease performance.

Credentials for SNMP Devices

Click  to interrupt the [inheritance](#)¹⁴².





Setting	Description
SNMP Version	<p>Select the Simple Network Management Protocol (SNMP) version for the connection to the target SNMP device:</p> <ul style="list-style-type: none"> ▪ SNMP v1: Use SNMP v1 for the connection. SNMP v1 only offers clear-text data transmission. <ul style="list-style-type: none"> ❗ SNMP v1 does not support 64-bit counters. This might result in invalid data when you monitor traffic via SNMP. ▪ SNMP v2c (recommended): Use SNMP v2c for the connection. SNMP v2c also only offers clear-text data transmission but it supports 64-bit counters. ▪ SNMP v3: Use SNMP v3 for the connection. SNMP v3 provides secure authentication and data encryption. <ul style="list-style-type: none"> ❗ SNMP v3 has performance limitations because of the use of encryption. The main limiting factor is CPU power. Also keep in mind that SNMP v3, unlike SNMP v1 and v2c, does not scale with more CPU power. Because of this limitation, PRTG can only handle a limited number of requests per second so that you can use only a limited number of sensors using SNMP v3. If you see an increase in Interval Delay or Open Requests with the Probe Health sensor²⁰⁸³, distribute the load over multiple probes⁴⁶⁰³. SNMP v1 and SNMP v2c do not have this limitation.
Community String	<p>This setting is only visible if you select SNMP v1 or SNMP v2c above. Enter the community string of your device. This is like a clear-text password for simple authentication.</p> <p>❗ We recommend that you use the default value.</p>
Authentication Method	<p>This setting is only visible if you select SNMP v3 above. Select the authentication method:</p> <ul style="list-style-type: none"> ▪ MD5: Use message-digest algorithm 5 (MD5) for authentication. ▪ SHA: Use Secure Hash Algorithm (SHA) for authentication. <p>❗ If you do not want to use authentication but you need SNMP v3, for example, because your device requires context, you can leave the Password field empty. In this case, PRTG uses SNMP_SEC_LEVEL_NOAUTH and it entirely deactivates authentication.</p> <p>❗ The authentication method you select must match the authentication method of your device.</p>
User Name	<p>This setting is only visible if you select SNMP v3 above. Enter the user name for access to the target SNMP device.</p> <p>❗ The user name that you enter must match the user name of your device.</p>
Password	<p>This setting is only visible if you select SNMP v3 above. Enter the password for access to the target SNMP device.</p>

Setting	Description
	<p> The password that you enter must match the password of your device.</p>
Encryption Type	<p>This setting is only visible if you select SNMP v3 above. Select an encryption type:</p> <ul style="list-style-type: none"> ▪ DES: Use Data Encryption Standard (DES) as the encryption algorithm. ▪ AES: Use Advanced Encryption Standard (AES) as the encryption algorithm. <p> Net-SNMP does not support AES-192 and AES-256. They do not have RFC specifications.</p> <p> The encryption type that you select must match the encryption type of your device.</p>
Encryption Key	<p>This setting is only visible if you select SNMP v3 above. Enter an encryption key. If you provide a key, PRTG encrypts SNMP data packets with the encryption algorithm that you selected above. Enter a string or leave the field empty.</p> <p> The encryption key that you enter must match the encryption key of your device. If the encryption keys do not match, you do not get an error message.</p>
Context Name	<p>This setting is only visible if you select SNMP v3 above. Enter a context name only if the configuration of the device requires it. Context is a collection of management information that is accessible by an SNMP device. Enter a string.</p>
SNMP Port	<p>Enter the port for the connection to the SNMP target device. Enter an integer value. The default port is 161.</p> <p> We recommend that you use the default value.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p>




Credentials for Database Management Systems

Click  to interrupt the [inheritance](#) .

The settings you define in this section apply to the following sensors:

- [ADO SQL v2 sensor](#) 
- [Microsoft SQL v2 sensor](#) 
- [MySQL v2 sensor](#) 
- [Oracle SQL v2 sensor](#) 

▪ [PostgreSQL sensor](#) 

Setting	Description
Port	<p>Select the port that PRTG uses for connections to the monitored databases:</p> <ul style="list-style-type: none"> ▪ Default (recommended): PRTG automatically determines the type of the database and uses the corresponding default port to connect. PRTG uses the following default ports: <ul style="list-style-type: none"> ▫ Microsoft SQL: 1433 ▫ MySQL: 3306 ▫ Oracle SQL: 1521 ▫ PostgreSQL: 5432 ▪ Custom port for all database sensors: Select this option if your database management systems do not use the default ports. Enter a custom port for database connections below. <p> PRTG uses this custom port for all database sensors and for connections to all your databases.</p>
Custom Port	<p>Enter a custom port for database connections. Enter an integer value.</p> <p> PRTG uses this custom port for all database sensors and for connections to all your databases.</p>
Authentication Method	<p>Select the authentication method for the connection to the Structured Query Language (SQL) database:</p> <ul style="list-style-type: none"> ▪ Windows authentication with impersonation: PRTG uses the Windows credentials that you define in settings that are higher in the object hierarchy ^[138], for example, in the settings of the parent device; for the database connection. <p> The user whose credentials PRTG uses needs to have permission to log in to the probe system with a database sensor. This is necessary for the impersonation.</p> <ul style="list-style-type: none"> ▪ SQL server authentication: Use explicit credentials for database connections. Enter a user name and password below.
User Name	<p>This setting is only visible if you select SQL server authentication above. Enter the user name for the database connection.</p>
Password	<p>This setting is only visible if you select SQL server authentication above. Enter the password for the database connection.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p>

Credentials for AWS

Click  to interrupt the [inheritance](#)¹⁴².

For more information about the permissions that are necessary to query the AWS API, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)

Setting	Description
Access Key	Enter the Amazon Web Services (AWS) access key.
Secret Key	Enter the AWS secret key.

Credentials for Dell EMC

Click  to interrupt the [inheritance](#)¹⁴².


Setting	Description
User	Enter the user name for access to the Dell EMC system.
Password	Enter the password for access to the Dell EMC system.
Port	Enter the port for the connection to the Dell EMC system. The default port for secure connections is 443 .

Credentials for Microsoft 365

Click  to interrupt the [inheritance](#)¹⁴².

 The [Microsoft 365 Service Status sensor](#)¹⁵⁴⁶ and the [Microsoft 365 Service Status Advanced sensor](#)¹⁵⁵⁷ use the following credentials to authenticate with Azure Active Directory (Azure AD).


For more information about the credentials and the permissions that are necessary to use the Microsoft 365 sensors, see the Knowledge Base: [How do I obtain credentials and set permissions for the Microsoft 365 sensors?](#)


Setting	Description
Tenant ID	Enter the Azure AD tenant ID.  A tenant ID must be a 32-digit sequence in hexadecimal notation.


Setting	Description
Client ID	Enter the Azure AD client ID.
Client Secret	Enter the Azure AD client secret.

Credentials for Microsoft Azure

Click  to interrupt the [inheritance](#) ¹⁴².

 The [Microsoft Azure Subscription Cost sensor](#) ¹⁵⁶⁸ and the [Microsoft Azure Virtual Machine sensor](#) ¹⁵⁸² use the following credentials to authenticate with Azure AD.




 For more information about the credentials and permissions that are necessary use the Microsoft Azure sensors, see the Knowledge Base: [How do I obtain credentials and create custom roles for the Microsoft Azure sensors?](#)

Setting	Description
Tenant ID	Enter the Azure AD tenant ID.  A tenant ID must be a 32-digit sequence in hexadecimal notation.
Client ID	Enter the Azure AD client ID.
Client Secret	Enter the Azure AD client secret.
Subscription ID	Enter the Azure AD subscription ID.

Credentials for MQTT



Click  to interrupt the [inheritance](#) ¹⁴².


Setting	Description
Authentication Method	Select if you want to connect without credentials or define credentials for access to the MQTT broker. <ul style="list-style-type: none"> None (default): Connect without credentials. User name and password: Define credentials for the connection.
User	This setting is only visible if you select User name and password above. Enter the user name for access to the Message Queue Telemetry Transport (MQTT) broker.

Setting	Description
Password	This setting is only visible if you select User name and password above. Enter the password for access to the MQTT broker.
Port	Enter the port for the connection to the MQTT broker. The default port for secure connections is 8883 and the default port for unsecure connections is 1883 .
Transport-Level Security	Select if you want to use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection: <ul style="list-style-type: none"> Do not use transport-level security: Establish the connection without connection security. Use transport-level security: Establish the connection with the strongest SSL/TLS method that the target device provides.
Server Authentication	This setting is only visible if you select Use transport-level-security above. Select if you want to use a certificate for server authentication. <ul style="list-style-type: none"> Disable (default): Do not use a certificate for server authentication. Enable: Use a certificate for server authentication.
CA Certificate	Paste the certificate authority (CA) certificate for the verification of the MQTT broker. <p> The certificate must be in Privacy-Enhanced Mail (PEM) format.</p>
Client Authentication	This setting is only visible if you select Use transport-level-security above. Select if you want to use a certificate for client authentication. <ul style="list-style-type: none"> Disable (default): Do not use a certificate for client authentication. Enable: Use a certificate for client authentication.
Client Certificate	Paste the certificate that you created for authenticating the sensor against the MQTT broker. <p> The certificate must be in PEM format.</p>
Client Key	Enter the client key for access to the MQTT broker. <p> The client key must be in PEM format and it must be encrypted using the Client Key Password.</p>
Client Key Password	Enter the password for the client key.

Credentials for OPC UA

Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
Port	Enter the port for the connection to the OPC Unified Architecture (OPC UA) server. The default port for secure connections is 4840 .
Server Path	Enter the path of the OPC UA server endpoint if you run more than one server under the same IP address or DNS name.
Security Mode	Select if you want to use encryption: <ul style="list-style-type: none"> ▪ None (default): Do not use encryption. ▪ Sign: Sign messages between the sensor and the OPC UA server. ▪ Sign & Encrypt: Sign and encrypt messages between the sensor and the OPC UA server.
Security Policy	This setting is only visible if you select Sign or Sign & Encrypt above. Select if you want to use a security policy and define which policy you want to use: <ul style="list-style-type: none"> ▪ None (default): Do not use a security policy. ▪ Basic256Sha256: Use the Basic256Sha256 security policy. ▪ Basic256: Use the Basic256 security policy.
Client Certificate	Paste the certificate that you created for authenticating the sensor against the OPC UA server. <p> The certificate must meet the following requirements:</p> <ul style="list-style-type: none"> ▪ The key size must be 2048-bit. ▪ The secure hash algorithm must be SHA256. ▪ DataEncipherment must be part of the KeyUsage certificate extension. ▪ A uniform resource indicator (URI) must be set in subjectAltName. ▪ The certificate must be in Privacy-Enhanced Mail (PEM) format.
Client Key	Enter the client key for access to the OPC UA server. <p> The client key must be in PEM format and it must be encrypted using the Client Key Password.</p>
Client Key Password	Enter the password for the client key.
Authentication Method	Select if you want to connect without credentials or define credentials for access to the OPC UA server: <ul style="list-style-type: none"> ▪ Anonymous (default): Connect without credentials. ▪ Username/Password: Define credentials for the connection.

Setting	Description
	<p> Most OPC UA servers do not support Username/Password authentication without a client certificate. To use Username/Password authentication, select Sign or Sign & Encrypt under Security Mode and Basic256Sha256 or Basic256 under Security Policy and enter the Client Certificate, Client Key, and Client Key Password that you want to use.</p>
User	This setting is only visible if you select Username/Password above. Enter the user name for access to the OPC UA server.
Password	This setting is only visible if you select Username/Password above. Enter the password for access to the OPC UA server.

Credentials for Soffico Orchestra

Click  to interrupt the [inheritance](#) ¹⁴².

Setting	Description
Authentication Method	<p>Select if you want to connect without credentials or define credentials for access to the Orchestra platform:</p> <ul style="list-style-type: none"> None (default): Connect without credentials. Username/Password: Define credentials for the connection.
User	This setting is only visible if you select Username/Password above. Enter the user name for access to the Orchestra platform.
Password	This setting is only visible if you select Username/Password above. Enter the password for access to the Orchestra platform.
Timeout (Sec.)	Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).
Port	Enter the port for the connection to the Orchestra platform. The default port for secure connections is 8443 and the default port for unsecure connections is 8019 .
Protocol	<p>Select the protocol that you want to use for the connection to the Orchestra platform:</p> <ul style="list-style-type: none"> HTTPS (default): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. HTTP: Use an unsecure connection.

Credentials for Veeam




Click  to interrupt the [inheritance](#)¹⁴².

Setting	Description
User	Enter the user name for access to the Veeam Backup Enterprise Manager.
Password	Enter the password for access to the Veeam Backup Enterprise Manager.
Port	Enter the port for the connection to the Veeam Backup Enterprise Manager. The default port for secure connections is 9398 .

Windows Compatibility Options

Click  to interrupt the [inheritance](#)¹⁴².

If you experience problems when you monitor via Windows sensors, use the following compatibility options for troubleshooting.




Setting	Description
Preferred Data Source	<p> This setting only applies to hybrid sensors that use both performance counters and Windows Management Instrumentation (WMI). The setting does not apply to other sensors.</p> <p>Define the method that Windows sensors use to query data:</p> <ul style="list-style-type: none"> ▪ Performance counters and WMI as fallback: Try to query data via performance counters. If this is not possible, establish a connection via WMI. ▪ Performance counters only: Query data via performance counters only. If this is not possible, the sensor returns no data. ▪ WMI only (recommended): Query data via WMI only. If this is not possible, the sensor returns no data. We recommend that you use this option.
Timeout Method	<p>Select the time that the sensor waits for the return of the WMI query before the sensor cancels the query and shows an error message:</p> <ul style="list-style-type: none"> ▪ Use 1.5x scanning interval (recommended): Multiply the scanning interval of the sensor by 1.5 and use the resulting value. ▪ Set manually: Manually enter a timeout value. <p> We recommend that you use the default value.</p> <p> If you experience ongoing timeout errors, try increasing the timeout value.</p>

Setting	Description
Timeout Value (Sec.)	This setting is only visible if you select Set manually above. Enter the time the sensor waits for the return of its WMI query before it cancels it and shows an error message. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).

SNMP Compatibility Options

Click  to interrupt the [inheritance](#) .

If you experience problems when you monitor via Simple Network Management Protocol (SNMP) sensors, use the following compatibility options for troubleshooting.

Setting	Description
SNMP Delay (ms)	<p>Enter the time in milliseconds (ms) that PRTG waits between two SNMP requests. This can increase device compatibility. Enter an integer value. You can define a delay between 0 and 100. PRTG does not support higher delays.</p> <p> We recommend that you use the default value.</p> <p> If you experience SNMP connection failures, try increasing the delay.</p>
Failed Requests	<p>Select if an SNMP sensor tries again after a request fails:</p> <ul style="list-style-type: none"> ▪ Retry (recommended): Try again if an SNMP request fails. This can prevent false error messages because of temporary timeout failures. ▪ Do not retry: Do not retry if an SNMP request fails. If you select this option, an SNMP sensor shows a Down status earlier.
Overflow Values	<p>Select how PRTG handles overflow values. Some devices do not correctly handle internal buffer overflows. This can cause false peaks.</p> <ul style="list-style-type: none"> ▪ Ignore overflow values: Ignore overflow values and do not include them in the monitoring data. We recommend that you use this option. ▪ Handle overflow values as valid results: Regard all overflow values as regular data and include them in the monitoring data. <p> If you experience problems because of strange peaks in your data graphs, change this option. Peaks might indicate that the monitored device resets counters without an overflow. PRTG interprets such behavior as overflow that results in data peaks. Select the option Ignore overflow values in this case. For more details, see the Knowledge Base: What is the Overflow Values setting in the SNMP Compatibility Options?</p>
Zero Values	<p>Select how PRTG handles zero values. Some devices send incorrect zero values. This can cause false peaks.</p>

Setting	Description
32-bit/64-bit Counters	<ul style="list-style-type: none"> ▪ Ignore zero values for delta sensors (recommended): Ignore zero values and do not include them in the monitoring data. We recommend that you use this option. <ul style="list-style-type: none"> ⓘ If you experience problems, try changing this option. ▪ Handle zero values as valid results for delta sensors: Regard all zero values as regular data and include them in the monitoring data. <p>Select the type of traffic counters that PRTG searches for on a device:</p> <ul style="list-style-type: none"> ▪ Use 64-bit counters if available (recommended): The interface scan uses 64-bit traffic counters, if available. This can avoid buffer overflows in the devices <ul style="list-style-type: none"> ⓘ We recommend that you use the default value. ⓘ If you experience problems, try changing this option. ▪ Use 32-bit counters only: The interface scan always uses 32-bit traffic counters, even if 64-bit counters are available. This can make monitoring more reliable for some devices.
Request Mode	<p>Select the request method that PRTG uses for SNMP sensors:</p> <ul style="list-style-type: none"> ▪ Use multi get (recommended): Bundle multiple SNMP requests into one request. We recommend that you use this option. <ul style="list-style-type: none"> ⓘ If you experience problems, try changing this option. ▪ Use single get: Use one request for each SNMP value. This can increase compatibility with older devices. <p>ⓘ PRTG uses paging for SNMP requests. This means that if a sensor has to query more than 20 object identifiers (OID), it automatically polls the OIDs in packages of 20 OIDs each.</p>
Walk Mode	<p>Select the kind of SNMP walk that PRTG uses for SNMP sensors:</p> <ul style="list-style-type: none"> ▪ Use GETBULK requests (recommended): Request the next <i>x</i> OIDs in one SNMP request. The default value is 10. It is dynamic based on the response size. <ul style="list-style-type: none"> ⓘ This option only works with devices that support SNMP version v2c or higher. Make sure that you set the correct SNMP Version in the Credentials for SNMP Devices settings of the parent device or inherit it from objects that are higher in the object hierarchy^[138]. ▪ Use GETNEXT requests: Request one OID at a time. This can increase compatibility with older devices or with devices that have insufficient SNMP BULKWALK support.

Setting	Description
Port Name Template	<p>Select how PRTG displays the name of SNMP sensors. Enter a template that uses several variables. When you add new sensors, PRTG scans the interface for available counters at certain OIDs. At each OID, several fields with interface descriptions are usually available. They are different for every device and OID. PRTG uses the information in these fields to name the sensors. If a field is empty or if it is not available, PRTG adds an empty string to the name. By default, the port name template is ([port]) [ifalias] [ifsensor], which creates a name like (001) Ethernet1 Traffic. You can use and combine any field names that are available at an OID of your device, for example:</p> <ul style="list-style-type: none"> ▪ [port]: The port number of the monitored interface. ▪ [ifalias]: The 'alias' name for the monitored interface as specified by a network manager, providing a non-volatile handling. ▪ [ifname]: The textual name of the monitored interface as assigned by the local device. ▪ [ifdescr]: A textual string containing information about the monitored device or interface, for example, manufacturer, product name, or version. ▪ [ifspeed]: An estimate of the monitored interface's current bandwidth (Kbit/s). ▪ [ifsensor]: The type of the sensor, this is Traffic or RMON. This helps to differentiate between SNMP Traffic^[3094] and SNMP RMON^[3021] sensors. <p>■ For more information about SNMP sensor names, see the Knowledge Base: How can I change the defaults for names automatically generated for new SNMP sensors?</p>
Port Name Update	<p>Select how PRTG reacts if you change the names of ports in your physical device (for example, a switch or router):</p> <ul style="list-style-type: none"> ▪ Keep port names (use this if you edit the names in PRTG): Do not automatically adjust sensor names. This is the best option if you want to manually change names in PRTG. ▪ Automatically update sensor names if port names change in the device: If PRTG detects port name changes in your physical device, it tries to automatically adjust the sensor names accordingly. <p>■ For more information about automatic name updates, see the Knowledge Base: Automatically update port name and number for SNMP Traffic sensors when the device changes them</p>
Port Identification	<p>Select the field that PRTG uses for SNMP interface identification:</p> <ul style="list-style-type: none"> ▪ Automatic identification (recommended): Try the ifAlias field first to identify an SNMP interface and then try ifDescr. <ul style="list-style-type: none"> ⓘ PRTG does not automatically try ifName. ▪ Use ifAlias: For most devices, ifAlias is the best field to use for unique interface names.

Setting	Description
	<ul style="list-style-type: none"> ▪ Use ifDescr: Use this option if the port order of your device changes after a restart, and if no ifAlias field is available. For example, this is the best option for Cisco ASA devices. <ul style="list-style-type: none"> ⓘ If you use this option, it is important that your device returns unique interface names in the ifDescr field. ▪ Use ifName: You can also use this option if no unique ifAlias is available. <ul style="list-style-type: none"> ⓘ If you use this option, it is important that your device returns unique interface names in the ifName field. ▪ Do not update ports: Use this option to disable the automatic port identification.
Start Interface Index	<ul style="list-style-type: none"> ⓘ This setting only applies to SNMP Traffic sensors^[3094] and to Cisco IP SLA sensors^[658]. <p>Enter the index at which PRTG starts to query the interface range during sensor creation. Enter 0 for the automatic mode.</p> <ul style="list-style-type: none"> ⓘ We recommend that you use the default value.
End Interface Index	<ul style="list-style-type: none"> ⓘ This setting only applies to SNMP Traffic sensors^[3094] and to Cisco IP SLA sensors^[658]. <p>Enter the index at which PRTG stops querying the interface range during sensor creation. Enter 0 for the automatic mode.</p> <ul style="list-style-type: none"> ⓘ We recommend that you use the default value.



Proxy Settings for HTTP Sensors

Click  to interrupt the [inheritance](#)^[142].

The proxy settings determine how a sensor connects to a URL. You can enter data for an HTTP proxy server that sensors use when they connect via HTTP or HTTPS.


- ⓘ This setting only applies to HTTP sensors and how they monitor. To change the proxy settings for the PRTG core server, see section [Core & Probes](#)^[4203].
- ⓘ The [SSL Certificate sensor](#)^[3302] and the [SSL Security Check sensor](#)^[3315] do not support HTTP proxies but you can configure connections via SOCKS proxies in the sensors' settings.

Setting	Description
IP Address/DNS Name	Enter the IP address or Domain Name System (DNS) name of the proxy server. If you leave this field empty, HTTP sensors do not use a proxy.

Setting	Description
Port	Enter the port number of the proxy. The default is 8080. Enter an integer value.
User	<p>If the proxy requires authentication, enter the user name for the proxy login.</p> <p> Only basic authentication is available. Enter a string or leave the field empty.</p>
Password	<p>If the proxy requires authentication, enter the password for the proxy login.</p> <p> Only basic authentication is available. Enter a string or leave the field empty.</p>

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>





Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Setting	Description
Schedule	Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:

Setting	Description
	<ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To cancel an active maintenance window before the defined end date, change the time entry under Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. <p>i You do not trigger a status change by dependency if you manually pause a master object or if you pause it by schedule.</p>

Setting	Description
	<p> To test your dependencies , select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector  to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p>

Access Rights

Click  to interrupt the [inheritance](#) .

Setting	Description
User Group Access	<p>Select the user groups ⁴²¹⁹ that have access to the object. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the object. The object neither shows up in lists nor in the device tree. <ul style="list-style-type: none"> ⓘ There is one exception: If a user in this user group has access to a child object, the parent object is visible in the device tree but users in this user group cannot access it. ▪ Read access: Users in this group can see the object and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the object, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the object, view its monitoring results, edit its settings, and edit its access rights settings. <p>To automatically set all child objects to inherit this object's access rights, enable the Revert children's access rights to inherited option.</p> <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>





Channel Unit Configuration


Click  to interrupt the [inheritance](#) ¹⁴².

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Advanced Network Analysis

Click  to interrupt the [inheritance](#)^[142].

Setting	Description
Unusual Detection	<p>Select if you want to use the unusual detection^[4188] for sensors:</p> <ul style="list-style-type: none"> ▪ Enabled: Activate the unusual detection for this object and, by default, for all objects underneath in the object hierarchy^[138]. Sensors that are affected by this setting show the Unusual status if PRTG detects unusual activity. ▪ Disabled: Do not activate the unusual detection. PRTG ignores unusual values for sensors that are affected by this setting. These sensors do not show the Unusual status. <p> You can configure the behavior of the unusual detection or completely disable it in the system settings^[4188].</p>
Similar Sensors Detection	<p>Select if you want to activate the similar sensors^[215] analysis:</p> <ul style="list-style-type: none"> ▪ Enabled: Activate the similar sensors detection for this object and, by default, for all objects underneath in the object hierarchy. PRTG considers all sensors that are affected by this setting during the similarity analysis. ▪ Disabled: Do not the activate the similar sensors detection. PRTG does not consider sensors that are affected by this setting during the similarity analysis. <p> You can configure the depth of the analysis of the similar sensors detection or completely disable it in the system settings^[4190].</p>
System Information	<p>Select if you want to retrieve and show system information^[231] for your devices:</p> <ul style="list-style-type: none"> ▪ Enabled: Activate the system information feature for this object and, by default, for all objects underneath in the hierarchy. ▪ Disabled: Do not activate the system information feature. <p> The System Information feature is enabled by default. To retrieve the data, PRTG automatically uses the credentials for Windows systems^[452] and the credentials for SNMP devices^[455] that you entered in the device settings or that the device inherits^[138] from a parent object like the root group. Consider this when you monitor devices that are outside of your local network, especially when you use SNMP v1 or SNMP v2c, which do not provide encryption.</p> <p> This setting is not available on the hosted probe of a PRTG Hosted Monitor instance.</p>

-  Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>

How do I obtain credentials and set permissions for the Microsoft 365 sensors?

- <https://kb.paessler.com/en/topic/88462>

How do I obtain credentials and create custom roles for the Microsoft Azure sensors?

- <https://kb.paessler.com/en/topic/88625>

What is the Overflow Values setting in the SNMP Compatibility Options?

- <https://kb.paessler.com/en/topic/43503>












How can I change the defaults for names automatically generated for new SNMP sensors?

- <https://kb.paessler.com/en/topic/7363>

Automatically update port name and number for SNMP Traffic sensors when the device changes them

- <https://kb.paessler.com/en/topic/25893>

Device and Sensor Setup

- [Auto-Discovery](#)  296
- [Create Objects Manually](#)  299
- [Manage Device Tree](#)  364
- [Root Group Settings](#)  366
- [Probe Settings](#)  385
- [Group Settings](#)  413
- [Device Settings](#)  446
- [Sensor Settings](#)  476
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8 Sensor Settings

There is a dedicated section for every sensor with details about the available settings.

■ For more information, see section [List of Available Sensor Types](#) ⁴⁵⁸¹.

■ For sensor settings, multi-edit is also available. This enables you to change properties of many sensors at the same time. For more information, see section [Multi-Edit](#) ⁴⁰¹⁴.

To detect unexpected correlations between your network components, PRTG provides a [similar sensors](#) ²¹⁵¹ analysis.

Lists of Sensors for Different Topics

There are different overview lists of sensors:

- [List of Sensors by Performance Impact](#) ⁴⁶⁷²
- [List of New Sensors](#) ⁴⁶³⁸
- [List of Sensors with IPv6 Support](#)

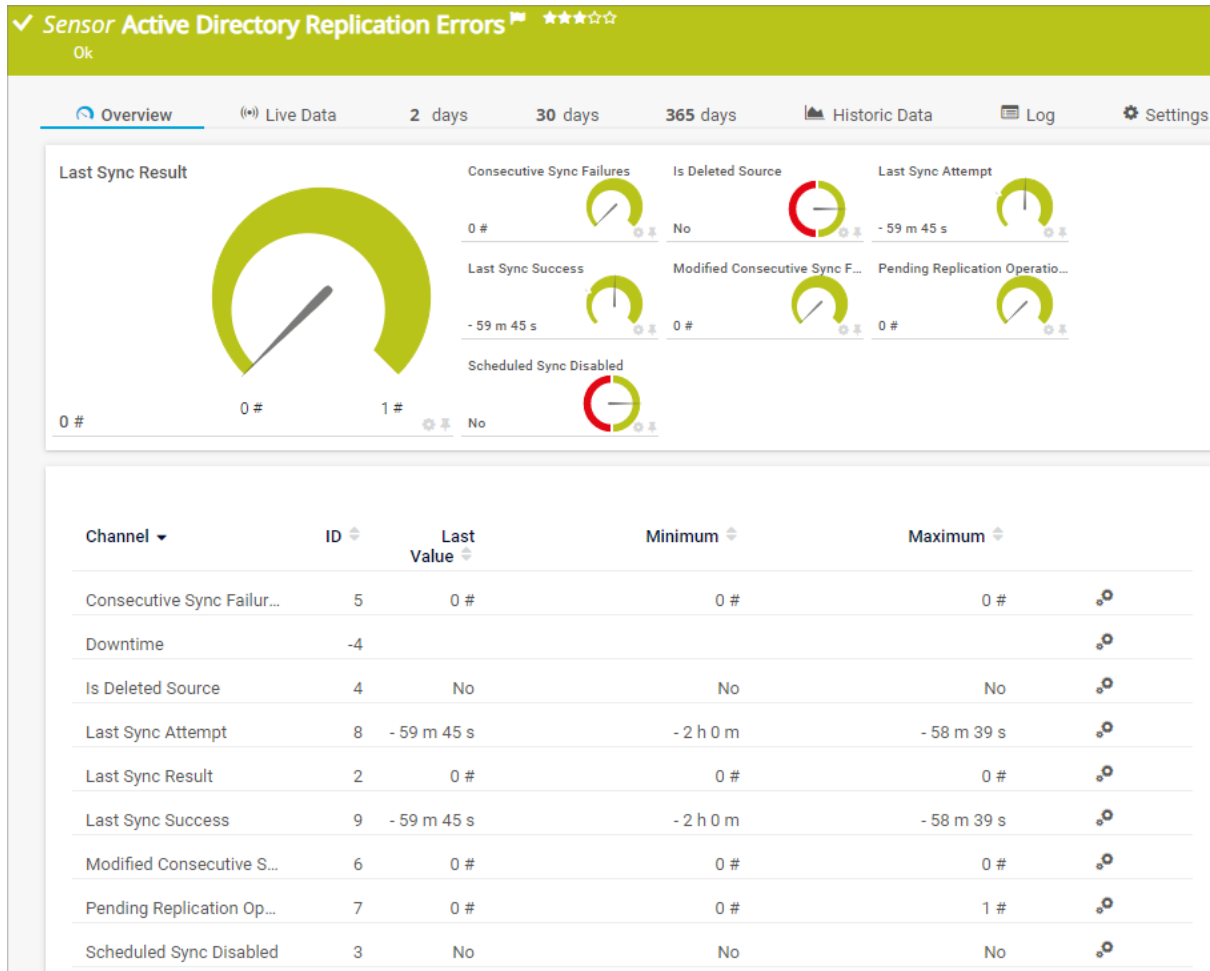
Device and Sensor Setup

- [Auto-Discovery](#) ²⁹⁶¹
- [Create Objects Manually](#) ²⁹⁹¹
- [Manage Device Tree](#) ³⁶⁴¹
- [Root Group Settings](#) ³⁶⁶¹
- [Probe Settings](#) ³⁸⁵¹
- [Group Settings](#) ⁴¹³¹
- [Device Settings](#) ⁴⁴⁶¹
- [Sensor Settings](#) ⁴⁷⁶¹
- [Additional Sensor Types \(Custom Sensors\)](#) ³⁹⁷²
- [Channel Settings](#) ³⁹⁷⁷
- [Notification Triggers Settings](#) ³⁹⁸⁷

7.8.1 Active Directory Replication Errors Sensor

The Active Directory Replication Errors sensor checks a Windows domain controller (DC) for replication errors.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Active Directory Replication Errors




Sensor in Other Languages

- Dutch: Active Directory Replicatie Fouten
- French: Erreurs de réplication Active Directory
- German: Active Directory Replikationsfehler
- Japanese: AD レプリケーションエラー監視
- Portuguese: Erros de replicação do Active Directory
- Russian: Active Directory
- Simplified Chinese: 活动目录复制错误
- Spanish: Errores de replicación de Active Directory

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
 - The parent device must be a DC.
 - This sensor [requires](#)⁴⁷⁸ the probe system to be part of the domain whose Active Directory you want to monitor.
 - This sensor requires .NET 4.7.2 or later on the probe system. If the sensor shows the error PE087, you must additionally install .NET 3.5 on the probe system.
 - This sensor requires credentials for Windows systems in the settings of the parent device.
 - We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
 - This sensor supports the IPv6 protocol.
 - This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)⁴⁴⁸⁵.
- ☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Member of Windows domain	<p>This sensor only works if the probe system is part of the domain whose Active Directory you want to monitor. You must add the sensor to a device that represents the DC.</p>
Windows credentials	<p>This sensor requires credentials for Windows systems⁴⁵² in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p> If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, the sensor cannot correctly connect.</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Setting	Description
Replication Neighbor	<p>Select the replication neighbor whose replication connection you want to monitor.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>
Naming Context	<p>Select the Active Directory naming context that you want to monitor:</p> <ul style="list-style-type: none"> ▪ Configuration (default): Includes information about partitions, sites, services, or the Active Directory schema. ▪ Schema: Includes the information by which objects, classes, and attributes that are used in the Active Directory are defined. ▪ DomainDnsZones: Includes information about the domain controllers that are in the domain. ▪ Domain: Includes domain information that is replicated to this domain's domain controllers, for example information about computers or users. <p>i The probe system must be part of the domain whose naming context you want to monitor.</p> ▪ ForestDnsZones: Includes information about domain controllers in the forest.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ X +

Priority ⓘ ★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ptfsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings

Replication Neighbor **i**

Naming Context **i** *Configuration (default)*

Sensor Settings

Setting	Description
Replication Neighbor	Shows the replication neighbor whose replication connection this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Naming Context	Shows the Active Directory naming context that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Debug Options

Debug Options

Result Handling ⓘ Discard result
 Store result

Debug Options

Setting	Description
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.




Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

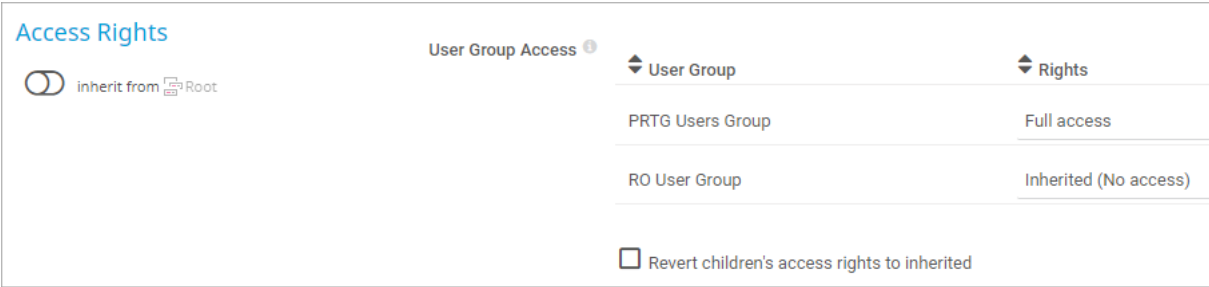
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights



Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Consecutive Sync Failures	The number of consecutive synchronization failures
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Is Deleted Source	If the source is deleted <ul style="list-style-type: none"> Up status¹⁹⁷: No Down status: Yes
Last Sync Attempt	The time of the last synchronization attempt
Last Sync Result	The result of the last synchronization i This channel is the primary channel by default.
Last Sync Success	The time of the last synchronization success
Modified Consecutive Sync Failures	The number of modified, consecutive synchronization failures
Pending Replication Operations	The number of pending replication operations
Scheduled Sync Disabled	If the scheduled synchronization is disabled <ul style="list-style-type: none"> Up status: No Down status: Yes

More

■ KNOWLEDGE BASE

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>




What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)⁴⁸⁸

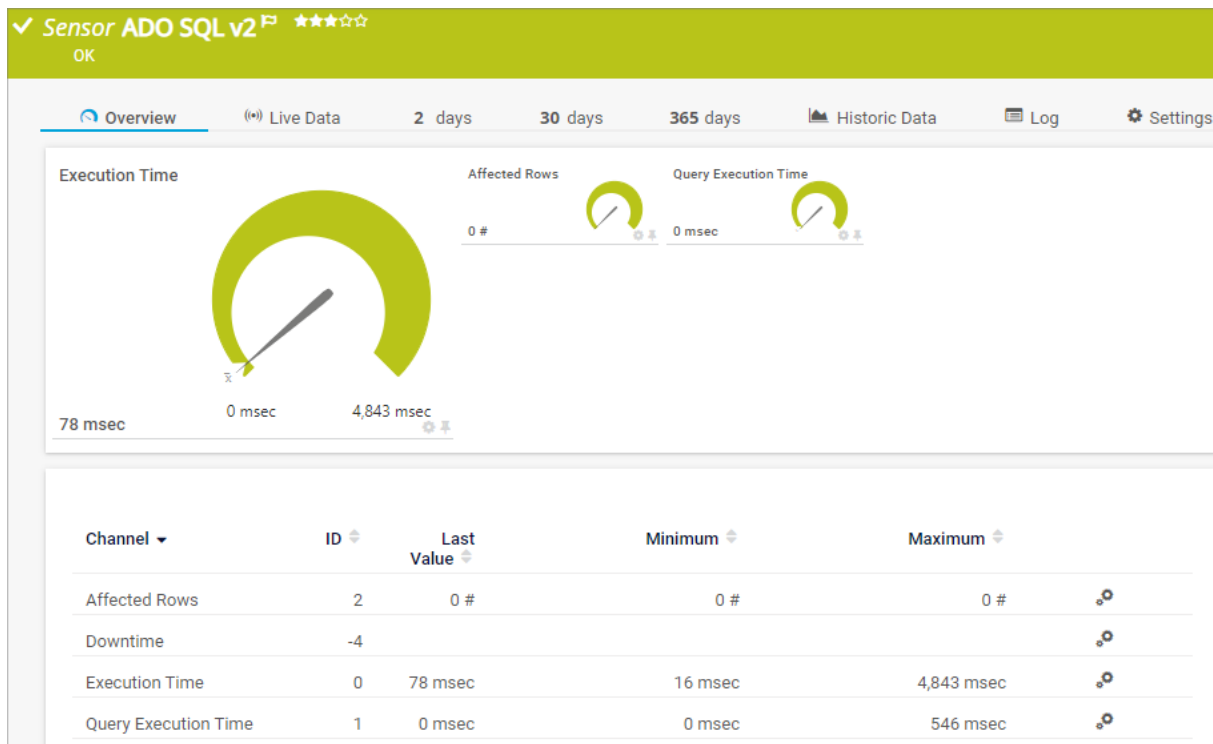
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.2 ADO SQL v2 Sensor

The ADO SQL v2 sensor monitors a database via an ActiveX Data Objects (ADO) connection and it executes a Structured Query Language (SQL) query.

i The sensor can monitor any data source that is available via Object Linking and Embedding, Database (OLE DB) or Open Database Connectivity (ODBC).

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



ADO SQL v2 Sensor

Sensor in Other Languages

- Dutch: ADO SQL v2
- French: ADO SQL v2
- German: ADO SQL v2
- Japanese: ADO SQL v2
- Portuguese: ADO SQL v2
- Russian: ADO SQL v2
- Simplified Chinese: ADO SQL v2
- Spanish: ADO SQL v2



Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.

- This sensor requires .NET 4.7.2 or later on the probe system.
- You must store your Structured Query Language (SQL) query in a file on the probe system. In a cluster, copy the file to every cluster node.
- Define credentials, custom port (if required), and timeout in the [credentials for database management systems](#) settings of the parent device, or in the settings of a group or probe above.
- This sensor supports the IPv6 protocol.
- If you use an ODBC connection, you must define the ODBC connection in the Windows ODBC Connection Manager first. If it is a 64-bit Windows, you must define the ODBC connection as an ODBC 32-bit connection.
- See section [Monitoring Databases](#) for an [example](#) for channel value selection.
- See the Knowledge Base: [How to set up the SQL v2 sensors in PRTG? Is there a guide?](#)
- See the Knowledge Base: [How can I monitor strings from an SQL database and show a sensor status depending on it?](#)
- See the Knowledge Base: [How can I monitor error tables in SQL databases?](#)
- See the Knowledge Base: [Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Database Specific

Setting	Description
Connection String	Enter the connection string that the sensor uses to connect to the database. A connection string can look like this, for example:

Setting	Description
	<p><code>Provider=SQLOLEDB.1;Data Source=10.0.0.200\SQLEXPRESS;User ID=user;Password=userpass;Initial Catalog=Northwind</code></p> <ul style="list-style-type: none"> ❗ For ODBC connections, you must enter <code>MSDASQL</code> as provider, for example <code>Provider=MSDASQL;DSN=_my_odbc_sqlserver</code>. ❗ You can use the placeholders <code>%dbloginuser</code> and <code>%dbloginpassword</code>. PRTG replaces them with the credentials for database management systems of the parent device.

Data

Setting	Description
SQL Query File	<p>Select the SQL query file that includes a valid SQL statement that the sensor executes on the server with every scanning interval. The list contains SQL scripts from the <code>\Custom Sensors\sql</code> subfolder of the PRTG program directory on the probe system. Store your script there. If you use the script on a cluster probe, you must store the script on all cluster nodes.</p> <p>A correct expression in the file could be: <code>SELECT AVG(UnitPrice) FROM Products</code>. If you want to use transactions, separate the individual steps with semicolons <code>;</code>.</p> <ul style="list-style-type: none"> ❗ Note that with each request, PRTG transfers the full result set, so use filters and limits in your query. ❗ The demo script <code>Demo Serveruptime.sql</code> is available by default. You can use the it to monitor the uptime of the target server. ■ See also the Knowledge Base: Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?
Data Processing	<p>Define whether the sensor processes data from the database:</p> <ul style="list-style-type: none"> ▪ Only execute query: Only show information about the number of affected rows and the execution time of the query. Affected rows are rows that were changed by the query (for example, created, deleted, or edited). ▪ Count table rows: Execute a <code>SELECT</code> statement and monitor how many rows of the data table this statement returns. ▪ Process data table: Read and analyze the data table. If you select this option, the sensor counts rows with <code>SELECT</code> statements as well.

Setting	Description
Channel #2 – #10	<p>This setting is only visible if you select Process data table above. You can define up to 10 additional channels for the data processing of this sensor. You have to define at least one data channel if you process the data table, so you automatically see all available settings for Channel #1. Specify how to handle all other possible channels:</p> <ul style="list-style-type: none"> ▪ Disable: Do not create this channel. ▪ Enable: Create this channel. <p>i It is not possible to enable or disable channels after sensor creation.</p>
Channel #x Name	<p>This setting is only visible if you select Process data table above. Enter a unique name for the channel. Enter a string. PRTG dynamically generates channels with this name as the identifier.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Channel #x Mode	<p>This setting is only visible if you select Process data table above. Define how to display the determined value in the channel:</p> <ul style="list-style-type: none"> ▪ Absolute (recommended): Show the value as the sensor retrieves it from the data table. ▪ Difference: The sensor calculates and shows the difference between the last and the current value returned from the data table. <ul style="list-style-type: none"> i This mode is not compatible with the unit Lookup. i This mode only works if the difference between the last and the current value is positive and increases with each scanning interval. This mode does not support negative and decreasing values.
Channel #x Unit	<p>This setting is only visible if you select Process data table above. Define the unit of the channel value:</p> <ul style="list-style-type: none"> ▪ BytesBandwidth ▪ BytesMemory ▪ BytesDisk ▪ Temperature ▪ Percent ▪ TimeResponse ▪ TimeSeconds ▪ TimeHours ▪ Count ▪ CPU

Setting	Description
	<ul style="list-style-type: none"> ▪ BytesFile ▪ SpeedDisk ▪ SpeedNet ▪ Custom ▪ Lookup <p>■ For more information about the available units, see section Custom Sensors.</p> <p>ⓘ To use lookups with this channel, select Lookup and define the lookup file in Channel #x Lookup. Do not use Custom if you use lookups with this sensor.</p> <p>ⓘ It is not possible to use the unit Lookup in combination with the Difference mode. You are not able to create the sensor in this case.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag X +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sqlsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Database Specific

Database Specific	<p>Connection String ⓘ Provider=SQLOLEDB.1;Data Source=10.0.0.200\SQLEXPRESS;User ID=user;Password=userpass;Initial Catalog=Northwind</p>
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Database Specific

Setting	Description
Connection String	Shows the string that the sensor uses to connect to the database. You can change the string if necessary.

Data

Data

SQL Query File ⓘ *Demo Serveruptime.sql*

Input Parameter Handling ⓘ Do not use input parameter (default)
 Use input parameter

Transaction Handling ⓘ Do not use transaction (default)
 Use transaction and always roll back
 Use transaction and commit on success


Data Processing ⓘ *Only execute query*

Result Handling ⓘ Discard result
 Store result

Data

Setting	Description
SQL Query File	Shows the SQL script file that the sensor executes on the server. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Input Parameter Handling	Define if you want to pass a parameter to the SQL query file: <ul style="list-style-type: none"> ▪ Do not use input parameter (default): Execute the SQL query file without using variables. ▪ Use input parameter: Execute an SQL query file that contains a variable. Provide the parameter that you want to use in the query below.
Input Parameter	This setting is only visible if you select Input Parameter Handling above. Enter the parameter that you want to pass to the SQL query file. This parameter replaces the variables @prtg, :prtg, or ? in the SQL query, considering the general rules for SQL variables. You can also use PRTG placeholders for custom sensors (command-line parameters) as input parameters, for example, %sensorid or %deviceid. For details, see section Custom Sensors [444]. ⓘ Provide strings as they are and do not surround them with quotation marks. PRTG automatically and correctly inserts string parameters into the query.
Transaction Handling	Define if you want to use transactions and if they affect the database content: <ul style="list-style-type: none"> ▪ Do not use transaction (default): Do not execute transactions.

Setting	Description
Data Processing	<ul style="list-style-type: none"> ▪ Use transaction and always roll back: The query does not change data in the database. In the SQL query file, separate the single steps of the transaction with semicolons. ▪ Use transaction and commit on success: The query changes data in the database. The changes only apply if all execution steps succeed without any errors. In the SQL query file, separate the single steps of the transaction with semicolons. <p>Shows how the sensor processes data from the database.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Handle DBNull in Channel Values as	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define the sensor behavior if the query returns DBNull:</p> <ul style="list-style-type: none"> ▪ Error: Show a Down status if the query returns DBNull. ▪ Number 0: Recognize the result DBNull as a valid value and interpret it as the number 0.
Select Channel Value by	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define how to select the desired cell in the database table:</p> <ul style="list-style-type: none"> ▪ Column number: Determine the channel value by using the value in row 0 of the column whose number you specify in Channel #x Column Number. ▪ Column name: Determine the channel value by using the value in row 0 of the column whose name you specify in Channel #x Column Name. ▪ Row number: Determine the channel value by using the value in column 0 of the row whose number you specify in Channel #x Row Number. ▪ Key value pair: Determine the channel value by searching in column 0 for the key you specify in Channel #x Key and by returning the value in column 1 of the same row where the key value was found. <p>i Defining how the desired cell in the database table is selected is necessary to configure the cells that are used in the channels.</p> <p>i The option you select here also defines the method of how to optionally determine a value for the sensor message. For details, see setting Use Data Table Value in Sensor Message.</p> <p>■ For an example for channel value selection, see section Monitoring Databases ⁴³²⁵.</p>
Channel #x	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. The setting shows if the channel is disabled.</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ Temperature ▪ Percent ▪ TimeResponse ▪ TimeSeconds ▪ TimeHours ▪ Count ▪ CPU ▪ BytesFile ▪ SpeedDisk ▪ SpeedNet ▪ Custom ▪ Lookup
Channel #x Custom Unit	This setting is only visible if you select the channel unit Custom above. Define a unit for the channel value. Enter a string.
Channel #x Lookup	This setting is only visible if you select the channel unit Lookup above. Select a lookup file that you want to use with this channel.
Use Data Table Value in Sensor Message	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define if the sensor message shows a value from the data table:</p> <ul style="list-style-type: none"> ▪ Disable: Do not use a custom sensor message. ▪ Enable: Define a custom sensor message with a defined value of the data table. Define the value selection below. <p>The method of how to determine a value for the sensor message is defined in the setting Select Channel Value by above.</p>
Sensor Message Column Number	This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Column number for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the number of a column. The sensor message shows the value in row 0 of this column. Enter an integer value.
Sensor Message Column Name	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Column name for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the name of a column. The sensor message shows the value in row 0 of this column. Enter a string.</p> <p> Columns start with index 0.</p>

Setting	Description
Sensor Message Row Number	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Row number for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the name of a column. The sensor message shows the value in row 0 of this column. Enter the number of a row. The sensor message shows the value in column 0 of this row. Enter an integer value.</p> <p>i Rows start with index 0.</p>
Sensor Message Key	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Key value pair for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter a key to search for in column 0 of the data table. The sensor message shows the value in column 1 of the row where the key was found. Enter a string.</p>
Sensor Message	<p>This setting is only visible if you enable Use Data Table Value in Sensor Message. Define the sensor message. Enter a string. Use the placeholder {0} at the position where you want to display the value.</p> <p>Example: The message is {0}</p> <p>i The number sign (#) is not supported in sensor messages. If a message contains a number sign, the message is clipped at this point.</p>
If Sensor Message Changes	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation.</p> <p>Define what the sensor does when the sensor message changes:</p> <ul style="list-style-type: none"> Ignore changes (default): Take no action on change. Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁶, you can use this mechanism to trigger a notification³³⁶⁷ whenever the sensor value changes.
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>



Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

<p>Scanning Interval</p> <p> inherit from  Root</p>	<p>Scanning Interval ⓘ 60 seconds</p> <hr/> <p>If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)</p>
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Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Affected Rows	The number of rows that were addressed by the query (including SELECT statements if you process data tables)
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Execution Time	<p>The execution time of the entire request (including connection buildup, query execution, transaction handling, disconnection) in milliseconds (msec)</p> <p>i This channel is the primary channel by default.</p>
Query Execution Time	The execution time of the specified query in msec

SQL Variables

You can use the following variables in the SQL query file to be replaced by an input parameter. This is useful if you have various SQL sensors with queries that differ in only one parameter.

- Microsoft SQL, MySQL, PostgreSQL: **@prtg**
- Oracle SQL: **:prtg**
- ADO SQL: **?** (question mark)

i @prtg, :prtg, and ? are common SQL query parameters and they are used in a parameterized SQL query. This means that the query and the parameter are forwarded without any changes to the database. This leads to some restrictions on the database side. For example, you cannot use variables as placeholders for table names or as lists in IN operators.

Examples for variables usage:

```
SELECT * FROM Table WHERE name = @prtg  
SELECT @prtg FROM Table
```

More

■ KNOWLEDGE BASE

How to set up the SQL v2 sensors in PRTG? Is there a guide?

- <https://kb.paessler.com/en/topic/70618>

How can I monitor strings from an SQL database and show a sensor status depending on it?

- <https://kb.paessler.com/en/topic/63259>

How can I monitor error tables in SQL databases?

- <https://kb.paessler.com/en/topic/70774>

Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?

- <https://kb.paessler.com/en/topic/75372>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

How do I monitor the size of a Microsoft SQL Server database?

- <https://kb.paessler.com/en/topic/18183>

Sensor Settings Overview

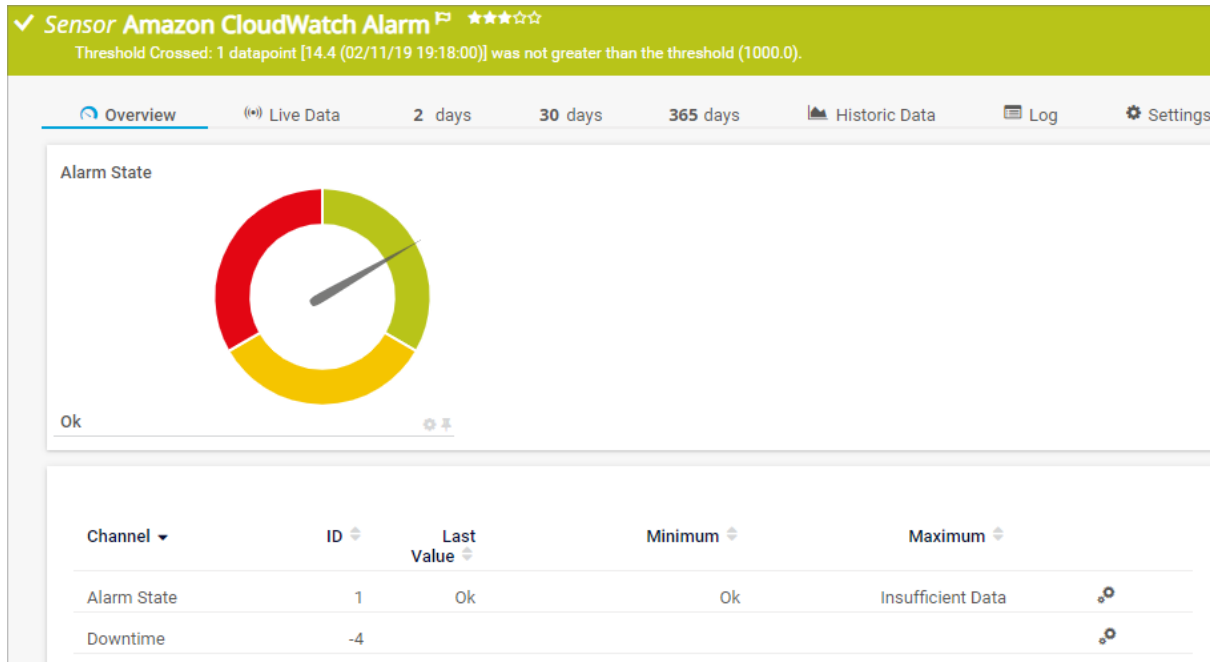
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.3 Amazon CloudWatch Alarm Sensor

The Amazon CloudWatch Alarm sensor monitors the status of an Amazon CloudWatch alarm. It reads the data via the Amazon Web Services (AWS) CloudWatch application programming interface (API).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Amazon CloudWatch Alarm Sensor

Sensor in Other Languages

- Dutch: Amazon CloudWatch Alarm
- French: Alarme Amazon CloudWatch
- German: Amazon CloudWatch Alarm
- Japanese: Amazon CloudWatch アラーム
- Portuguese: Amazon CloudWatch Alarmes
- Russian: Amazon CloudWatch
- Simplified Chinese: Amazon CloudWatch 报警
- Spanish: Alarma Amazon CloudWatch

Remarks

- This sensor requires access rights for CloudWatch queries. For details, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)
- This sensor requires .NET 4.7.2 or later on the probe system.
- Define [credentials for AWS](#) in settings that are higher in the [object hierarchy](#), for example, in the settings of the parent device.
- This sensor supports the IPv6 protocol.

- This sensor has a medium performance impact.
- The names of configured alarms that you want to monitor must not contain double spaces.
- The data you see in the sensor message is not necessarily the most recent data. It merely shows the reason for the current [status](#)^[197] and why the sensor changed to it. This means for the Up status, for example, that this data is as old as the amount of time that has passed since the last alarm disappeared.
- Amazon charges you for each AWS API request that the sensor sends to the Amazon servers. For details, see the Knowledge Base: [How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?](#)
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)^[448].

Detailed Requirements

Requirement	Description
Permissions for the AWS API key	<p>This sensor requires sufficient rights to query data from the AWS API.</p> <ul style="list-style-type: none"> ■ For more information, see the Knowledge Base: How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <ul style="list-style-type: none"> ⓘ If the framework is missing, you cannot create this sensor. ■ For more information, see the Knowledge Base: Which .NET version does PRTG require?

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG looks for configured alarms on CloudWatch.

- ⓘ This can take up to several minutes.
- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Amazon CloudWatch Specific

Setting	Description
Services	<p>Select the services that you want to monitor. PRTG creates one sensor for each service that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus sign, and a 'Priority' field with five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> cloudwatchsensor alarm
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Amazon CloudWatch Specific

Amazon CloudWatch Specific

Region ⓘ *US East (Northern Virginia)*









Description ⓘ *...*

ID ⓘ *...*

Result Handling ⓘ Discard result
 Store result

Amazon CloudWatch Specific

Setting	Description
Region	Shows the region in which the AWS instance runs. It is one of the following regions: <ul style="list-style-type: none"> US East (Northern Virginia) US East (Ohio) US West (Northern California) US West (Oregon) Europe (Stockholm)

Setting	Description
	<ul style="list-style-type: none"> ▪ Europe (Ireland) ▪ Europe (London) ▪ Europe (Paris) ▪ Europe (Frankfurt) ▪ Asia Pacific (Tokyo) ▪ Asia Pacific (Seoul) ▪ Asia Pacific (Mumbai) ▪ Asia Pacific (Singapore) ▪ Asia Pacific (Sydney) ▪ South America (São Paulo) ▪ Canada (Central) <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p> <p> For more information, see section Supported Regions and Their Codes .</p>
Description	<p>Shows the description of the AWS service instance that this sensor monitors.</p> <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
ID	<p>Shows the ID of the AWS instance that this sensor monitors.</p> <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory  on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click ⓘ to interrupt the [inheritance](#).

Scanning Interval	
Scanning Interval ⓘ	60 seconds
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Supported Regions and Their Codes

Region	Code
US East (Northern Virginia)	us-east-1
US East (Ohio)	us-east-2
US West (Northern California)	us-west-1
US West (Oregon)	us-west-2
Europe (Stockholm)	eu-north-1
Europe (Ireland)	eu-west-1
Europe (London)	eu-west-2
Europe (Paris)	eu-west-3
Europe (Frankfurt)	eu-central-1
Asia Pacific (Tokyo)	ap-northeast-1
Asia Pacific (Seoul)	ap-northeast-2
Asia Pacific (Mumbai)	ap-south-1

Region	Code
Asia Pacific (Singapore)	ap-southeast-1
Asia Pacific (Sydney)	ap-southeast-2
South America (São Paulo)	sa-east-1
Canada (Central)	ca-central-1

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Alarm State	<p>The status of an alarm for a CloudWatch service</p> <ul style="list-style-type: none"> Up status¹⁹⁷: Ok Warning status: Insufficient Data Down status: Failed <p>i This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>

More

■ KNOWLEDGE BASE

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>

How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?

- <https://kb.paessler.com/en/topic/37543>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>





What security features does PRTG include?

Part 7: Device and Sensor Setup | 8 Sensor Settings
3 Amazon CloudWatch Alarm Sensor

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

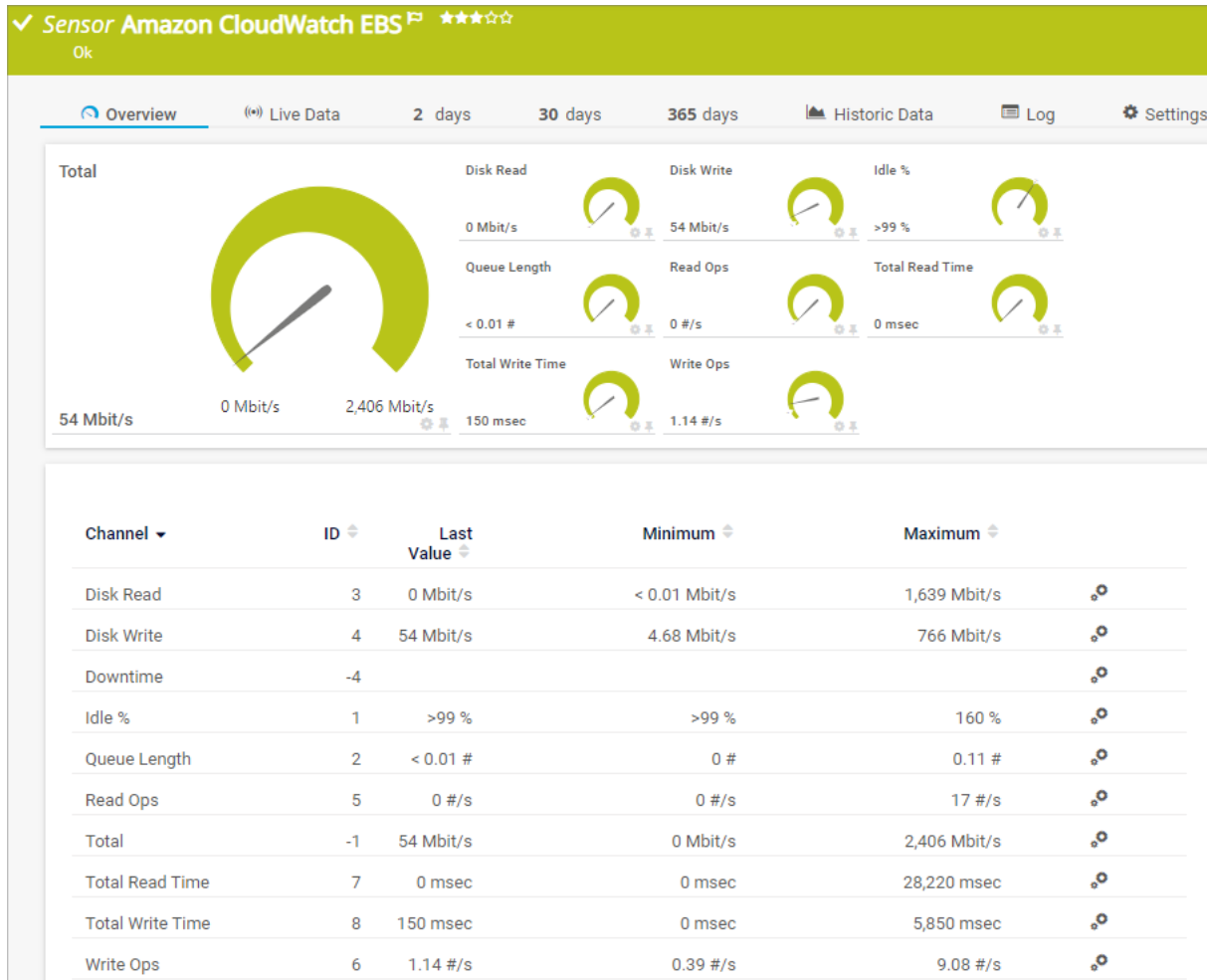
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.4 Amazon CloudWatch EBS Sensor

The Amazon CloudWatch EBS sensor monitors the performance of the Amazon Cloud service Elastic Block Store (EBS).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ⁵³⁸.

For a list of metrics that this sensor supports, see section [Supported Metrics](#) ⁵³⁴.



Amazon CloudWatch EBS Sensor

Sensor in Other Languages

- Dutch: Amazon CloudWatch EBS
- French: Amazon CloudWatch EBS
- German: Amazon CloudWatch EBS
- Japanese: Amazon CloudWatch EBS
- Portuguese: Amazon CloudWatch EBS
- Russian: Amazon CloudWatch EBS
- Simplified Chinese: Amazon CloudWatch EBS

- Spanish: Amazon CloudWatch EBS

Remarks

- This sensor requires access rights for CloudWatch queries. For details, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)
- This sensor requires .NET 4.7.2 or later on the probe system.
- Define [credentials for AWS](#) ^[459] in settings that are higher in the [object hierarchy](#) ^[138], for example, in the settings of the parent device.
- The minimum scanning interval for this sensor is 15 minutes.
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- This sensor only shows the channels for which it receives data from Amazon. You can check the availability of data in your CloudWatch Console on the Amazon Web Services (AWS) website. To know which channels are possible for the various services of this sensor, see section Supported Metrics. If the sensor has not received data from Amazon for more than 6 hours, it shows a Down status.
- Configure [notification triggers](#) ^[387] with a latency of 0 seconds to receive all notifications for this sensor ([\[...\] for at least 0 seconds](#)).
- To know which dimensions you can monitor, see section Supported Dimensions.
- Amazon charges you for each AWS API request that the sensor sends to the Amazon servers. For details, see the Knowledge Base: [How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?](#)

Detailed Requirements

Requirement	Description
Permissions for the AWS API key	<p>This sensor requires sufficient rights to query data from the AWS API.</p> <ul style="list-style-type: none"> ■ For more information, see the Knowledge Base: How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <ul style="list-style-type: none"> ⓘ If the framework is missing, you cannot create this sensor. ■ For more information, see the Knowledge Base: Which .NET version does PRTG require?

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG looks for available instances.

- i** This can take up to several minutes.
- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Amazon CloudWatch Specific

Setting	Description
Services	<p>Select the services that you want to monitor. PRTG creates one sensor for each service that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name **i** Example Name

Tags **i** exampletag ✕ +

Priority **i** ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree ¹⁸³, as well as in alarms ²²⁸, logs ²³⁷, notifications ⁴⁰³, reports ⁴⁰⁶, maps ⁴⁰⁶, libraries ⁴⁰⁷, and tickets ²⁴⁰.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ cloudwatchsensor ▪ ebs
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Amazon CloudWatch Specific

Amazon CloudWatch Specific

Region ⓘ *Asia Pacific (Mumbai)*

Description ⓘ

ID ⓘ


Result Handling ⓘ

Discard result

Store result


Amazon CloudWatch Specific


Setting	Description
Region	<p>Shows the region in which the AWS instance runs. It is one of the following regions:</p> <ul style="list-style-type: none"> ▪ US East (Northern Virginia) ▪ US East (Ohio) ▪ US West (Northern California) ▪ US West (Oregon) ▪ Europe (Stockholm) ▪ Europe (Ireland) ▪ Europe (London) ▪ Europe (Paris) ▪ Europe (Frankfurt) ▪ Asia Pacific (Tokyo) ▪ Asia Pacific (Seoul) ▪ Asia Pacific (Mumbai) ▪ Asia Pacific (Singapore) ▪ Asia Pacific (Sydney) ▪ South America (São Paulo) ▪ Canada (Central) <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p> <p> ■ For more information, see section Supported Regions and Their Codes ⁵³⁵.</p>

Setting	Description
Description	<p>Shows the description of the AWS service instance that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
ID	<p>Shows the ID of the AWS instance that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display


Sensor Display

Primary Channel  Downtime


Graph Type  Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[3977]).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.


Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].



Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

 This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#)^[4187] settings are not available for this sensor.

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> i You can change the available intervals in the system administration on PRTG on premises installations. </p> <p> i The minimum scanning interval of this sensor is 15 minutes. </p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p> i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply. </p> <p> i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply. </p>

Setting	Description
	<p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None ▼

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

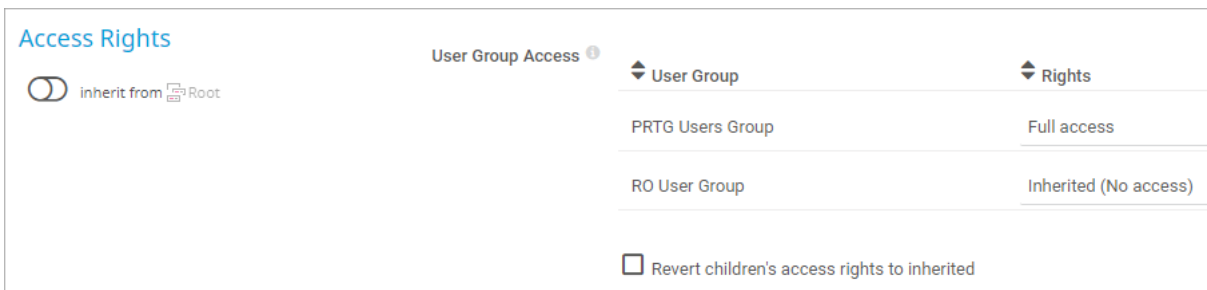
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click Q and use the object selector ²⁵¹ to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>


Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights

User Group Access ⓘ

inherit from  Root

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Supported Metrics

The Amazon CloudWatch EBS sensor supports the following metrics:

- VolumeTotalReadTime (Sum)
- VolumeTotalWriteTime (Sum)

- VolumeReadBytes (Sum)
- VolumeWriteOps (Sum)
- VolumeReadOps (Sum)
- VolumeWriteBytes (Sum)
- VolumeConsumedReadWriteOps (Sum)
- VolumeQueueLength (Average)
- VolumeldleTime (Sum)

Supported Dimensions

The Amazon CloudWatch EBS sensor supports the following dimensions

- Volume

Supported Regions and Their Codes

Region	Code
US East (Northern Virginia)	us-east-1
US East (Ohio)	us-east-2
US West (Northern California)	us-west-1
US West (Oregon)	us-west-2
Europe (Stockholm)	eu-north-1
Europe (Ireland)	eu-west-1
Europe (London)	eu-west-2
Europe (Paris)	eu-west-3
Europe (Frankfurt)	eu-central-1
Asia Pacific (Tokyo)	ap-northeast-1
Asia Pacific (Seoul)	ap-northeast-2
Asia Pacific (Mumbai)	ap-south-1

Region	Code
Asia Pacific (Singapore)	ap-southeast-1
Asia Pacific (Sydney)	ap-southeast-2
South America (São Paulo)	sa-east-1
Canada (Central)	ca-central-1

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Disk Read	The disk read speed in bytes per second
Disk Write	The disk write speed in bytes per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Idle %	The idle time with no submitted operations in percent
Queue Length	The number of read and write operations waiting to be completed
Read Ops	The number of disk read operations per second
Total	The total volume of input/output (I/O) operations in bytes per second i This channel is the primary channel by default.
Total Read Time	The total disk read time in milliseconds (msec)
Total Write Time	The total disk write time in msec
Write Ops	The number of disk write operations per second

More

KNOWLEDGE BASE

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>

How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?

- <https://kb.paessler.com/en/topic/37543>

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

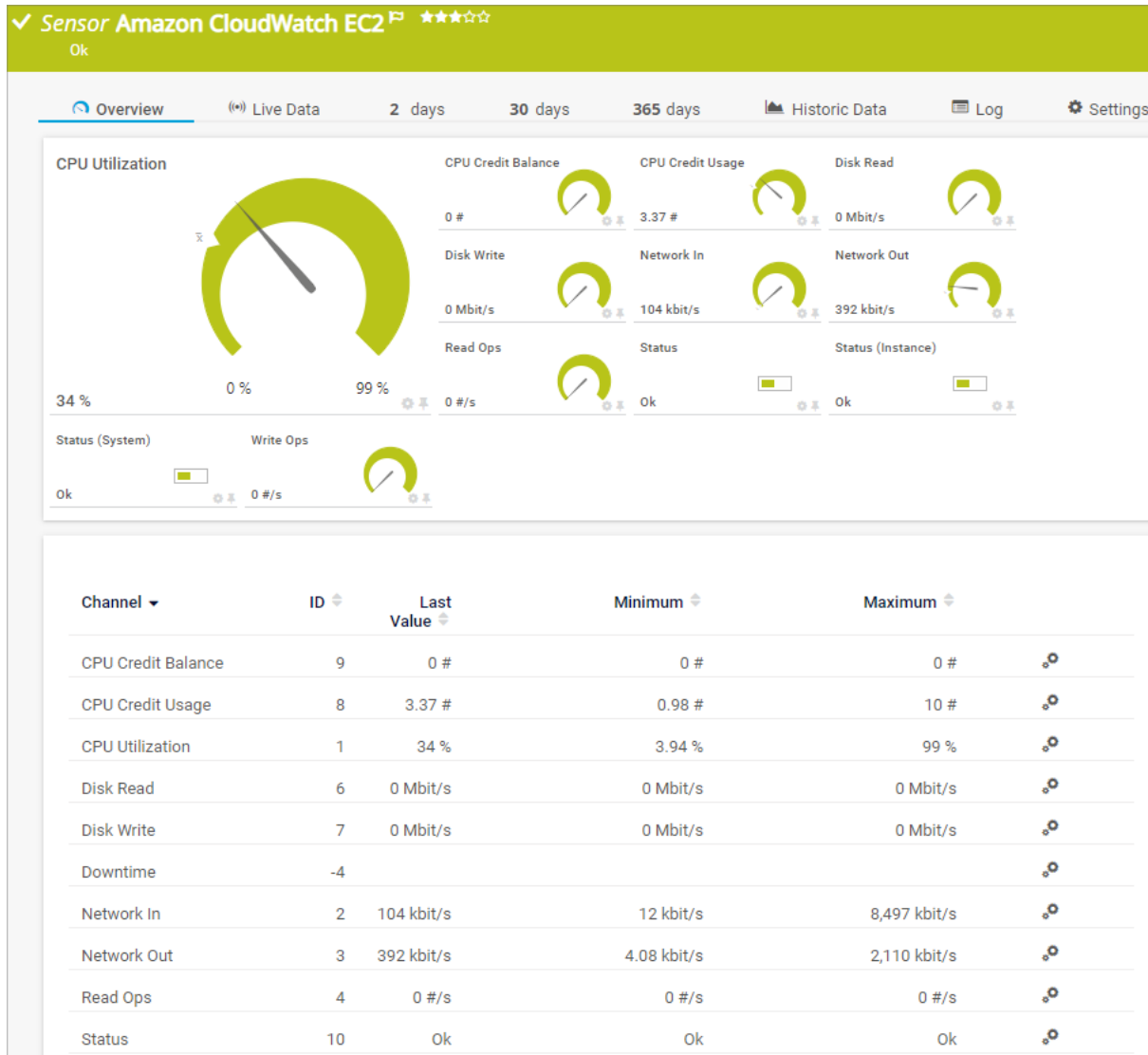
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.5 Amazon CloudWatch EC2 Sensor

The Amazon CloudWatch EC2 sensor monitors the performance of the Amazon Cloud service Elastic Compute Cloud (EC2).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)⁵⁵¹.

For a list of metrics that this sensor supports, see section [Supported Metrics](#)⁵⁵⁰.



Amazon CloudWatch EC2 Sensor

Sensor in Other Languages

- Dutch: Amazon CloudWatch EC2
- French: Amazon CloudWatch EC2
- German: Amazon CloudWatch EC2
- Japanese: Amazon CloudWatch EC2

- Portuguese: Amazon CloudWatch EC2
- Russian: Amazon CloudWatch EC2
- Simplified Chinese: Amazon CloudWatch EC2
- Spanish: Amazon CloudWatch EC2

Remarks

- This sensor requires access rights for CloudWatch queries. For details, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)
- This sensor requires .NET 4.7.2 or later on the probe system.
- Define [credentials for AWS](#) ^[459] in settings that are higher in the [object hierarchy](#) ^[138], for example, in the settings of the parent device.
- The minimum scanning interval for this sensor is 15 minutes.
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- This sensor only shows the channels for which it receives data from Amazon. You can check the availability of data in your CloudWatch Console on the Amazon Web Services (AWS) website. To know which channels are possible for the various services of this sensor, see section Supported Metrics. If the sensor has not received data from Amazon for more than 6 hours, it shows a Down status.
- Configure [notification triggers](#) ^[397] with a latency of 0 seconds to receive all notifications for this sensor ([\[...\] for at least 0 seconds](#)).
- To know which dimensions you can monitor, see section Supported Dimensions.
- Amazon charges you for each AWS API request that the sensor sends to the Amazon servers. For details, see the Knowledge Base: [How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?](#)

Detailed Requirements

Requirement	Description
Permissions for the AWS API key	<p>This sensor requires sufficient rights to query data from the AWS API.</p> <ul style="list-style-type: none"> ■ For more information, see the Knowledge Base: How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <ul style="list-style-type: none"> ⓘ If the framework is missing, you cannot create this sensor. ■ For more information, see the Knowledge Base: Which .NET version does PRTG require?

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG looks for available instances or auto scaling groups.

- i** This can take up to several minutes.
- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Amazon CloudWatch Specific

Setting	Description
Services	<p>Select the services that you want to monitor. PRTG creates one sensor for each service that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a blue 'x' to remove it and a '+' to add more.
- Priority:** A row of five stars, with the first three filled, indicating a priority level of 3.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ cloudwatchsensor ▪ ec2
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Amazon CloudWatch Specific

Amazon CloudWatch Specific

Region ⓘ Canada (Central)

Description ⓘ [Redacted]

ID ⓘ [Redacted]

Result Handling ⓘ

Discard result

Store result

Detailed Monitoring ⓘ

Enabled

Disabled

Amazon CloudWatch Specific

Setting	Description
Region	<p>Shows the region in which the AWS instance runs. It is one of the following regions:</p> <ul style="list-style-type: none"> ▪ US East (Northern Virginia) ▪ US East (Ohio) ▪ US West (Northern California) ▪ US West (Oregon) ▪ Europe (Stockholm) ▪ Europe (Ireland) ▪ Europe (London) ▪ Europe (Paris) ▪ Europe (Frankfurt) ▪ Asia Pacific (Tokyo) ▪ Asia Pacific (Seoul) ▪ Asia Pacific (Mumbai) ▪ Asia Pacific (Singapore) ▪ Asia Pacific (Sydney) ▪ South America (São Paulo) ▪ Canada (Central)

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p> <p>■ For more information, see section Supported Regions and Their Codes^[551].</p>
Description	<p>Shows the description of the AWS service instance that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
ID	<p>Shows the ID of the AWS instance that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>
Detailed Monitoring	<p>Select whether you would like to import more or less detailed monitoring data from the AWS API:</p> <ul style="list-style-type: none"> ▪ Enabled: You get 1 dataset per minute. ▪ Disabled (default): You get 1 dataset per 5 minutes. <p>i To use detailed monitoring, you must also activate it for your monitored instance in the AWS web console.</p>


Sensor Display

Sensor Display


Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval


Click  to interrupt the [inheritance](#)¹⁴².

i This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#)⁴¹⁸⁷ settings are not available for this sensor.

Scanning Interval

 inherit from  Root

Scanning Interval  60 seconds

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>i The minimum scanning interval of this sensor is 15 minutes.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails.

Setting	Description
	<p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** None



Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00)



Setting	Description
	<ul style="list-style-type: none"> ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>


Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

 inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Supported Metrics

The Amazon CloudWatch EC2 sensor supports the following metrics:

- CPUUtilization (Average)
- NetworkIn (Sum)
- NetworkOut (Sum)
- DiskReadBytes (Sum)
- DiskReadOps (Sum)
- DiskWriteBytes (Sum)
- DiskWriteOps (Sum)
- CPUCreditUsage (Average)
- CPUCreditBalance (Average)
- StatusCheckFailed (Maximum)
- StatusCheckFailed_Instance (Maximum)
- StatusCheckFailed_System (Maximum)

Supported Dimensions

The Amazon CloudWatch EC2 sensor supports the following dimensions:

- Instance
- Auto Scaling Group

Supported Regions and Their Codes

Region	Code
US East (Northern Virginia)	us-east-1
US East (Ohio)	us-east-2
US West (Northern California)	us-west-1
US West (Oregon)	us-west-2
Europe (Stockholm)	eu-north-1
Europe (Ireland)	eu-west-1
Europe (London)	eu-west-2
Europe (Paris)	eu-west-3
Europe (Frankfurt)	eu-central-1
Asia Pacific (Tokyo)	ap-northeast-1
Asia Pacific (Seoul)	ap-northeast-2
Asia Pacific (Mumbai)	ap-south-1
Asia Pacific (Singapore)	ap-southeast-1
Asia Pacific (Sydney)	ap-southeast-2
South America (São Paulo)	sa-east-1
Canada (Central)	ca-central-1

Channel List

- ❗ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU Credit Balance	The CPU credit balance
CPU Credit Usage	The CPU credit usage
CPU Utilization	The CPU usage in percent i This channel is the primary channel by default.
Disk Read	The disk read speed in bytes per second
Disk Write	The disk write speed in bytes per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Network In	The incoming network load in bytes per second
Network Out	The outgoing network load in bytes per second
Read Ops	The number of disk read operations per second
Status	The EC2 status <ul style="list-style-type: none"> Up status¹⁹⁷: Ok Down status: Failed
Status (Instance)	The EC2 instance status <ul style="list-style-type: none"> Up status: Ok Down status: Failed
Status (System)	The EC2 system status <ul style="list-style-type: none"> Up status: Ok Down status: Failed
Write Ops	The number of disk write operations per second

More

■ KNOWLEDGE BASE

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>

How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?

- <https://kb.paessler.com/en/topic/37543>

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

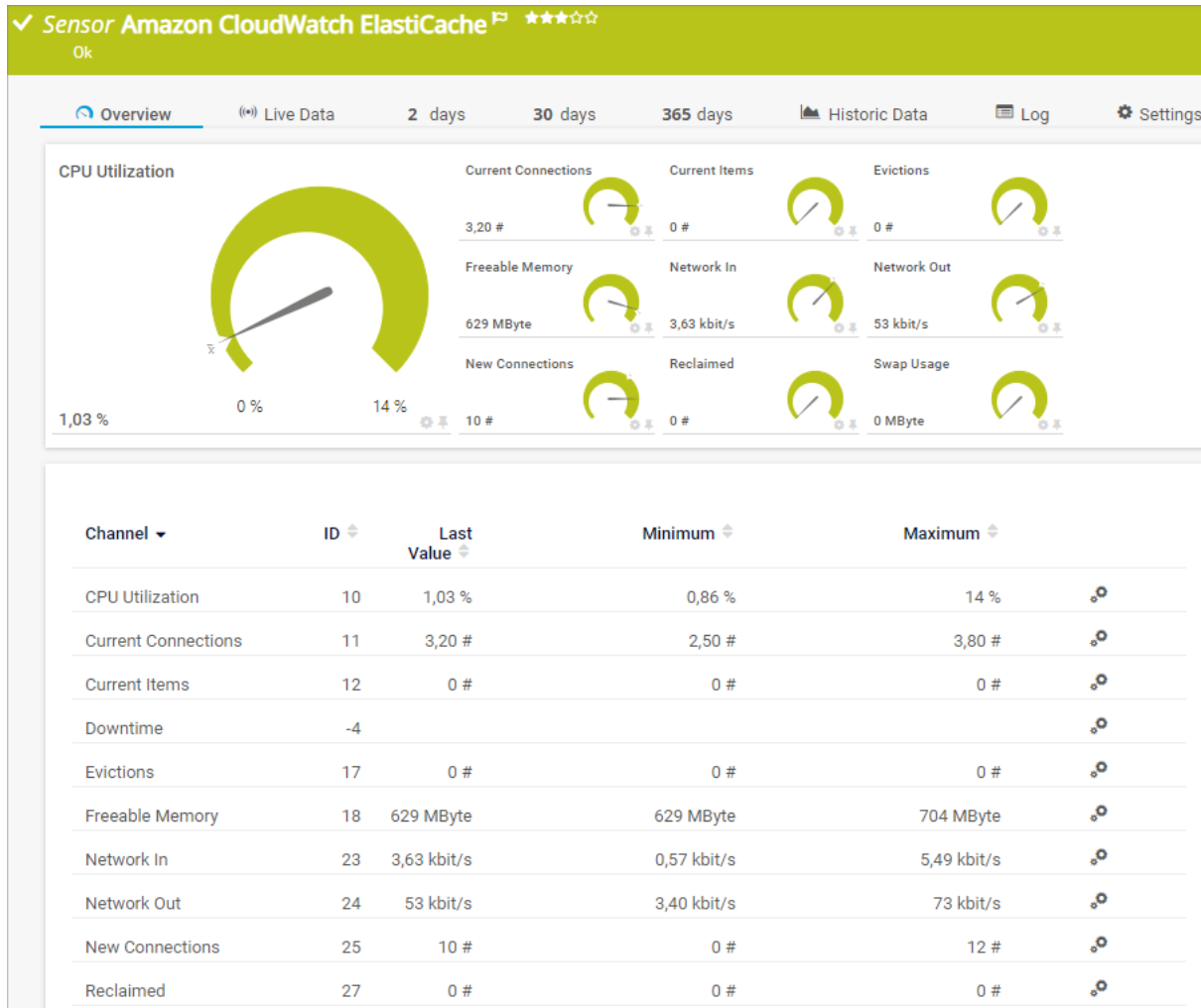
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.6 Amazon CloudWatch ElastiCache Sensor

The Amazon CloudWatch ElastiCache sensor monitors the performance of the Amazon Cloud service ElastiCache.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)⁵⁶⁷.

For a list of metrics that this sensor supports, see section [Supported Metrics](#)⁵⁶⁵.



Amazon CloudWatch ElastiCache Sensor

Sensor in Other Languages

- Dutch: Amazon CloudWatch ElastiCache
- French: Amazon CloudWatch ElastiCache
- German: Amazon CloudWatch ElastiCache
- Japanese: Amazon CloudWatch ElastiCache
- Portuguese: Amazon CloudWatch ElastiCache
- Russian: Amazon CloudWatch ElastiCache

- Simplified Chinese: Amazon CloudWatch ElastiCache
- Spanish: Amazon CloudWatch ElastiCache

Remarks

- This sensor requires access rights for CloudWatch queries. For details, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)
- This sensor requires .NET 4.7.2 or later on the probe system.
- Define [credentials for AWS](#) [459] in settings that are higher in the [object hierarchy](#) [138], for example, in the settings of the parent device.
- The minimum scanning interval for this sensor is 15 minutes.
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- This sensor only shows the channels for which it receives data from Amazon. You can check the availability of data in your CloudWatch Console on the Amazon Web Services (AWS) website. To know which channels are possible for the various services of this sensor, see section Supported Metrics. If the sensor has not received data from Amazon for more than 6 hours, it shows a Down status.
- Configure [notification triggers](#) [387] with a latency of 0 seconds to receive all notifications for this sensor ([...] for at least 0 seconds).
- To know which dimensions you can monitor, see section Supported Dimensions.
- Amazon charges you for each AWS API request that the sensor sends to the Amazon servers. For details, see the Knowledge Base: [How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?](#)

Detailed Requirements

Requirement	Description
Permissions for the AWS API key	<p>This sensor requires sufficient rights to query data from the AWS API.</p> <ul style="list-style-type: none"> ■ For more information, see the Knowledge Base: How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <ul style="list-style-type: none"> ⓘ If the framework is missing, you cannot create this sensor. ■ For more information, see the Knowledge Base: Which .NET version does PRTG require?

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG looks for available cache clusters or cache cluster nodes.

i This can take up to several minutes.

Amazon CloudWatch Specific

Setting	Description
Services	<p>Select the services that you want to monitor. PRTG creates one sensor for each service that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list of tags with a search box and a plus sign. One tag 'exampletag' is visible with an 'x' to remove it.
- Priority:** A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited. ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ cloudwatchsensor ▪ elasticache
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Amazon CloudWatch Specific

Amazon CloudWatch Specific





Region ⓘ *US East (Northern Virginia)*

Description ⓘ *cloudwatchsensor*

ID ⓘ *sensor*

Result Handling ⓘ Discard result
 Store result

Amazon CloudWatch Specific

Setting	Description
Region	<p>Shows the region in which the AWS instance runs. It is one of the following regions:</p> <ul style="list-style-type: none"> ▪ US East (Northern Virginia) ▪ US East (Ohio) ▪ US West (Northern California) ▪ US West (Oregon) ▪ Europe (Stockholm) ▪ Europe (Ireland) ▪ Europe (London) ▪ Europe (Paris) ▪ Europe (Frankfurt) ▪ Asia Pacific (Tokyo) ▪ Asia Pacific (Seoul) ▪ Asia Pacific (Mumbai) ▪ Asia Pacific (Singapore) ▪ Asia Pacific (Sydney) ▪ South America (São Paulo) ▪ Canada (Central) <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p> <p> For more information, see section Supported Regions and Their Codes ⁵⁶⁶.</p>
Description	<p>Shows the description of the AWS service instance that this sensor monitors.</p> <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
ID	<p>Shows the ID of the AWS instance that this sensor monitors.</p> <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result.

Setting	Description
	<ul style="list-style-type: none"> Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings





By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click  to interrupt the inheritance.

i This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#) settings are not available for this sensor.

Scanning Interval	
 inherit from  Root	Scanning Interval  60 seconds
	If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>i The minimum scanning interval of this sensor is 15 minutes.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from Root

Channel Unit Types ?

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Supported Metrics

The Amazon CloudWatch ElastiCache sensor supports the following metrics:

- CPUUtilization (Average)
- CurrConnections (Average)
- CurrItems (Average)
- NewItems (Sum)
- NewConnections (Sum)
- FreeableMemory (Average)
- UnusedMemory (Average)

- SwapUsage (Average)
- BytesUsedForCacheItems (Average)
- BytesReadIntoMemcached (Sum)
- BytesWrittenOutFromMemcached (Sum)
- NetworkBytesIn (Sum)
- NetworkBytesOut (Sum)
- Evictions (Sum)
- Reclaimed (Sum)
- CasBadval (Sum)
- CasHits (Sum)
- CasMisses (Sum)
- CmdFlush (Sum)
- Cmdget (Sum)
- Cmdset (Sum)
- DecrMisses (Sum)
- DecrHits (Sum)
- DeleteHits (Sum)
- DeleteMisses (Sum)
- GetHits (Sum)
- GetMisses (Sum)
- IncrHits (Sum)
- IncrMisses (Sum)

Supported Dimensions

The Amazon CloudWatch ElastiCache sensor supports the following dimensions:

- Cache Cluster
- Cache Cluster Node

Supported Regions and Their Codes

Region	Code
US East (Northern Virginia)	us-east-1
US East (Ohio)	us-east-2

Region	Code
US West (Northern California)	us-west-1
US West (Oregon)	us-west-2
Europe (Stockholm)	eu-north-1
Europe (Ireland)	eu-west-1
Europe (London)	eu-west-2
Europe (Paris)	eu-west-3
Europe (Frankfurt)	eu-central-1
Asia Pacific (Tokyo)	ap-northeast-1
Asia Pacific (Seoul)	ap-northeast-2
Asia Pacific (Mumbai)	ap-south-1
Asia Pacific (Singapore)	ap-southeast-1
Asia Pacific (Sydney)	ap-southeast-2
South America (São Paulo)	sa-east-1
Canada (Central)	ca-central-1

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU Utilization	The CPU usage in percent i This channel is the primary channel by default.
Current Connections	The number of current connections

Channel	Description
Current Items	The number of current items
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Evictions	The number of evictions
Freeable Memory	The freeable memory in bytes
Network In	The incoming network load in bytes per second
Network Out	The outgoing network load in bytes per second
New Connections	The number of new connections
Reclaimed	The number of reclaimed items
Swap Usage	The swap usage in bytes

More

■ KNOWLEDGE BASE

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>

How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?

- <https://kb.paessler.com/en/topic/37543>

Which .NET version does PRTG require?




- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977

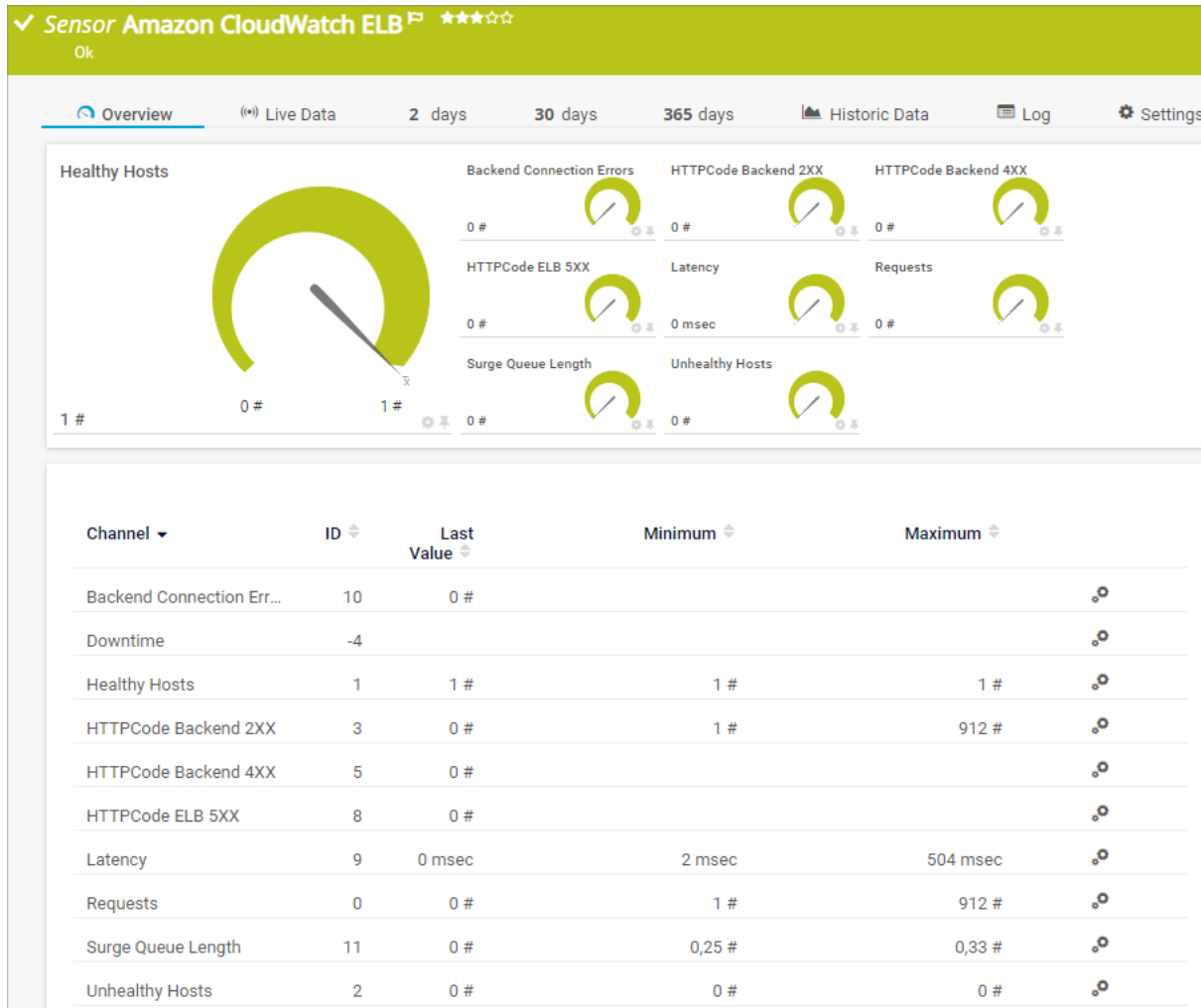
- [Notification Triggers Settings](#) 

7.8.7 Amazon CloudWatch ELB Sensor

The Amazon CloudWatch ELB sensor monitors the performance of the Amazon Cloud service Elastic Load Balancing (ELB).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ⁵⁸³.

For a list of metrics that this sensor supports, see section [Supported Metrics](#) ⁵⁸¹.



Amazon CloudWatch ELB Sensor

Sensor in Other Languages

- Dutch: Amazon CloudWatch ELB
- French: Amazon CloudWatch ELB
- German: Amazon CloudWatch ELB
- Japanese: Amazon CloudWatch ELB
- Portuguese: Amazon CloudWatch ELB
- Russian: Amazon CloudWatch ELB

- Simplified Chinese: Amazon CloudWatch ELB
- Spanish: Amazon CloudWatch ELB

Remarks

- This sensor requires access rights for CloudWatch queries. For details, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)
- This sensor requires .NET 4.7.2 or later on the probe system.
- Define [credentials for AWS](#) in settings that are higher in the [object hierarchy](#), for example, in the settings of the parent device.
- The minimum scanning interval for this sensor is 15 minutes.
- This sensor only supports [Classic Load Balancers](#).
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- This sensor only shows the channels for which it receives data from Amazon. You can check the availability of data in your CloudWatch Console on the Amazon Web Services (AWS) website. To know which channels are possible for the various services of this sensor, see section Supported Metrics. If the sensor has not received data from Amazon for more than 6 hours, it shows a Down status.
- Configure [notification triggers](#) with a latency of 0 seconds to receive all notifications for this sensor ([...] for at least 0 seconds).
- To know which dimensions you can monitor, see section Supported Dimensions.
- Amazon charges you for each AWS API request that the sensor sends to the Amazon servers. For details, see the Knowledge Base: [How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?](#)

Detailed Requirements

Requirement	Description
Permissions for the AWS API key	<p>This sensor requires sufficient rights to query data from the AWS API.</p> <ul style="list-style-type: none"> ■ For more information, see the Knowledge Base: How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <ul style="list-style-type: none"> ⓘ If the framework is missing, you cannot create this sensor. ■ For more information, see the Knowledge Base: Which .NET version does PRTG require?

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG looks for available load balancers or availability zones.

i This can take up to several minutes.

Amazon CloudWatch Specific

Setting	Description
Services	<p>Select the services that you want to monitor. PRTG creates one sensor for each service that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings





Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list of tags with a search icon, a plus icon, and a minus icon. One tag 'exampletag' is visible.
- Priority:** A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Region	<p>Shows the region in which the AWS instance runs. It is one of the following regions:</p> <ul style="list-style-type: none"> ▪ US East (Northern Virginia) ▪ US East (Ohio) ▪ US West (Northern California) ▪ US West (Oregon) ▪ Europe (Stockholm) ▪ Europe (Ireland) ▪ Europe (London) ▪ Europe (Paris) ▪ Europe (Frankfurt) ▪ Asia Pacific (Tokyo) ▪ Asia Pacific (Seoul) ▪ Asia Pacific (Mumbai) ▪ Asia Pacific (Singapore) ▪ Asia Pacific (Sydney) ▪ South America (São Paulo) ▪ Canada (Central) <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p> <p> For more information, see section Supported Regions and Their Codes ⁵⁸².</p>
Description	<p>Shows the description of the AWS service instance that this sensor monitors.</p> <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
ID	<p>Shows the ID of the AWS instance that this sensor monitors.</p> <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result.

Setting	Description
	<ul style="list-style-type: none"> Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display


Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ

Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings





By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click  to interrupt the inheritance.

i This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#) settings are not available for this sensor.

Scanning Interval	
 inherit from  Root	Scanning Interval  60 seconds
	If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>i The minimum scanning interval of this sensor is 15 minutes.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from Root

Channel Unit Types ?

Channel Type	Unit
Bytes (Bandwidth)	KB v
	kbit v
	/ v
	sec... v
Bytes (Memory)	MB v
Bytes (Disk)	MB v
Bytes (File)	Byte v

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Supported Metrics

The Amazon CloudWatch ELB sensor supports the following metrics:

- RequestCount (Sum)
- SpilloverCount (Sum)
- HealthyHostCount (Minimum)
- UnHealthyHostCount (Maximum)
- BackendConnectionErrors (Sum)
- HTTPCode_Backend_2XX (Sum)
- HTTPCode_Backend_3XX (Sum)

- HTTPCode_Backend_4XX (Sum)
- HTTPCode_Backend_5XX (Sum)
- HTTPCode_ELB_4XX (Sum)
- HTTPCode_ELB_5XX (Sum)
- Latency (Average)
- SurgeQueueLength (Average)

Supported Dimensions

The Amazon CloudWatch ELB sensor supports the following dimensions

- Load Balancer
- Availability Zone

Supported Regions and Their Codes

Region	Code
US East (Northern Virginia)	us-east-1
US East (Ohio)	us-east-2
US West (Northern California)	us-west-1
US West (Oregon)	us-west-2
Europe (Stockholm)	eu-north-1
Europe (Ireland)	eu-west-1
Europe (London)	eu-west-2
Europe (Paris)	eu-west-3
Europe (Frankfurt)	eu-central-1
Asia Pacific (Tokyo)	ap-northeast-1
Asia Pacific (Seoul)	ap-northeast-2
Asia Pacific (Mumbai)	ap-south-1

Region	Code
Asia Pacific (Singapore)	ap-southeast-1
Asia Pacific (Sydney)	ap-southeast-2
South America (São Paulo)	sa-east-1
Canada (Central)	ca-central-1

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Backend Connection Errors	The number of backend connection errors
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Healthy Hosts	The number of healthy hosts i This channel is the primary channel by default.
HTTPCode Backend 2XX	The number of HTTP 2XX response codes
HTTPCode Backend 4XX	The number of HTTP 4XX response codes
HTTPCode ELB 5XX	The number of HTTP 5XX server error codes
Latency	The latency in milliseconds (msec)
Requests	The number of requests
Surge Queue Length	The surge queue length
Unhealthy Hosts	The number of unhealthy hosts

More

KNOWLEDGE BASE

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>

How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?

- <https://kb.paessler.com/en/topic/37543>

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

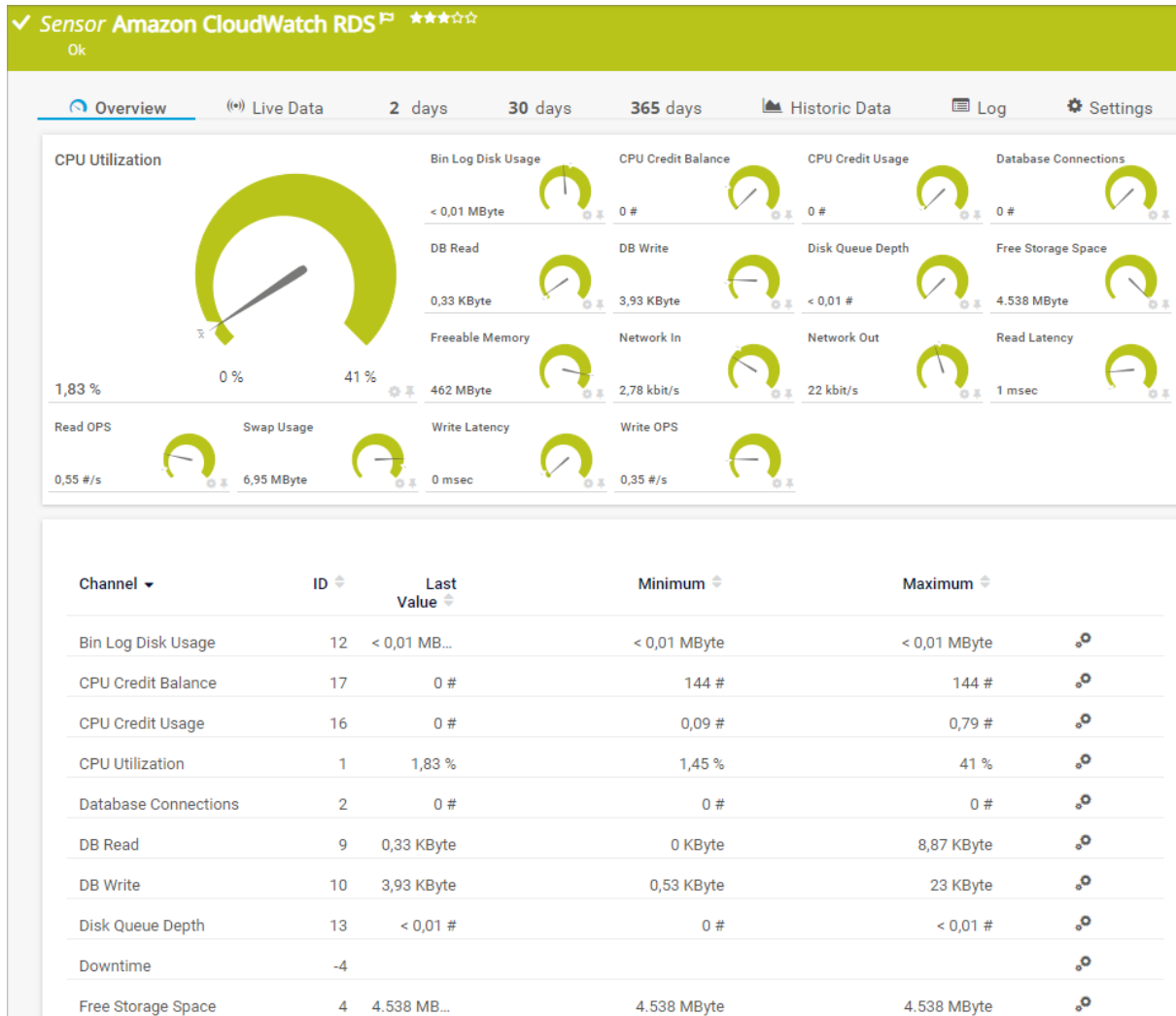
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.8 Amazon CloudWatch RDS Sensor

The Amazon CloudWatch RDS sensor monitors the performance of the Amazon Cloud service Relational Database Service (RDS).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ⁵⁹⁸.

For a list of metrics that this sensor supports, see section [Supported Metrics](#) ⁵⁹⁶.



Amazon CloudWatch RDS Sensor

Sensor in Other Languages

- Dutch: Amazon CloudWatch RDS
- French: Amazon CloudWatch RDS
- German: Amazon CloudWatch RDS
- Japanese: Amazon CloudWatch RDS
- Portuguese: Amazon CloudWatch RDS

- Russian: Amazon CloudWatch RDS
- Simplified Chinese: Amazon CloudWatch RDS
- Spanish: Amazon CloudWatch RDS

Remarks

- This sensor requires access rights for CloudWatch queries. For details, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)
- This sensor requires .NET 4.7.2 or later on the probe system.
- Define [credentials for AWS](#) in settings that are higher in the [object hierarchy](#), for example, in the settings of the parent device.
- The minimum scanning interval for this sensor is 15 minutes.
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- This sensor only shows the channels for which it receives data from Amazon. You can check the availability of data in your CloudWatch Console on the Amazon Web Services (AWS) website. To know which channels are possible for the various services of this sensor, see section Supported Metrics. If the sensor has not received data from Amazon for more than 6 hours, it shows a Down status.
- Configure [notification triggers](#) with a latency of 0 seconds to receive all notifications for this sensor ([...] for at least 0 seconds).
- To know which dimensions you can monitor, see section Supported Dimensions.
- Amazon charges you for each AWS API request that the sensor sends to the Amazon servers. For details, see the Knowledge Base: [How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?](#)

Detailed Requirements

Requirement	Description
Permissions for the AWS API key	<p>This sensor requires sufficient rights to query data from the AWS API.</p> <ul style="list-style-type: none"> ■ For more information, see the Knowledge Base: How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <ul style="list-style-type: none"> ⓘ If the framework is missing, you cannot create this sensor. ■ For more information, see the Knowledge Base: Which .NET version does PRTG require?

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG looks for available engines or database instances.

i This can take up to several minutes.

Amazon CloudWatch Specific

Setting	Description
Services	<p>Select the services that you want to monitor. PRTG creates one sensor for each service that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a delete 'x' icon and an add '+' icon.
- Priority:** A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited. ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ cloudwatchsensor ▪ rds
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Amazon CloudWatch Specific

Amazon CloudWatch Specific

Region ⓘ *Asia Pacific (Mumbai)*

Description ⓘ *Amazon CloudWatch*





ID ⓘ *1234567890*

Result Handling ⓘ

Discard result

Store result

Amazon CloudWatch Specific

Setting	Description
Region	<p>Shows the region in which the AWS instance runs. It is one of the following regions:</p> <ul style="list-style-type: none"> ▪ US East (Northern Virginia) ▪ US East (Ohio) ▪ US West (Northern California) ▪ US West (Oregon) ▪ Europe (Stockholm) ▪ Europe (Ireland) ▪ Europe (London) ▪ Europe (Paris) ▪ Europe (Frankfurt) ▪ Asia Pacific (Tokyo) ▪ Asia Pacific (Seoul) ▪ Asia Pacific (Mumbai) ▪ Asia Pacific (Singapore) ▪ Asia Pacific (Sydney) ▪ South America (São Paulo) ▪ Canada (Central) <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p> <p> For more information, see section Supported Regions and Their Codes ⁵⁸⁷.</p>
Description	<p>Shows the description of the AWS service instance that this sensor monitors.</p> <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
ID	<p>Shows the ID of the AWS instance that this sensor monitors.</p> <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result.

Setting	Description
	<ul style="list-style-type: none"> Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel Downtime

Graph Type Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings





By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click  to interrupt the [inheritance](#).

i This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#) settings are not available for this sensor.

Scanning Interval	
 inherit from  Root	Scanning Interval  60 seconds
	If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>i The minimum scanning interval of this sensor is 15 minutes.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Supported Metrics

The Amazon CloudWatch RDS sensor supports the following metrics:

- CPUUtilization (Average)
- CPUCreditUsage (Average)
- CPUCreditBalance (Average)
- DatabaseConnections (Sum)
- FreeableMemory (Sum)
- FreeStorageSpace (Average)
- SwapUsage (Sum)

- BinLogDiskUsage (Sum)
- DiskQueueDepth (Sum)
- ReplicLag (Average)
- ReadIOPS (Sum)
- WriteIOPS (Sum)
- ReadLatency (Average)
- WriteLatency (Average)
- ReadThroughput (Sum)
- WriteThroughput (Sum)
- NetworkReceiveThroughput (Sum)
- NetworkTransmitThroughput (Sum)

Supported Dimensions

The Amazon CloudWatch RDS sensor supports the following dimensions:

- Engine
- DB Instance

Supported Regions and Their Codes

Region	Code
US East (Northern Virginia)	us-east-1
US East (Ohio)	us-east-2
US West (Northern California)	us-west-1
US West (Oregon)	us-west-2
Europe (Stockholm)	eu-north-1
Europe (Ireland)	eu-west-1
Europe (London)	eu-west-2
Europe (Paris)	eu-west-3
Europe (Frankfurt)	eu-central-1

Region	Code
Asia Pacific (Tokyo)	ap-northeast-1
Asia Pacific (Seoul)	ap-northeast-2
Asia Pacific (Mumbai)	ap-south-1
Asia Pacific (Singapore)	ap-southeast-1
Asia Pacific (Sydney)	ap-southeast-2
South America (São Paulo)	sa-east-1
Canada (Central)	ca-central-1

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Bin Log Disk Usage	The bin log disk usage in bytes
CPU Credit Balance	The CPU credit balance
CPU Credit Usage	The CPU credit usage
CPU Utilization	The CPU usage in percent i This channel is the primary channel by default.
Database Connections	The number of database connections
DB Read	The database instance read in bytes
DB Write	The database instance write in bytes
Disk Queue Depth	The disk queue depth

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Storage Space	The free storage space in bytes
Freeable Memory	The freeable memory in bytes
Network In	The incoming network load in bytes per second
Network Out	The outgoing network load in bytes per second
Read Latency	The read latency in milliseconds (msec)
Read OPS	The number of disk read operations per second
Swap Usage	The swap usage in bytes
Write Latency	The write latency in msec
Write OPS	The number of disk write operations per second

More

■ KNOWLEDGE BASE

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>

How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?

- <https://kb.paessler.com/en/topic/37543>

Which .NET version does PRTG require?


- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?


- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972

Part 7: Device and Sensor Setup | 8 Sensor Settings
8 Amazon CloudWatch RDS Sensor

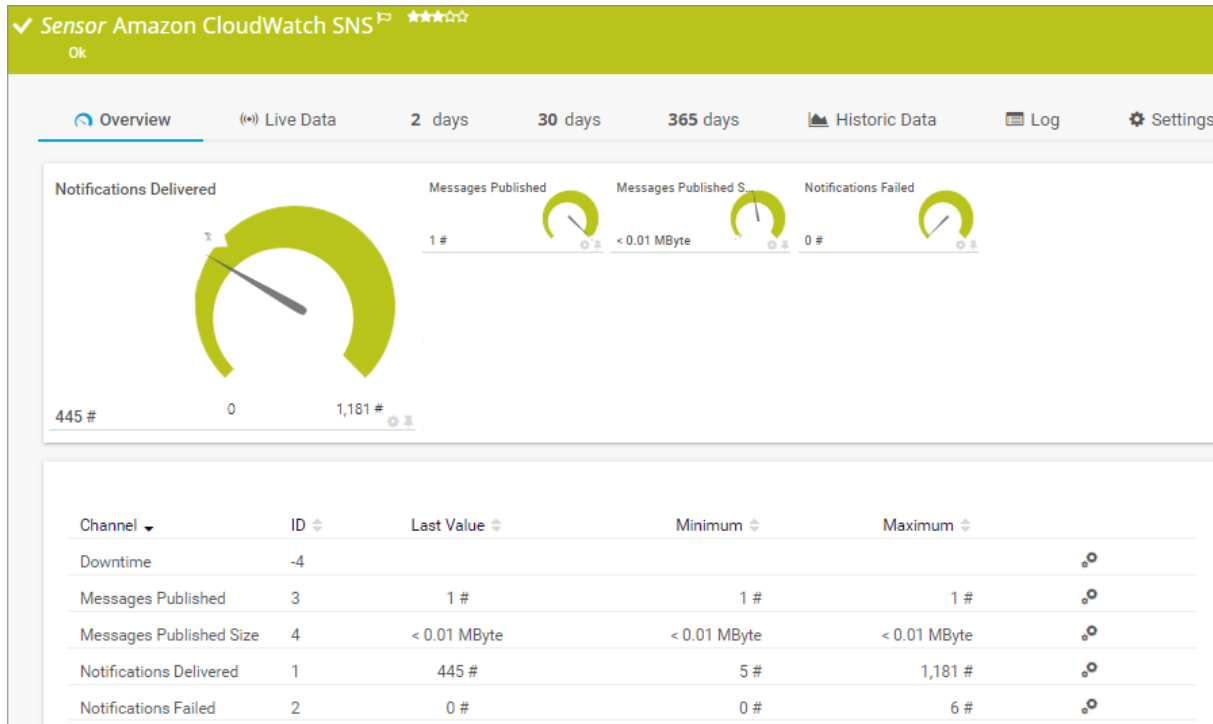
- [Channel Settings](#) 
- [Notification Triggers Settings](#) 

7.8.9 Amazon CloudWatch SNS Sensor

The Amazon CloudWatch SNS sensor monitors the performance of the Amazon Cloud service Simple Notification Service (SNS).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ⁶¹³.

For a list of metrics that this sensor supports, see section [Supported Metrics](#) ⁶¹².



Amazon CloudWatch SNS Sensor

Sensor in Other Languages

- Dutch: Amazon CloudWatch SNS
- French: Amazon CloudWatch SNS
- German: Amazon CloudWatch SNS
- Japanese: Amazon CloudWatch SNS
- Portuguese: Amazon CloudWatch SNS
- Russian: Amazon CloudWatch SNS
- Simplified Chinese: Amazon CloudWatch SNS
- Spanish: Amazon CloudWatch SNS

Remarks

- This sensor requires access rights for CloudWatch queries. For details, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)
- This sensor requires .NET 4.7.2 or later on the probe system.

- Define [credentials for AWS](#) [459] in settings that are higher in the [object hierarchy](#) [138], for example, in the settings of the parent device.
- The minimum scanning interval for this sensor is 15 minutes.
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- This sensor only shows the channels for which it receives data from Amazon. You can check the availability of data in your CloudWatch Console on the Amazon Web Services (AWS) website. To know which channels are possible for the various services of this sensor, see section Supported Metrics. If the sensor has not received data from Amazon for more than 6 hours, it shows a Down status.
- Configure [notification triggers](#) [387] with a latency of 0 seconds to receive all notifications for this sensor ([...] for at least 0 seconds).
- To know which dimensions you can monitor, see section Supported Dimensions.
- Amazon charges you for each AWS API request that the sensor sends to the Amazon servers. For details, see the Knowledge Base: [How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?](#)

Detailed Requirements

Requirement	Description
Permissions for the AWS API key	<p>This sensor requires sufficient rights to query data from the AWS API.</p> <ul style="list-style-type: none"> ■ For more information, see the Knowledge Base: How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <ul style="list-style-type: none"> ⓘ If the framework is missing, you cannot create this sensor. ■ For more information, see the Knowledge Base: Which .NET version does PRTG require?

Add Sensor

The [Add Sensor](#) [361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG looks for available applications, platforms, or topics.

ⓘ This can take up to several minutes.

Amazon CloudWatch Specific

Setting	Description
Services	<p>Select the services that you want to monitor. PRTG creates one sensor for each service that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus sign, and a 'Priority' field with five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> cloudwatchsensor sns
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Amazon CloudWatch Specific

Amazon CloudWatch Specific

Region i US East (Northern Virginia)

Description i [blurred]

ID i [blurred]

Result Handling i

Discard result
 Store result

Amazon CloudWatch Specific

Setting	Description
Region	<p>Shows the region in which the AWS instance runs. It is one of the following regions:</p> <ul style="list-style-type: none"> US East (Northern Virginia) US East (Ohio) US West (Northern California) US West (Oregon) Europe (Stockholm)

Setting	Description
	<ul style="list-style-type: none"> ▪ Europe (Ireland) ▪ Europe (London) ▪ Europe (Paris) ▪ Europe (Frankfurt) ▪ Asia Pacific (Tokyo) ▪ Asia Pacific (Seoul) ▪ Asia Pacific (Mumbai) ▪ Asia Pacific (Singapore) ▪ Asia Pacific (Sydney) ▪ South America (São Paulo) ▪ Canada (Central) <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p> <p>■ For more information, see section Supported Regions and Their Codes ⁶¹².</p>
Description	<p>Shows the description of the AWS service instance that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
ID	<p>Shows the ID of the AWS instance that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.



■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click ⓘ to interrupt the [inheritance](#).

ⓘ This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#) settings are not available for this sensor.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p> <p> ⓘ The minimum scanning interval of this sensor is 15 minutes.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Supported Metrics

The Amazon CloudWatch SNS sensor supports the following metrics:

- NumberOfNotificationsDelivered (Sum)
- NumberOfNotificationsFailed (Sum)
- NumberOfMessagesPublished (Average)
- PublishSize (Average)

Supported Dimensions

The Amazon CloudWatch SNS sensor supports the following metrics:

- Application
- Platform
- Application and Platform
- Topic

Supported Regions and Their Codes


Region	Code
US East (Northern Virginia)	us-east-1
US East (Ohio)	us-east-2

Region	Code
US West (Northern California)	us-west-1
US West (Oregon)	us-west-2
Europe (Stockholm)	eu-north-1
Europe (Ireland)	eu-west-1
Europe (London)	eu-west-2
Europe (Paris)	eu-west-3
Europe (Frankfurt)	eu-central-1
Asia Pacific (Tokyo)	ap-northeast-1
Asia Pacific (Seoul)	ap-northeast-2
Asia Pacific (Mumbai)	ap-south-1
Asia Pacific (Singapore)	ap-southeast-1
Asia Pacific (Sydney)	ap-southeast-2
South America (São Paulo)	sa-east-1
Canada (Central)	ca-central-1

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Messages Published	The number of published messages

Channel	Description
Messages Published Size	The size of the published messages in bytes
Notifications Delivered	The number of delivered notifications  This channel is the primary channel by default.
Notifications Failed	The number of failed notification

More

KNOWLEDGE BASE

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>

How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?

- <https://kb.paessler.com/en/topic/37543>

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

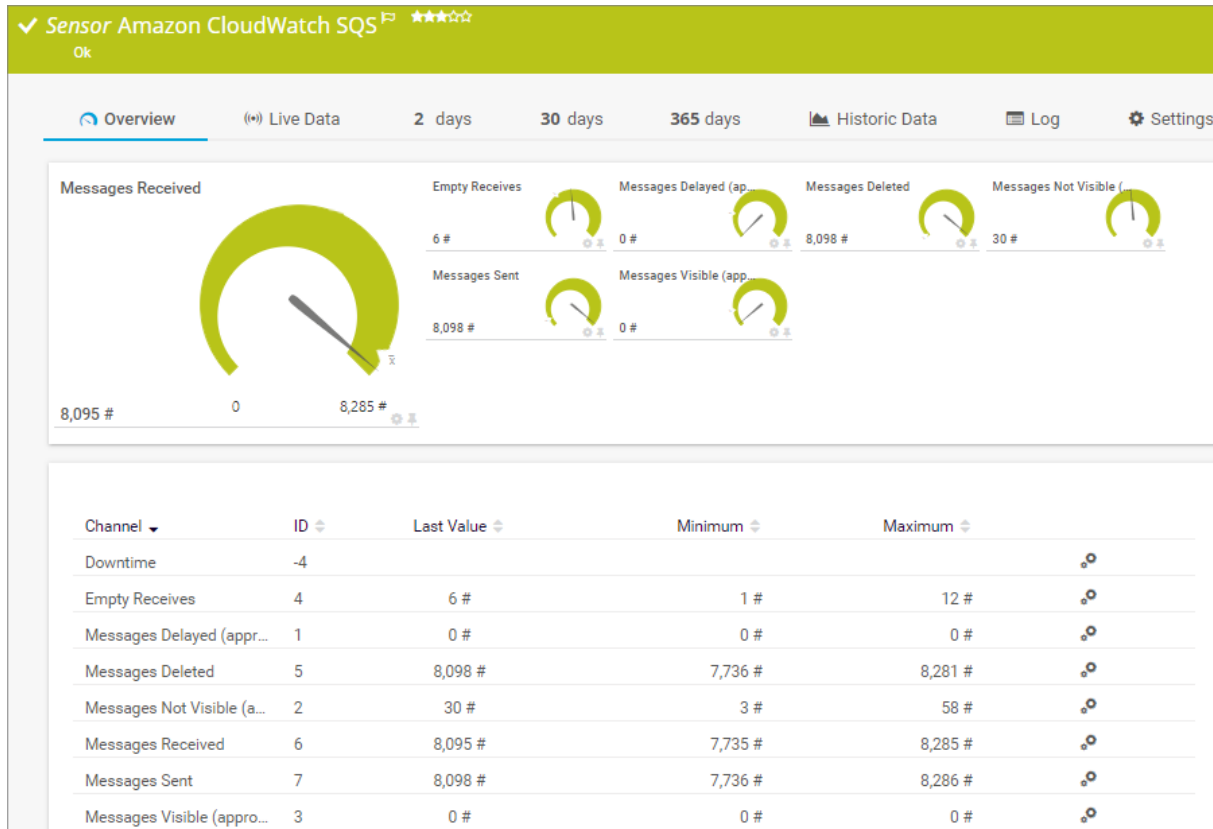
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.10 Amazon CloudWatch SQS Sensor

The Amazon CloudWatch SQS sensor monitors the performance of the Amazon Cloud service Simple Queue Service (SQS).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).

For a list of metrics that this sensor supports, see section [Supported Metrics](#).



Amazon CloudWatch SQS Sensor

Sensor in Other Languages

- Dutch: Amazon CloudWatch SQS
- French: Amazon CloudWatch SQS
- German: Amazon CloudWatch SQS
- Japanese: Amazon CloudWatch SQS
- Portuguese: Amazon CloudWatch SQS
- Russian: Amazon CloudWatch SQS
- Simplified Chinese: Amazon CloudWatch SQS
- Spanish: Amazon CloudWatch SQS

Remarks

- This sensor requires access rights for CloudWatch queries. For details, see the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)
- This sensor requires .NET 4.7.2 or later on the probe system.
- Define [credentials for AWS](#) in settings that are higher in the [object hierarchy](#), for example, in the settings of the parent device.
- The minimum scanning interval for this sensor is 15 minutes.
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- This sensor only shows the channels for which it receives data from Amazon. You can check the availability of data in your CloudWatch Console on the Amazon Web Services (AWS) website. To know which channels are possible for the various services of this sensor, see section Supported Metrics. If the sensor has not received data from Amazon for more than 6 hours, it shows a Down status.
- Configure [notification triggers](#) with a latency of 0 seconds to receive all notifications for this sensor ([\[...\] for at least 0 seconds](#)).
- To know which dimensions you can monitor, see section Supported Dimensions.
- Amazon charges you for each AWS API request that the sensor sends to the Amazon servers. For details, see the Knowledge Base: [How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?](#)

Detailed Requirements

Requirement	Description
Permissions for the AWS API key	<p>This sensor requires sufficient rights to query data from the AWS API.</p> <ul style="list-style-type: none"> ■ For more information, see the Knowledge Base: How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <ul style="list-style-type: none"> ⓘ If the framework is missing, you cannot create this sensor. ■ For more information, see the Knowledge Base: Which .NET version does PRTG require?

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG looks for available queues.

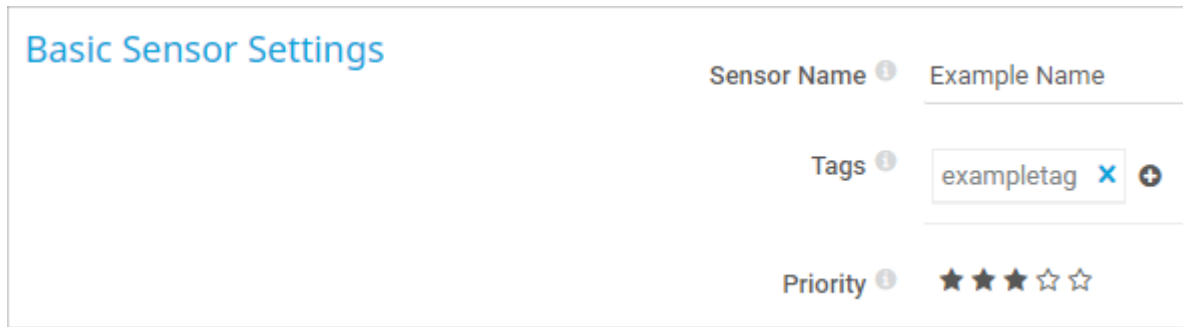
i This can take up to several minutes.

Amazon CloudWatch Specific

Setting	Description
Services	<p>Select the services that you want to monitor. PRTG creates one sensor for each service that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.



Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> ❗ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ❗ For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ cloudwatchsensor ▪ sqs
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

❗ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Amazon CloudWatch Specific

Amazon CloudWatch Specific

Region ⓘ *US West (Oregon)*

Description ⓘ *CloudWatch*

ID ⓘ *...*





Result Handling ⓘ

Discard result

Store result

Amazon CloudWatch Specific

Setting	Description
Region	Shows the region in which the AWS instance runs. It is one of the following regions:

Setting	Description
	<ul style="list-style-type: none"> ▪ US East (Northern Virginia) ▪ US East (Ohio) ▪ US West (Northern California) ▪ US West (Oregon) ▪ Europe (Stockholm) ▪ Europe (Ireland) ▪ Europe (London) ▪ Europe (Paris) ▪ Europe (Frankfurt) ▪ Asia Pacific (Tokyo) ▪ Asia Pacific (Seoul) ▪ Asia Pacific (Mumbai) ▪ Asia Pacific (Singapore) ▪ Asia Pacific (Sydney) ▪ South America (São Paulo) ▪ Canada (Central) <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p> <p> For more information, see section Supported Regions and Their Codes ^[627].</p>
Description	<p>Shows the description of the AWS service instance that this sensor monitors.</p> <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
ID	<p>Shows the ID of the AWS instance that this sensor monitors.</p> <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ^[4526] on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval.

Setting	Description
	<p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none"> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings





By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click  to interrupt the [inheritance](#).

i This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#) settings are not available for this sensor.

Scanning Interval	
 inherit from  Root	Scanning Interval  60 seconds
	If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>i The minimum scanning interval of this sensor is 15 minutes.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from Root

Channel Unit Types ⓘ

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> ⓘ Custom channel types are only available on sensor level.</p>

Supported Metrics

The Amazon CloudWatch SQS sensor supports the following metrics:

- SentMessageSize (Sum)
- NumberOfMessagesSent (Sum)
- NumberOfMessagesReceived (Sum)
- NumberOfMessagesDeleted (Sum)
- NumberOfEmptyReceives (Sum)
- ApproximateNumberOfMessagesVisible (Average)
- ApproximateNumberOfMessagesNotVisible (Average)

- ApproximateNumberOfMessagesDelayed (Average)

Supported Dimensions

The Amazon CloudWatch SQS sensor supports the following dimensions:

- Queue

Supported Regions and Their Codes

Region	Code
US East (Northern Virginia)	us-east-1
US East (Ohio)	us-east-2
US West (Northern California)	us-west-1
US West (Oregon)	us-west-2
Europe (Stockholm)	eu-north-1
Europe (Ireland)	eu-west-1
Europe (London)	eu-west-2
Europe (Paris)	eu-west-3
Europe (Frankfurt)	eu-central-1
Asia Pacific (Tokyo)	ap-northeast-1
Asia Pacific (Seoul)	ap-northeast-2
Asia Pacific (Mumbai)	ap-south-1
Asia Pacific (Singapore)	ap-southeast-1
Asia Pacific (Sydney)	ap-southeast-2
South America (São Paulo)	sa-east-1
Canada (Central)	ca-central-1

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Empty Receives	The number of empty receives
Messages Delayed (Approx.)	The approximate number of delayed messages
Messages Deleted	The number of deleted messages
Messages Not Visible (Approx.)	The approximate number of messages that are not visible
Messages Received	The number of received messages i This channel is the primary channel by default.
Messages Sent	The number of sent messages
Messages Visible (Approx.)	The approximate number of messages that are visible

More

■ KNOWLEDGE BASE

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?

- <https://kb.paessler.com/en/topic/38083>

How much does Amazon charge for using Amazon CloudWatch sensors in PRTG?

- <https://kb.paessler.com/en/topic/37543>

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

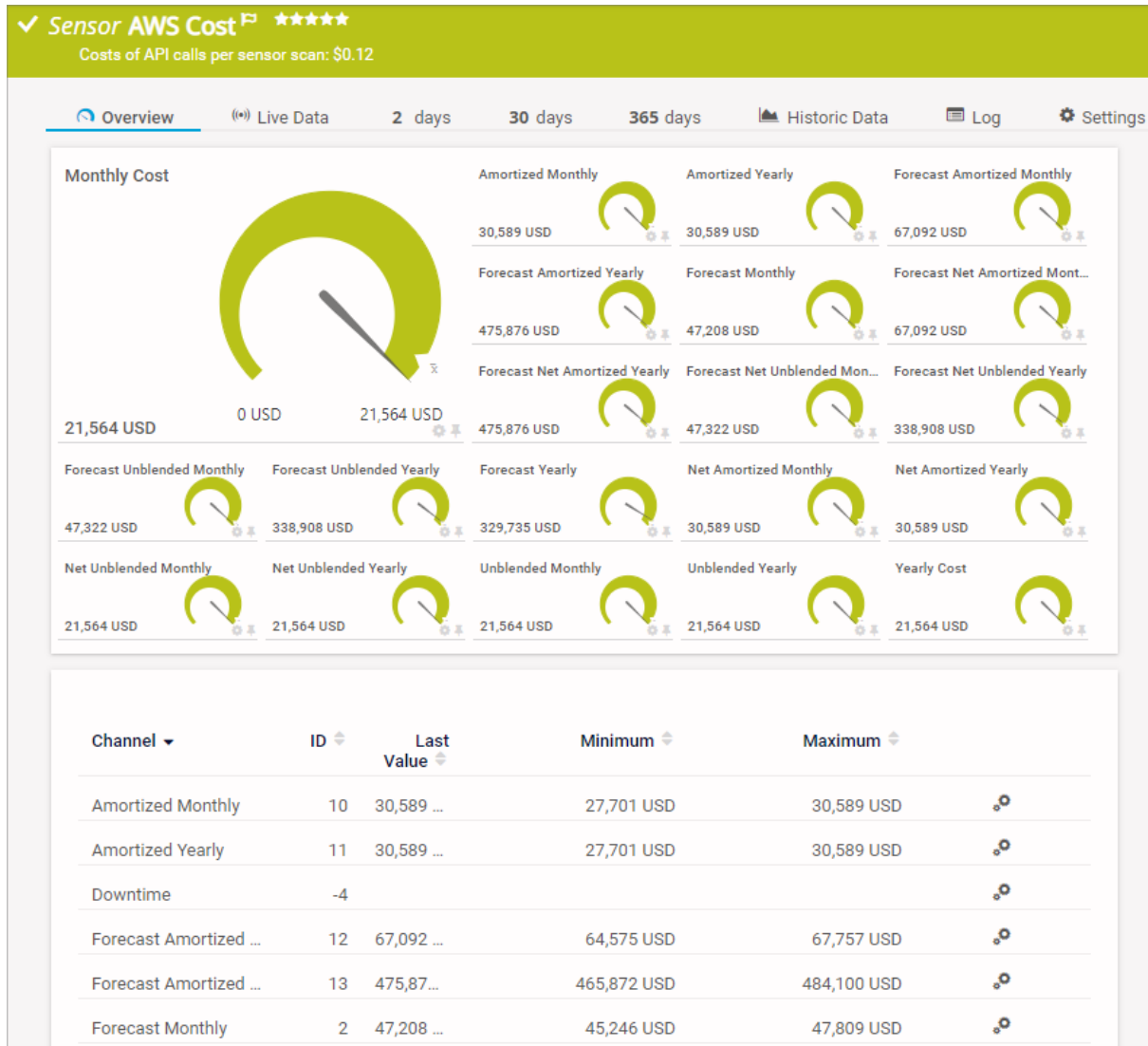
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.11 AWS Cost Sensor

The AWS Cost sensor monitors the cost of an Amazon Web Services (AWS) account by reading its data from the AWS Cost Explorer API.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



AWS Cost Sensor

Sensor in Other Languages

- Dutch: AWS Cost
- French: AWS Cost
- German: AWS Cost
- Japanese: AWS Cost
- Portuguese: AWS Cost
- Russian: AWS Cost

- Simplified Chinese: AWS Cost
- Spanish: AWS Cost

Remarks

- This sensor requires the AWS Cost Explorer to be activated in your AWS account.
- This sensor requires IAM User and Role Access to Billing Information enabled in your AWS account.
- This sensor requires [credentials for AWS](#) [459] in the settings of the parent device or group.
- This sensor requires [permissions](#) [631] for the API key.
- After sensor setup, the first data is available after 24 hours. Forecast data is available after a few days.
- The minimum scanning interval for this sensor is 6 hours.
- Amazon charges you for each API call that the sensor sends to the Amazon servers.
- You can only set up this sensor for one AWS account per PRTG installation.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- See the Knowledge Base: [What settings do I have to define in my AWS account to set up the AWS Cost sensor?](#)
- See the Knowledge Base: [How do I set permissions for the Amazon Web Services \(AWS\) API key to use certain sensors in PRTG?](#)

Detailed Requirements

Requirement	Description
Permissions for the AWS API key	<p>This sensor requires sufficient rights to query data from the AWS API. The AWS API key requires the following permissions:</p> <ul style="list-style-type: none"> ▪ "ce:GetCostAndUsage", ▪ "ce:GetCostForecast", ▪ "ce:GetDimensionValues", ▪ "ce:GetCostAndUsageWithResources", ▪ "ce:GetUsageForecast" <p>■ For more information, see the Knowledge Base: How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?</p>

Add Sensor

The [Add Sensor](#) [361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ aws ▪ cost ▪ awscost

Setting	Description
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

AWS Cost Specific

AWS Cost Specific

Additional Cost Types **i** Disable (default)
 Enable

Additional Forecast Types **i** Disable (default)
 Enable (creates additional fees)

AWS Cost Specific

Setting	Description
Additional Cost Types	PRTG creates two default channels for blended monthly and yearly cost. If you select this option, you can select additional cost types for which PRTG creates additional channels.
Select Additional Cost Types	This setting is only visible if you select Enable for Additional Cost Types above. Select additional cost types: <ul style="list-style-type: none"> ▪ Amortized cost ▪ Net amortized cost ▪ Unblended cost ▪ Net unblended cost i PRTG creates two overview channels (monthly and yearly) for every additional cost type that you select.
Additional Forecast Types	PRTG does not automatically create additional forecast channels. If you select this option, you can select additional forecast types to create additional forecast channels.
Select Additional Forecast Types	This setting is only visible if you select Enable for Additional Cost Types above. Select additional forecast types: <ul style="list-style-type: none"> ▪ Blended cost

Setting	Description
	<ul style="list-style-type: none"> ▪ Amortized cost ▪ Net amortized cost ▪ Unblended cost ▪ Net unblended cost <p>i PRTG creates two overview channels (monthly and yearly) for every additional forecast type that you select. Every forecast type you select creates additional fees. Deselect a forecast type if you no longer want the according channels to create additional fees. You can still see the channels, but they do not receive data anymore.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Debug Options

Debug Options

Result Handling ⓘ


Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval



Click  to interrupt the [inheritance](#)^[142].

ⓘ This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#)^[4187] settings are not available for this sensor.

Scanning Interval

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

 inherit from  Root

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>i For AWS Cost sensors, the minimum scanning interval is 6 hours.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails.

Setting	Description
	<p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None



Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00)



Setting	Description
	<ul style="list-style-type: none"> ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>


Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

 inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#)¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Amortized Monthly	The amortized cost per month
Amortized Yearly	The amortized cost per year
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Forecast Amortized Monthly	The forecast for amortized cost per month
Forecast Amortized Yearly	The forecast for amortized cost per year
Forecast Monthly	The forecast for cost per month
Forecast Net Amortized Monthly	The forecast for net amortized cost per month
Forecast Net Amortized Yearly	The forecast for net amortized cost per year

Channel	Description
Forecast Net Unblended Monthly	The forecast for net unblended cost per month
Forecast Net Unblended Yearly	The forecast for net unblended cost per year
Forecast Unblended Monthly	The forecast for unblended cost per month
Forecast Unblended Yearly	The forecast for unblended cost per year
Forecast Yearly	The forecast for cost per year
Monthly Cost	The monthly cost  This channel is the primary channel by default.
Net Amortized Monthly	The net amortized cost per month
Net Amortized Yearly	The net amortized cost per year
Net Unblended Monthly	The net unblended cost per month
Net Unblended Yearly	The net unblended cost per year
Unblended Monthly	The unblended cost per month
Unblended Yearly	The unblended cost per year
Yearly Cost	The cost per year

More

■ KNOWLEDGE BASE

What settings do I have to define in my AWS account to set up the AWS Cost sensor?

- <https://kb.paessler.com/en/topic/87401>

How do I set permissions for the Amazon Web Services (AWS) API key to use certain sensors in PRTG?





- <https://kb.paessler.com/en/topic/38083>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

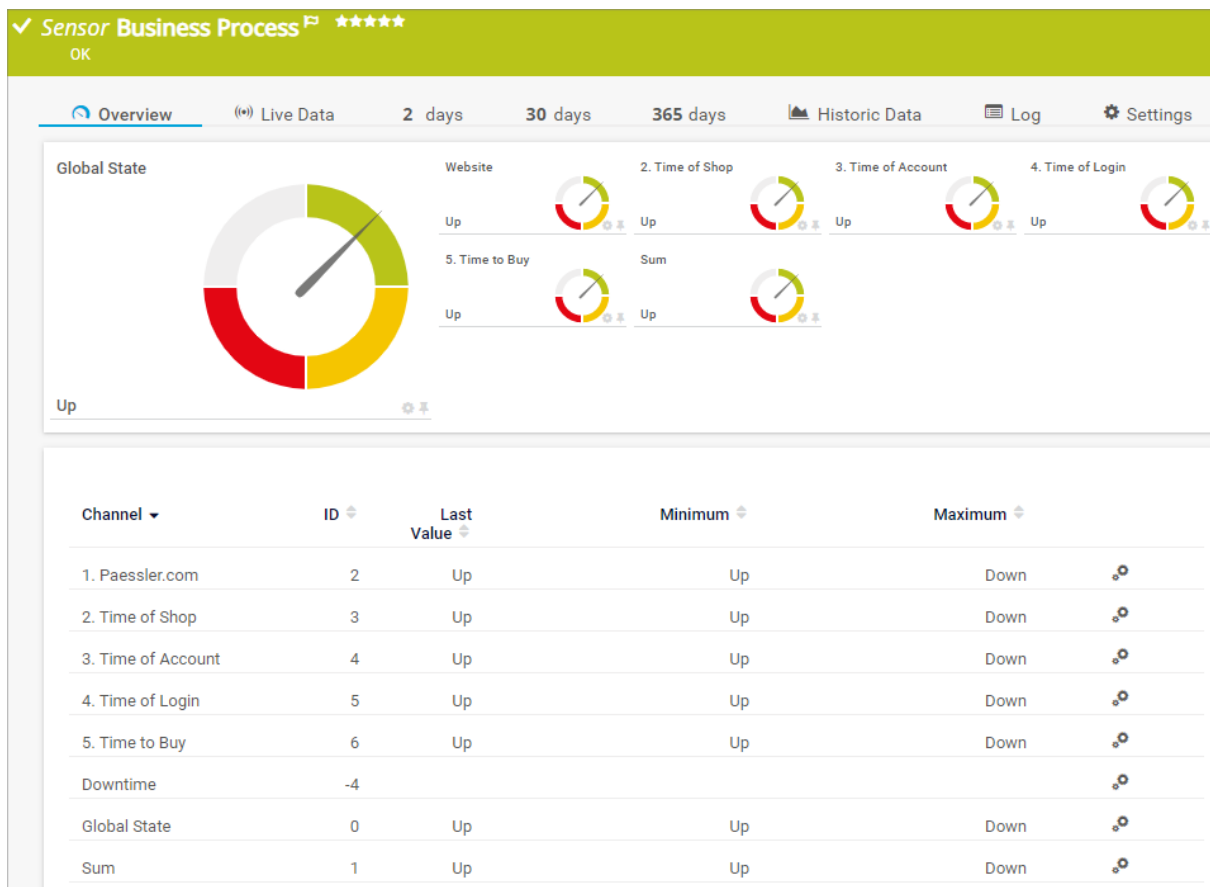
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.12 Business Process Sensor

The Business Process sensor gives you a summarized status of entire business processes while monitoring several process components. This means that you can create a customized sensor with channels based on data from other sensors ("source sensors") that are specific to your network.

i If you want to process values from other sensors and you want to perform calculations with these values, for example, use the [Sensor Factory sensor](#) ²¹⁷⁸ instead.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ⁶⁵⁸.



Business Process Sensor

Sensor in Other Languages

- Dutch: Bedrijfs Proces
- French: Processus métier
- German: Business Process
- Japanese: ビジネスプロセス
- Portuguese: Processo empresarial
- Russian: -
- Simplified Chinese: 业务进程

- Spanish: Proceso de negocio

Remarks

- This sensor does not officially support more than 50 channels. Depending on the data used with this sensor, you might exceed the maximum number of supported channels. In this case, PRTG tries to display all channels. Be aware, however, that you experience limited usability and performance.
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).
- See the Knowledge Base: [How does the Business Process sensor calculate summarized sensor states?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree , as well as in alarms , logs , notifications , reports , maps , libraries , and tickets . ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe .

Setting	Description
	<p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ factorysensor ▪ businessprocesssensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Business Process Specific Settings

Business Process Specific Settings

States and Conditions

Step 1. The sensor maps object states to object conditions. The following object states are mapped to the "up" condition:

Up, Warning, Unusual, Down (Partial), Unknown (Collecting)

The following object states are mapped to the "down" condition:

Down, Unknown (None), Paused, Down (Acknowledged)

See the [PRTG Manual](#) for the reasoning behind this behavior. A probe, group, or device that you add to a channel is in the "up" condition as long as none of its sensors are in the "down" condition.

Step 2. The Business Process sensor compares the percentage of the "up" conditions of the objects in a channel with the thresholds you define. If the percentage of objects in the "up" condition is smaller than indicated by your warning or error threshold, the channel will be in an overall "warning" or "down" status respectively.




Step 3. The Global State channel of the Business Process sensor always shows the "most severe" status that at least one of your channels has.

Channel Name	Error	Threshold %	Warning	Objects	
Channel 1		50	25	<input checked="" type="checkbox"/> Battery: SMP D... ✕	
Channel 2		50	75	<input checked="" type="checkbox"/> SSH Disk Free ✕	
Channel 3		50	75	<input checked="" type="checkbox"/> CPU Load ✕	
Enter Channel Name		50	75		



Business Process Specific Settings

Setting	Description
Channel Name	<p>Enter a meaningful name to identify the channel. To add a new channel to the sensor, click the Enter Channel Name field, enter a name for the channel, and confirm with the Enter or Tab key.</p> <p> It might take several sensor scans until new channel names or changes to channel names become visible.</p>
Error Threshold %	<p>Set a percentage limit to define when the channel displays the Down status. Enter an integer value. The default is 50%.</p> <p> This value depends on how many objects you feed into a Business Process channel.</p> <p>If the percentage of source objects in the "up" condition is less than the error threshold defines, the channel and the Global State channel of the Business Process sensor show the Down status.</p> <p>PRTG maps the following sensor states^[197] to the "up" condition ▲ for a Business Process channel:</p> <ul style="list-style-type: none"> ▪ Up ▪ Warning ▪ Unusual ▪ Down (Partial)













Setting	Description
Warning Threshold %	<p>PRTG maps all other sensor states to the "down" condition ▼ (see Up and Down Conditions^[649]).</p> <p>For example, if you define 4 source sensors for a channel, an error threshold of 50% means that 3 source sensors have to be in the "down" condition to set this channel to the Down status. So, 50% means that more than half of the source sensors must not be in the "up" condition to set the sensor to the Down status.</p> <p>■ For more information, an illustration of the business process mechanisms, and some use cases for the Business Process sensor, see the table below^[649] and the Knowledge Base: How can I use the Business Process sensor?</p> <p>Set a percentage limit to define when the channel displays the Warning status. Enter an integer value. The default is 75%.</p> <p>ⓘ This value depends on how many objects you feed into a Business Process channel.</p> <p>If the percentage of source objects in the "up" condition is less than the threshold defines, the channel and the Global State channel of the Business Process sensor show the Warning status.</p> <p>PRTG maps the following sensor states to the "up" condition ▲ for a Business Process channel:</p> <ul style="list-style-type: none"> ▪ Up ▪ Warning ▪ Unusual ▪ Down (Partial) <p>PRTG maps all other sensor states to the "down" condition ▼ (see Up and Down Conditions^[649]).</p> <p>For example, if you define 4 source sensors for a channel, a warning threshold of 75% means that all 4 source sensors have to be in the "down" condition to set this channel to the Warning status. So, 75% means that more than three out of four of the source sensors must not be in the "up" condition to set the sensor to the Warning status.</p> <p>■ For more information, an illustration of the business process mechanisms, and some use cases for the Business Process sensor, see the table below^[649] and the Knowledge Base: How can I use the Business Process sensor?</p>
Objects	<p>Enter the objects that you want to have in a channel by clicking ⊕. This way, you can select the desired objects from the device tree with the object selector^[251]. You can also start to type the object's ID, name, or a tag. PRTG then suggests the possible objects.</p>

Setting	Description
	<p>You can add sensors, devices, groups, and probes to a channel. Each object you add is weighted equally, no matter if it is a single sensor or a device with many sensors. To give more weight to a specific object, add it several times. For example, add the object twice to give double weight to it, add it three times to give it triple weight.</p> <p> A probe, group, or device is in the "up" condition  as long as it does not contain any sensors in the "down" condition .</p>

Up and Down Conditions

The Business Process "up"  and "down"  conditions are different from the normal Up and Down sensor states. This is necessary for the Business Process sensor to calculate summarized states and to show a calculated result for an entire business process. This table illustrates which sensor status leads to which Business Process condition.

The Relation Between Object States And Business Process Conditions

Channel Object Status	Business Process Condition	Reason: Why does a specific sensor status correspond to a specific Business Process condition?
 Up	Up 	The monitored object works, so everything is fine.
 Warning	Up 	The sensor might show a warning, but the monitored object still works.
 Down (Partial)	Up 	This status is available in a cluster and is displayed if at least one cluster node reports the sensor as in the Up status and at least one cluster node reports it as in the Down status. With at least one Up report, the monitored object is supposed to be working and meets the Business Process "up" condition.
 Unusual	Up 	The sensor might show unusual values, but the monitored object works.
 Collecting	Up 	The sensor is still waiting for more monitoring data to definitely decide on the sensor status, but so far the monitored object works. This PRTG internal status is visualized as the Unknown status in the PRTG web interface.
 Down	Down 	The monitored object does not work.

Channel Object Status	Business Process Condition	Reason: Why does a specific sensor status correspond to a specific Business Process condition?
Unknown	Down	The sensor does not know if the monitored object works, for example because it has not yet received any data or because it has not received any data for a certain amount of time.
None	Down	The sensor has not yet received any monitoring data from the monitored object. This PRTG internal status is visualized as the Unknown status in the PRTG web interface.
Paused	Down	The monitored object does not work and monitoring has been paused, for example actively by the user, by inheritance, or by schedules. It might be convenient to exclude regularly or frequently paused objects from your business process monitoring, so you do not give more weight than necessary to a Business Process "down" condition because of issues you already know about.
Down (Acknowledged)	Down	The monitored object does not work and someone already knows.

i If you encounter issues with your Business Process sensor and want to [contact the Paessler support team](#), send us your **exact configuration**. Click in the upper-right corner of the Business Process Specific Settings table to copy your configuration:

Business Process Specific Settings

States and Conditions *Step 1. The sensor maps object states to object conditions. The following object states are mapped to the "up" condition:*
Up, Warning, Unusual, Down (Partial), Unknown (Collecting)

The following object states are mapped to the "down" condition:
Down, Unknown (None), Paused, Down (Acknowledged)

See the PRTG Manual for the reasoning behind this behavior. A probe, group, or device that you add to a channel is in the "up" condition as long as none of its sensors are in the "down" condition.

Step 2. The Business Process sensor compares the percentage of the "up" conditions of the objects in a channel with the thresholds you define. If the percentage of objects in the "up" condition is smaller than indicated by your warning or error threshold, the channel will be in an overall "warning" or "down" status respectively.

Step 3. The Global State channel of the Business Process sensor always shows the "most severe" status that at least one of your channels has.

Channel Name	Error	Threshold %	Warning	Objects	
Sum		50	75	<input checked="" type="checkbox"/> Ping <input type="checkbox"/>	
Website		50	75	<input checked="" type="checkbox"/> Ping <input type="checkbox"/>	

The Business Process Sensor Configuration Clipboard

A window opens that contains your configuration. Copy the highlighted text and paste it into the [support form](#)^[4266] to send it to the Paessler support team.


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[3977]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>



Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval	
 inherit from  Root	Scanning Interval ⓘ 60 seconds
	If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

-  Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
[Channel]	<p>The summarized status of the objects contained in each channel according to the individually defined error and warning thresholds</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: Up ▪ Warning status: Warning ▪ Down status: Down ▪ Unknown status: Inactive
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p> <p> The Business Process sensor never shows values in the Downtime channel because they cannot be calculated for this sensor.</p>
Global State	<p>The overall and summarized status of all channels in the Global State channel</p> <ul style="list-style-type: none"> ▪ Up status: Up

Channel	Description
	<ul style="list-style-type: none">▪ Warning status: Warning▪ Down status: Down▪ Unknown status: Inactive <p> This channel is the primary channel by default.</p>

More

KNOWLEDGE BASE

How does the Business Process sensor calculate summarized sensor states?

- <https://kb.paessler.com/en/topic/66647>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How can I use the Business Process sensor?





- <https://kb.paessler.com/en/topic/67109>

How can I avoid numerous notifications for branch offices?

- <https://kb.paessler.com/en/topic/86094>

Sensor Settings Overview

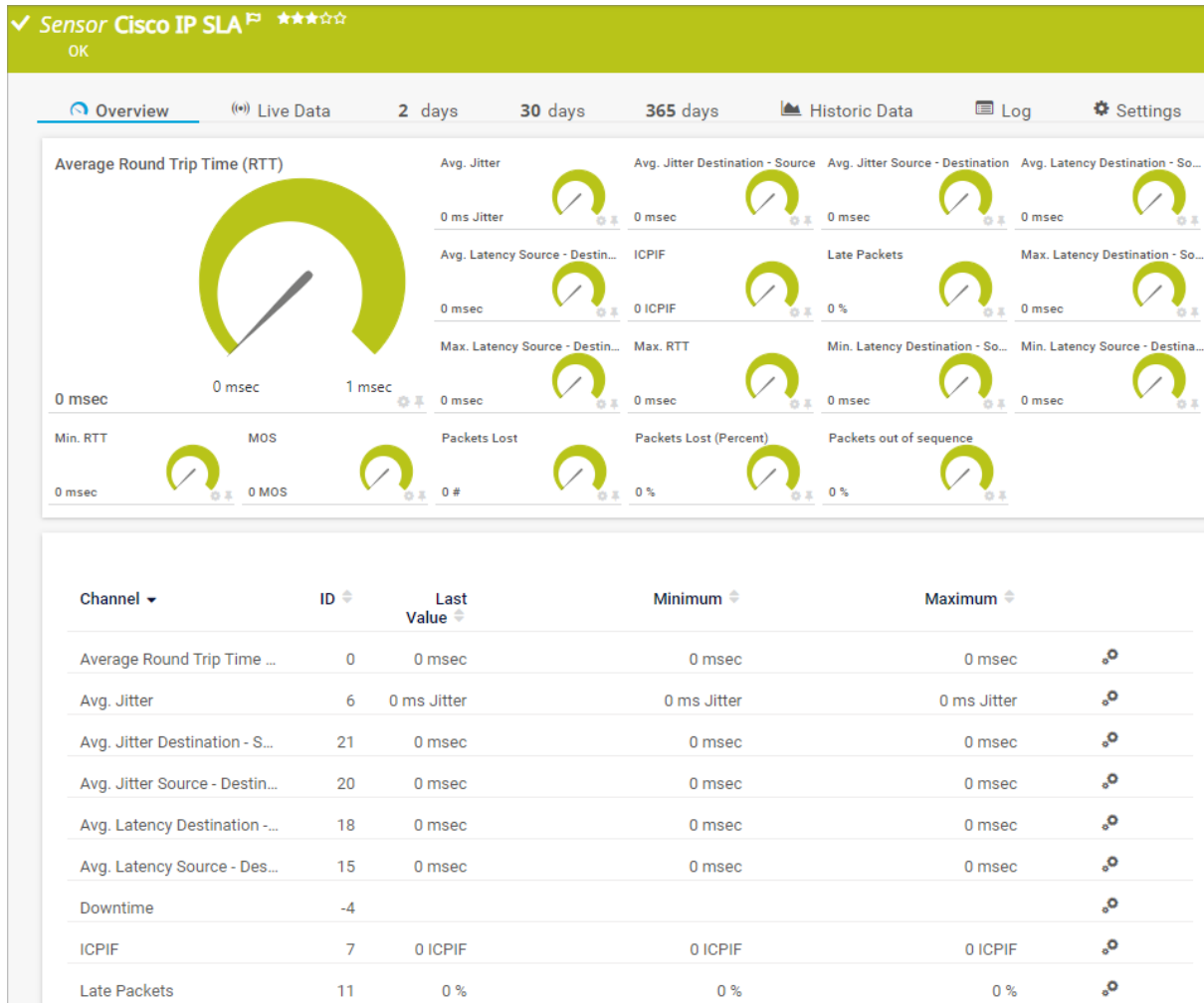
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.13 Cisco IP SLA Sensor

The Cisco IP SLA sensor monitors Voice over IP (VoIP) network parameters using IP service level agreements (SLA) from Cisco via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Cisco IP SLA Sensor

Sensor in Other Languages

- Dutch: Cisco IP SLA
- French: IP SLA Cisco
- German: Cisco IP SLA
- Japanese: Cisco IP SLA
- Portuguese: Cisco IP SLA
- Russian: Cisco IP SLA
- Simplified Chinese: Cisco IP SLA
- Spanish: Cisco IP SLA

Remarks

- In certain cases, the object identifiers (OID) that the sensor uses are not available on the target device. The sensor shows the following error message: **No such object (SNMP error # 222)**. If you encounter this issue, open the SNMP Compatibility Options [setting](#)^[463] of the parent device or group and set the Request Mode to Use single get.
- If there is a very large number of IP SLAs available during sensor creation, we recommend that you limit the result set by using the Start Interface Index and End Interface Index options in the SNMP Compatibility Options setting of the parent device or group.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)^[445].

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

IP SLA Specific

Setting	Description
IP SLAs	<p>Select the IP SLAs that you want to monitor. PRTG creates one sensor for each SLA that you select.</p> <p>The list options depend on the configuration of the target device that you query. If a type is missing, check the configuration of the target device. The sensor can support the following operations with the specified type IDs:</p> <ul style="list-style-type: none"> ▪ echo (1) ▪ pathEcho (2) ▪ fileIO (3) ▪ script (4) ▪ udpEcho (5) ▪ tcpConnect (6) ▪ http (7) ▪ dns (8) ▪ jitter (9) ▪ dlsW (10)

Setting	Description
	<ul style="list-style-type: none"> ▪ dhcp (11) ▪ ftp (12) ▪ icmp-jitter (16) ▪ path-jitter (23) <p>i The numbers are the IDs of the SLA types as reported by the target device. PRTG translates them into the corresponding strings. These IDs are independent of the IDs that you see in the first column of the list. If the target device returns other values, the sensor shows an error message that says that it cannot find the type.</p> <p>i Packet Loss values are summarized but have no explicit channel for Source-Destination or Destination-Source values.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ X +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree ^[183], as well as in alarms ^[228], logs ^[237], notifications ^[4031], reports ^[4069], maps ^[4096], libraries ^[4047], and tickets ^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags ^[145] that the sensor inherits ^[145] from its parent device ^[140] , parent group ^[139] , and parent probe ^[139] . <p>i This setting is for your information only. You cannot change it.</p>
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145] . <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ ipslasensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

IP SLA Specific

IP SLA Specific

ID **i**

Type **i** *path-jitter*

Name (Tag) **i**

Owner **i** *(Not defined)*

Frequency **i** *60*

IP SLA Specific

Setting	Description
ID	Shows the ID of the SLA that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Type	Shows the type of the SLA that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Name (Tag)	Shows the name of the SLA that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Owner	Shows the owner of the SLA that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Frequency	Shows the frequency of the SLA that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display


Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Avg. Jitter	The average jitter in milliseconds (msec)
Avg. Jitter Destination - Source	The average jitter between destination and source in msec

Channel	Description
Avg. Jitter Source - Destination	The average jitter between source and destination in msec
Avg. Latency Destination - Source	The average latency between destination and source in msec
Avg. Latency Source - Destination	The average latency between source and destination in msec
Average Round Trip Time (RTT)	The average round-trip time (RTT) in msec i This channel is the primary channel by default.
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
ICPIF	The Impairment Calculated Planning Impairment Factor (ICPIF)
Late Packets	The number of late packets
Max. Latency Destination - Source	The maximum latency between destination and source in msec
Max. Latency Source - Destination	The maximum latency between source and destination in msec
Max. RTT	The maximum RTT in msec
Min. Latency Destination - Source	The minimum latency between destination and source in msec
Min. Latency Source - Destination	The minimum latency between source and destination in msec
Min. RTT	The minimum RTT in msec
MOS	The mean opinion score (MOS)
Packets Lost	The number of lost packets
Packets Lost (Percent)	The number of lost packets in percent
Packets Out Of Sequence	The number of out-of-sequence packets

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.14 Citrix XenServer Host Sensor

The Citrix XenServer Host sensor monitors a Xen host server via HTTP.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) [679].



Citrix XenServer Host Sensor

Sensor in Other Languages



- Dutch: Citrix XenServer Host
- French: Hôte Citrix XenServer
- German: Citrix XenServer Host
- Japanese: Citrix XenServer ホスト
- Portuguese: Citrix XenServer Host
- Russian: Citrix XenServer
- Simplified Chinese: Citrix XenServer 主机

- Spanish: Citrix XenServer Host

Remarks


- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- The parent device must be a Citrix XenServer version 5.0 or later.
- The parent device must represent one host server of your XenServer pool.
- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor requires [credentials for VMware/XenServer](#) in the settings of the parent device.
- This sensor does not fully support Transport Layer Security (TLS) 1.2 connections and cannot be added to XenServers with the security protocol setting "TLS 1.2 only".

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Monitoring a XenServer Pool

In a XenServer pool, there is one "pool master" that manages the pool. Incoming queries on any host are automatically forwarded to the pool master. If you want to monitor your VMs or host servers, create respective sensors on a device that represents **one** host server of your pool. Internal processes make sure that monitoring takes place and continues independently from the physical host.

-  In the device tree, the sensors for VMs always remain on the host you originally created them on, also if they are currently running on a different host.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

-  The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Host Settings

Setting	Description
Hosts	<p>Select the XenServer hosts that you want to monitor, including hosts that do not run. PRTG creates one sensor for each host that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus sign, and a 'Priority' field with five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ xenhostsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Host Settings

Host Settings

UUID **i**

Name **i**

Host Settings

Setting	Description
UUID	<p>Shows the universally unique identifier (UUID) of the host that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. We strongly recommend that you only change it if the Paessler support team explicitly asks you to do so. Wrong usage can result in incorrect monitoring data.</p>
Name	<p>Shows the name of the host that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options

Result Handling ⓘ

Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ

Downtime


Graph Type ⓘ

Show channels independently (default)


Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
Stack Unit	<p>Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic.</p> <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p> <p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None ▼

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU [Value] Usage	<p>The CPU usage in percent</p> <p> This channel is the primary channel by default.</p>

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Load Average	The load average amount
VMs Running	The number of running virtual machines (VM)
Total Memory Free	The total memory available in bytes
Total Memory Used	The total memory used in bytes

More

KNOWLEDGE BASE

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

Does PRTG impair my Citrix environment?

- <https://kb.paessler.com/en/topic/61880>

Sensor Settings Overview

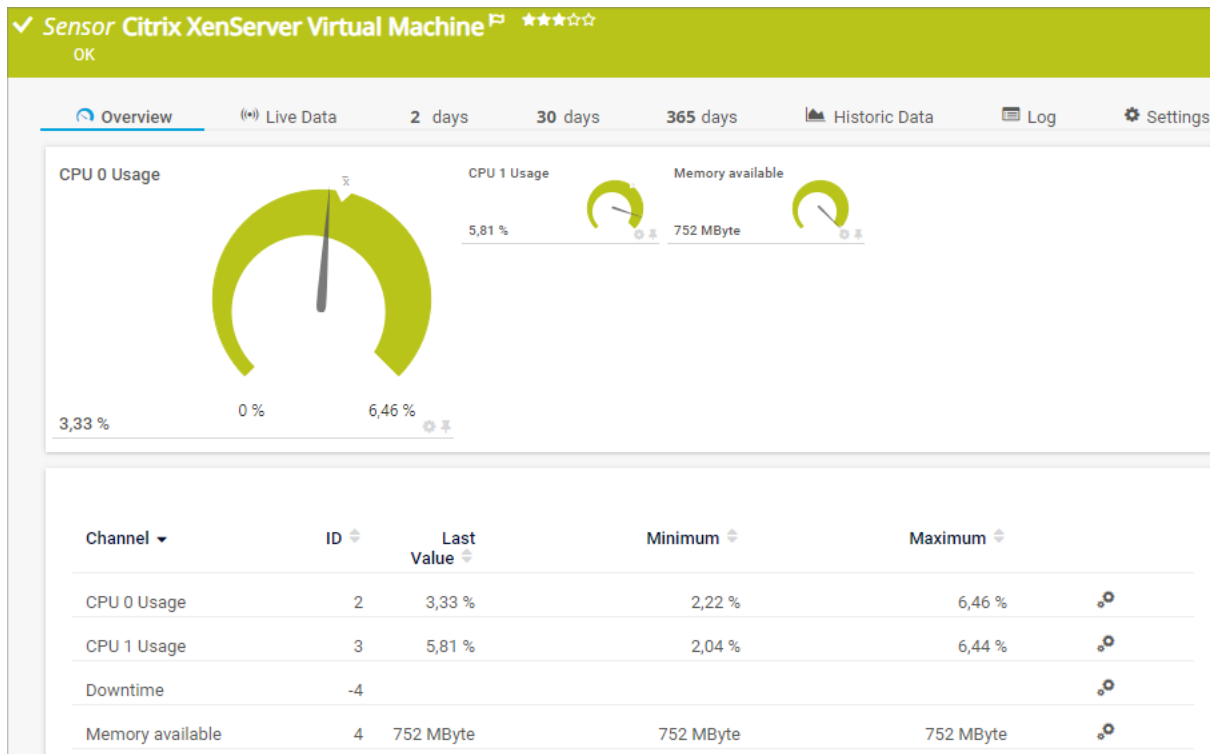
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.15 Citrix XenServer Virtual Machine Sensor

The Citrix XenServer Virtual Machine sensor monitors a virtual machine (VM) on a Xen server via HTTP.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Citrix XenServer Virtual Machine Sensor

Sensor in Other Languages



- Dutch: Citrix XenServer Virtuele Machine
- French: Machine virtuelle Citrix XenServer
- German: Citrix XenServer Virtuelle Maschine
- Japanese: Citrix XenServer 仮想マシン
- Portuguese: Citrix XenServer Máquina Virtual
- Russian: Citrix XenServer
- Simplified Chinese: Citrix XenServer 虚拟机
- Spanish: Máquina virtual Citrix XenServer

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- The parent device must be a Citrix XenServer version 5.0 or later.
- The parent device must represent one host server of your XenServer pool.


- This sensor requires [credentials for VMware/XenServer](#) in the settings of the parent device.
- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor does not fully support Transport Layer Security (TLS) 1.2 connections and cannot be added to XenServers with the security protocol setting "TLS 1.2 only".

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>



Monitoring a XenServer Pool

In a XenServer pool, there is one "pool master" that manages the pool. Incoming queries on any host are automatically forwarded to the pool master. If you want to monitor your VMs or host servers, create respective sensors on a device that represents [one](#) host server of your pool. Internal processes make sure that monitoring takes place and continues independently from the physical host.

-  In the device tree, the sensors for VMs always remain on the host you originally created them on, also if they are currently running on a different host.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

-  PRTG requests a full list of all VMs that are configured on the Citrix XenServer. Therefore, it may take a few seconds before the dialog loads.
-  The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Virtual Machine Settings

Setting	Description
Virtual Machines	Select the VMs that you want to monitor, including VMs that do not run. PRTG creates one sensor for each VM that you select.

Setting	Description
	<p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a title 'Basic Sensor Settings' in blue. Below it are three settings: 'Sensor Name' with an information icon and the value 'Example Name'; 'Tags' with an information icon and a tag 'exampletag' that can be removed (X) or added (+); and 'Priority' with an information icon and a star rating of 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[4031], reports^[4069], maps^[4096], libraries^[4047], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ xenhostsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Virtual Machine Settings

Virtual Machine Settings

UUID **i**

Name **i**

Virtual Machine Settings

Setting	Description
UUID	<p>Shows the universally unique identifier (UUID) of the VM that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. We strongly recommend that you only change it if the Paessler support team explicitly asks you to do so. Wrong usage can result in incorrect monitoring data.</p>
Name	<p>Shows the name of the VM that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options

Result Handling **i** Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[3977]).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU [Value] Usage	<p>The CPU usage in percent</p> <p> This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>

Channel	Description
Memory Available	The available memory in bytes
Memory Used	The used memory in bytes
VM Balloon Driver Target	The balloon driver target size in bytes

More

KNOWLEDGE BASE

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

Does PRTG impair my Citrix environment?

- <https://kb.paessler.com/en/topic/61880>

Sensor Settings Overview

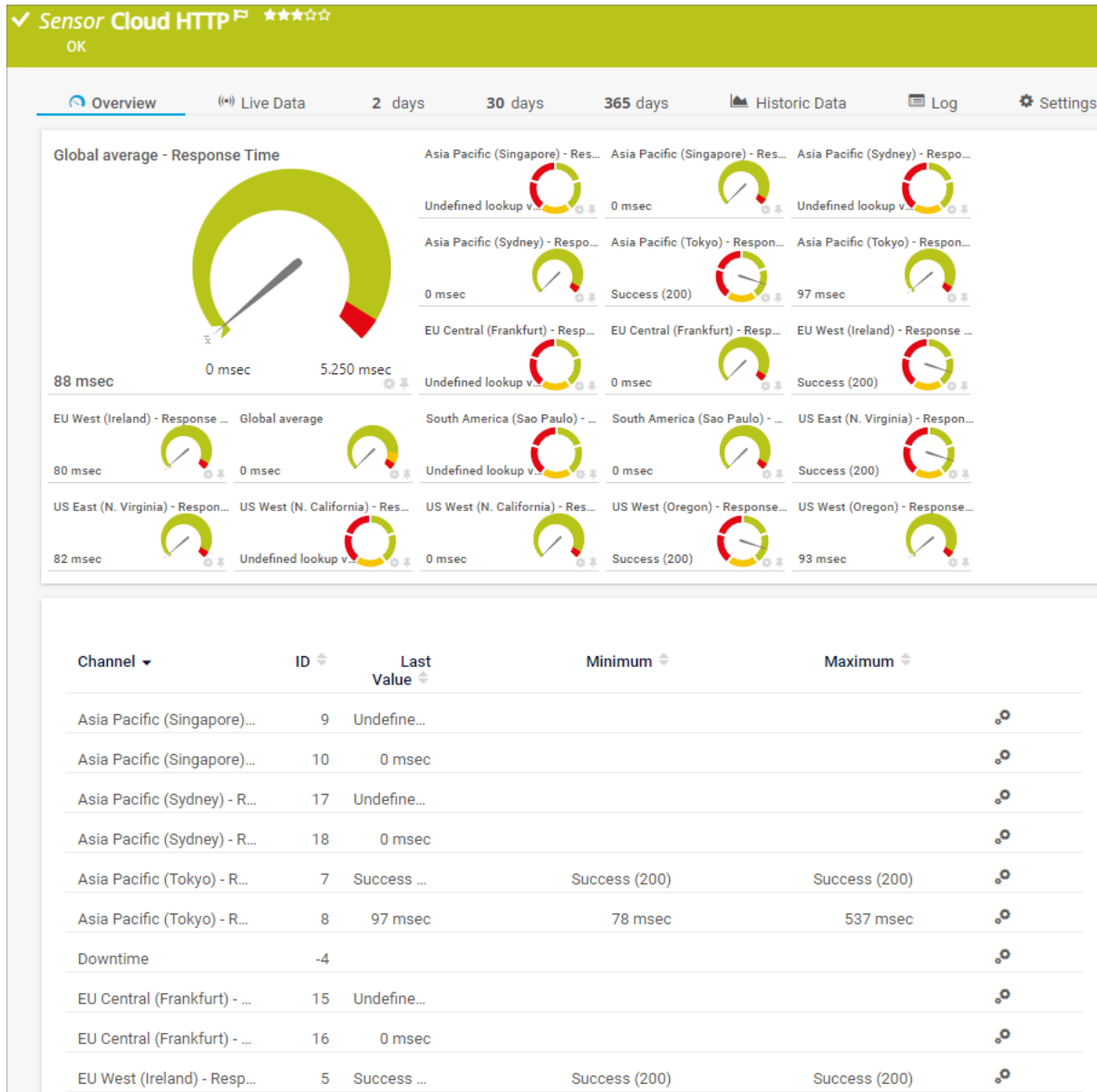
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.16 Cloud HTTP Sensor

The Cloud HTTP sensor monitors the loading time of a web server via HTTP from different locations worldwide via the PRTG Cloud. The locations are distributed among five continents around the globe.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Cloud HTTP Sensor

Sensor in Other Languages

- Dutch: Cloud HTTP
- French: Cloud HTTP
- German: Cloud HTTP
- Japanese: クラウド HTTP

- Portuguese: Cloud HTTP
- Russian: HTTP
- Simplified Chinese: 云 HTTP
- Spanish: HTTP de nube

Remarks

- The probe system must have access to the internet and must be able to reach <https://api.prtgcloud.com:443> to communicate with the PRTG Cloud.
- The address you define in the [settings of the parent device](#)^[447] must be reachable over the internet. You cannot use this sensor to monitor localhost (127.0.0.1) or other target devices that are only reachable within your private network.
- This sensor inherits [proxy settings for HTTP sensors](#)^[468] from the parent device.
- This sensor has predefined limits for several metrics. You can individually change these limits in the channel settings. For detailed information about channel limits, see section [Channel Settings](#)^[3977].
- This sensor supports smart URL replacement.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)^[4485].
- In rare cases, this sensor may result in false timeouts and show the error message [The returned JSON does not match the expected structure \(Invalid JSON.\). \(code: PE231\)](#). In this case, set the If a Sensor Query Fails option to up to five scanning intervals to not receive false alerts.
- See the Knowledge Base: [Are there any limits for using Cloud Ping and Cloud HTTP sensors?](#)
- See the Knowledge Base: [What is the PRTG Cloud Bot?](#)

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains the following fields and controls:

- Sensor Name**: A text input field containing "Example Name".
- Tags**: A text input field containing "exampletag" with a blue 'x' icon to the right and a plus icon to the left of the input area.
- Priority**: A field showing four stars (★★★★) out of five.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ httpsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HTTP Settings

HTTP Settings

URL ⓘ

Request Method ⓘ

GET

POST

HEAD

Timeout (Sec.) ⓘ

HTTP Settings

Setting	Description
URL	<p>Enter the URL that the sensor connects to. If you enter an absolute URL, the sensor uses this address independently of the IP Address/DNS Name setting of the parent device.</p> <p>ⓘ The URL must be valid and URL encoded.</p> <p>ⓘ You can enter a URL that leads to a web page, for example, to measure the page source code's loading time, or you can enter the URL of an image or other page asset to measure this element's availability and loading time.</p> <p>■ PRTG uses a smart URL replacement with which you can use the parent device's IP address or Domain Name System (DNS) name setting as part of the URL. For more information, see section Smart URL Replacement^[70].</p>
Request Method	<p>Select an HTTP request method to determine how the sensor requests the URL:</p> <ul style="list-style-type: none"> ▪ GET (default): Directly request the web page. We recommend that you use this setting for a simple check of a web page. ▪ POST: Send post form data to the URL. ▪ HEAD: Only request the HTTP header from the server without the actual web page. <ul style="list-style-type: none"> ⓘ This setting saves bandwidth because it transfers less data. However, we do not recommend this setting because the measured request time is not the request time that the users experience and you might not be notified of slow results or timeouts.
Postdata	<p>This option is only visible if you select POST as Request Method above. Enter the data part for the POST request.</p> <p>ⓘ No Extensible Markup Language (XML) is allowed here.</p>

Setting	Description
	<p>i The only content type that sensor supports is application/x-www-form-urlencoded.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the server request. If the reply takes longer than this value, PRTG cancels the request and shows an error message. The maximum timeout value is 5 seconds.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings





By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click  to interrupt the inheritance.

i This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#) settings are not available for this sensor.

Scanning Interval	
 inherit from  Root	Scanning Interval  60 seconds
	If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>i The minimum scanning interval of this sensor is 10 minutes.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Smart URL Replacement

Instead of entering a complete address in the URL field of an HTTP sensor, you can only enter the protocol followed by a colon and three forward slashes (this means that you can enter either <http://> or <https://>, or even a simple forward slash / as the equivalent for <http://>). PRTG automatically fills in the parent device's IP address or DNS name in front of the third forward slash.

Whether this results in a valid URL or not depends on the IP address or Domain Name System (DNS) name of the parent device. In combination with cloning devices, you can use smart URL replacement to create many similar devices.

For example, if you create a device with the DNS name www.mycompany.com and you add an HTTP sensor to it, you can provide values in the following ways:

- If you enter <https://> in the URL field, PRTG automatically creates the URL <https://www.mycompany.com/>
- If you enter [/help](http://www.mycompany.com/help) in the URL field, PRTG automatically creates and monitor the URL <http://www.mycompany.com/help>


- It is also possible to provide a port number in the URL field. It is taken over by the device's DNS name and is internally added, for example, <http://:8080/>

i Smart URL replacement does not work for sensors that run on the probe device.

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Asia Pacific (Singapore) - Response Code	<p>The response code of the target server at the location</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Information, Success ▪ Warning status: Redirection ▪ Down status: Client Error, Server Error
Asia Pacific (Singapore) - Response Time	The response time of the target server at the location in milliseconds (msec)
Asia Pacific (Sydney) - Response Code	<p>The response code of the target server at the location</p> <ul style="list-style-type: none"> ▪ Up status: Information, Success ▪ Warning status: Redirection ▪ Down status: Client Error, Server Error
Asia Pacific (Sydney) - Response Time	The response time of the target server at the location in msec
Asia Pacific (Tokyo) - Response Code	<p>The response code of the target server at the location</p> <ul style="list-style-type: none"> ▪ Up status: Information, Success ▪ Warning status: Redirection ▪ Down status: Client Error, Server Error
Asia Pacific (Tokyo) - Response Time	The response time of the target server at the location in msec
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
EU Central (Frankfurt) - Response Code	<p>The response code of the target server at the location</p> <ul style="list-style-type: none"> ▪ Up status: Information, Success ▪ Warning status: Redirection

Channel	Description
	<ul style="list-style-type: none"> ▪ Down status: Client Error, Server Error
EU Central (Frankfurt) - Response Time	The response time of the target server at the location in msec
EU West (Ireland) - Response Code	<p>The response code of the target server at the location</p> <ul style="list-style-type: none"> ▪ Up status: Information, Success ▪ Warning status: Redirection ▪ Down status: Client Error, Server Error
EU West (Ireland) - Response Time	The response time of the target server at the location in msec
Global Average - Response Time	<p>The global average response time in msec</p> <p> This channel is the primary channel by default.</p>
South America (São Paulo) - Response Code	<p>The response code of the target server at the location</p> <ul style="list-style-type: none"> ▪ Up status: Information, Success ▪ Warning status: Redirection ▪ Down status: Client Error, Server Error
South America (São Paulo) - Response Time	The response time of the target server at the location in msec
US East (Northern Virginia) - Response Code	<p>The response code of the target server at the location</p> <ul style="list-style-type: none"> ▪ Up status: Information, Success ▪ Warning status: Redirection ▪ Down status: Client Error, Server Error
US East (Northern Virginia) - Response Time	The response time of the target server at the location in msec
US West (Northern California) - Response Code	<p>The response code of the target server at the location</p> <ul style="list-style-type: none"> ▪ Up status: Information, Success ▪ Warning status: Redirection ▪ Down status: Client Error, Server Error
US West (Northern California) - Response Time	The response time of the target server at the location in msec

Channel	Description
US West (Oregon) - Response Code	<p>The response code of the target server at the location</p> <ul style="list-style-type: none"> ▪ Up status: Information, Success ▪ Warning status: Redirection ▪ Down status: Client Error, Server Error
US West (Oregon) - Response Time	<p>The response time of the target server at the location in msec</p>

More

■ KNOWLEDGE BASE

Are there any limits for using Cloud Ping and Cloud HTTP sensors?

- <https://kb.paessler.com/en/topic/63590>

What is the PRTG Cloud Bot?





- <https://kb.paessler.com/en/topic/65719>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

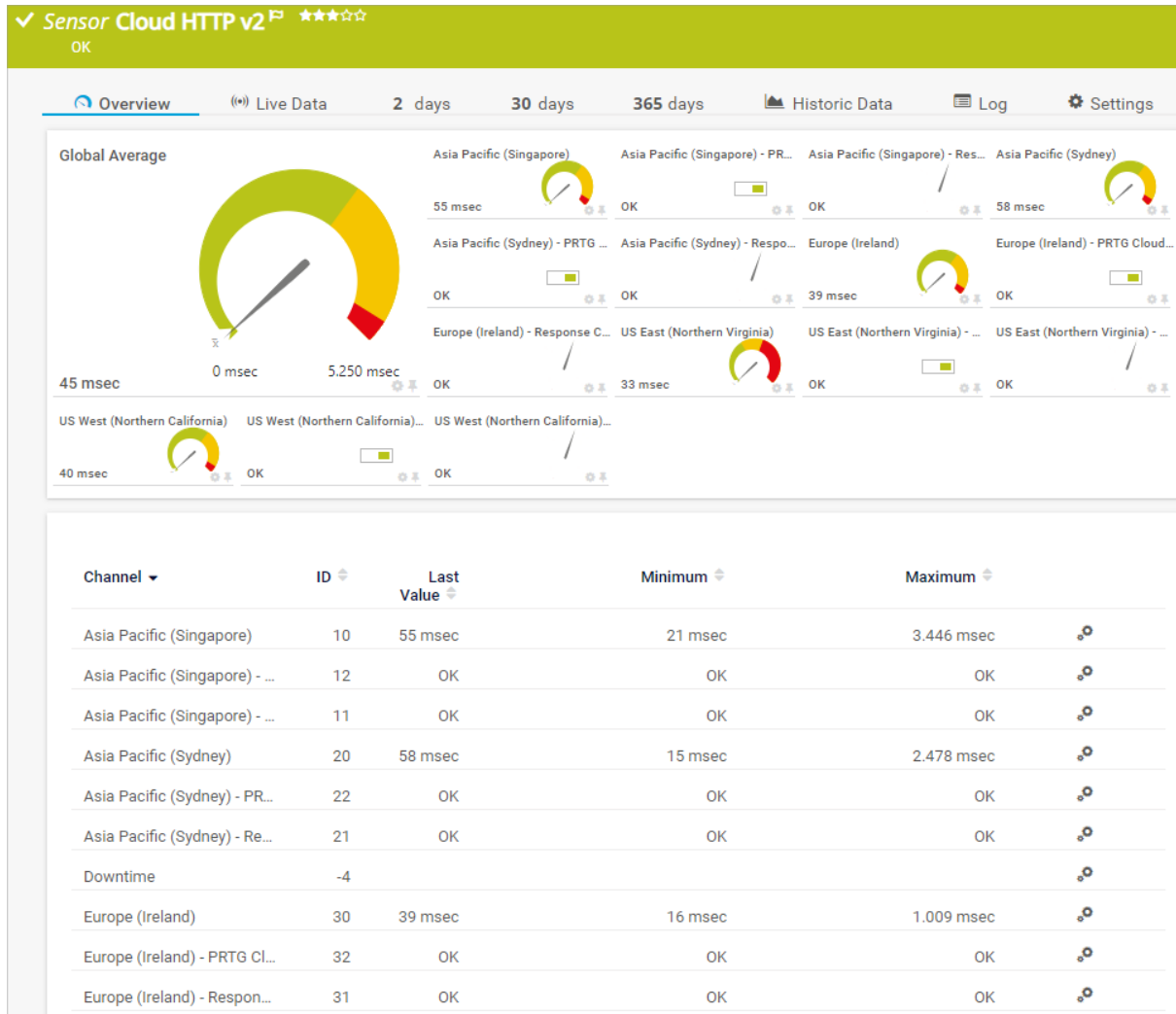
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.17 Cloud HTTP v2 Sensor

The Cloud HTTP v2 sensor monitors the loading time of a web server via HTTP from different locations worldwide via the PRTG Cloud. The locations are distributed among four continents around the globe.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Cloud HTTP v2 Sensor

Sensor in Other Languages

- Dutch: Cloud HTTP v2
- French: Cloud HTTP v2
- German: Cloud HTTP v2
- Japanese: Cloud HTTP v2
- Portuguese: Cloud HTTP v2
- Russian: Cloud HTTP v2
- Simplified Chinese: Cloud HTTP v2

- Spanish: Cloud HTTP v2

Remarks

- The probe system must have access to the internet and must be able to reach <https://api.prtgcloud.com:443> to communicate with the PRTG Cloud.
- The address you define in the [settings of the parent device](#) must be reachable over the internet. You cannot use this sensor to monitor localhost (127.0.0.1) or other target devices that are only reachable within your private network.
- This sensor inherits [proxy settings for HTTP sensors](#) from the parent device.
- This sensor supports smart URL replacement.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).
- This sensor has predefined limits for several metrics. You can individually change these limits in the channel settings. For detailed information about channel limits, see section [Channel Settings](#).
- See the Knowledge Base: [What is the PRTG Cloud Bot?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A list of tags with "exampletag" selected. There are "X" and "+" icons next to the tag.
- Priority:** A star rating system showing 5 stars, with the first three stars filled.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree , as well as in alarms , logs , notifications , reports , maps , libraries , and tickets .

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ cloud ▪ cloudhttpsensor ▪ http
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Cloud HTTP Specific

Cloud HTTP Specific

URL ⓘ Inherit (default)
 Custom

Request Method ⓘ GET (default)
 POST
 HEAD

Region ⓘ Asia Pacific (Singapore)
 Asia Pacific (Sydney)
 Europe (Ireland)
 US East (Northern Virginia)
 US West (Northern California)

Timeout (Sec.) ⓘ

Cloud HTTP Settings

Setting	Description
URL	<p>Select if you want to inherit the URL from the parent device or if you want to enter a custom URL:</p> <ul style="list-style-type: none"> ▪ Inherit (default) ▪ Custom
Custom URL	<p>This option is only visible if you select Custom above. Enter a custom URL that the sensor connects to.</p> <p>ⓘ The URL must be valid and URL encoded.</p> <p>ⓘ You can enter a URL that leads to a web page, for example, to measure the page source code's loading time, or you can enter the URL of an image or other page asset to measure this element's availability and loading time.</p> <p>■ PRTG uses a smart URL replacement with which you can use the parent device's IP address or Domain Name System (DNS) name setting as part of the URL. For more information, see section Smart URL Replacement ^[716].</p>

Setting	Description
Request Method	<p>Select an HTTP request method to determine how the sensor requests the URL:</p> <ul style="list-style-type: none"> ▪ GET (default): Directly request the web page. We recommend that you use this setting for a simple check of a web page. ▪ POST: Send post form data to the URL. ▪ HEAD: Only request the HTTP header from the server without the actual web page. <ul style="list-style-type: none"> ⓘ This setting saves bandwidth because it transfers less data. However, we do not recommend this setting because the measured request time is not the request time that the users experience and you might not be notified of slow results or timeouts.
Postdata	<p>This option is only visible if you select POST as Request Method above. Enter the data part for the POST request.</p>
Region	<p>Select the regions from which you want to check the service:</p> <ul style="list-style-type: none"> ▪ Asia Pacific (Singapore) ▪ Asia Pacific (Sydney) ▪ Europe (Ireland) ▪ US East (Northern Virginia) ▪ US West (Northern California) <p>ⓘ PRTG creates two channels for every region that you select.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the Ping. If the reply takes longer than this value, PRTG cancels the request and shows an error message. Enter an integer value. You can enter a value between 1 and 30 seconds.</p>


Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Debug Options

Debug Options


Result Handling **i**

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click  to interrupt the inheritance.


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules 4170.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from Root

Channel Unit Types ⁱ

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⁱ Custom channel types are only available on sensor level.</p>

Smart URL Replacement

Instead of entering a complete address in the URL field of an HTTP sensor, you can only enter the protocol followed by a colon and three forward slashes (this means that you can enter either <http://> or <https://>, or even a simple forward slash / as the equivalent for <http://>). PRTG automatically fills in the parent device's IP address or DNS name in front of the third forward slash.

Whether this results in a valid URL or not depends on the IP address or Domain Name System (DNS) name of the parent device. In combination with cloning devices, you can use smart URL replacement to create many similar devices.


For example, if you create a device with the DNS name www.mycompany.com and you add an HTTP sensor to it, you can provide values in the following ways:

- If you enter <https://> in the URL field, PRTG automatically creates the URL <https://www.mycompany.com/>
 - If you enter [/help](#) in the URL field, PRTG automatically creates and monitor the URL <http://www.mycompany.com/help>
 - It is also possible to provide a port number in the URL field. It is taken over by the device's DNS name and is internally added, for example, <http://:8080/>
- i** Smart URL replacement does not work for sensors that run on the probe device.

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Asia Pacific (Singapore)	The response time of the target server at the location in milliseconds (msec)
Asia Pacific (Singapore) - HTTP Response Code	The response code of the target server at the location
Asia Pacific (Singapore) - PRTG Cloud Response	If the query of the PRTG Cloud was successful or not: <ul style="list-style-type: none"> ▪ Up status: OK ▪ Down status: Failed
Asia Pacific (Sydney)	The response time of the target server at the location in msec
Asia Pacific (Sydney) - HTTP Response Code	The response code of the target server at the location
Asia Pacific (Sydney) - PRTG Cloud Response	If the query of the PRTG Cloud was successful or not: <ul style="list-style-type: none"> ▪ Up status: OK ▪ Down status: Failed
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Europe (Ireland)	The response time of the target server at the location in msec
Europe (Ireland) - HTTP Response Code	The response code of the target server at the location

Channel	Description
Europe (Ireland) - PRTG Cloud Response	If the query of the PRTG Cloud was successful or not: <ul style="list-style-type: none"> ▪ Up status: OK ▪ Down status: Failed
Global Average	The global average in msec  This channel is the primary channel by default.
US East (Northern Virginia)	The response time of the target server at the location in msec
US East (Northern Virginia) - HTTP Response Code	The response code of the target server at the location
US East (Northern Virginia) - PRTG Cloud Response	If the query of the PRTG Cloud was successful or not: <ul style="list-style-type: none"> ▪ Up status: OK ▪ Down status: Failed
US West (Northern California)	The response time of the target server at the location in msec
US West (Northern California) - HTTP Response Code	The response code of the target server at the location
US West (Northern California) - PRTG Cloud Response	If the query of the PRTG Cloud was successful or not: <ul style="list-style-type: none"> ▪ Up status: OK ▪ Down status: Failed

More

■ KNOWLEDGE BASE

What is the PRTG Cloud Bot?





- <https://kb.paessler.com/en/topic/65719>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

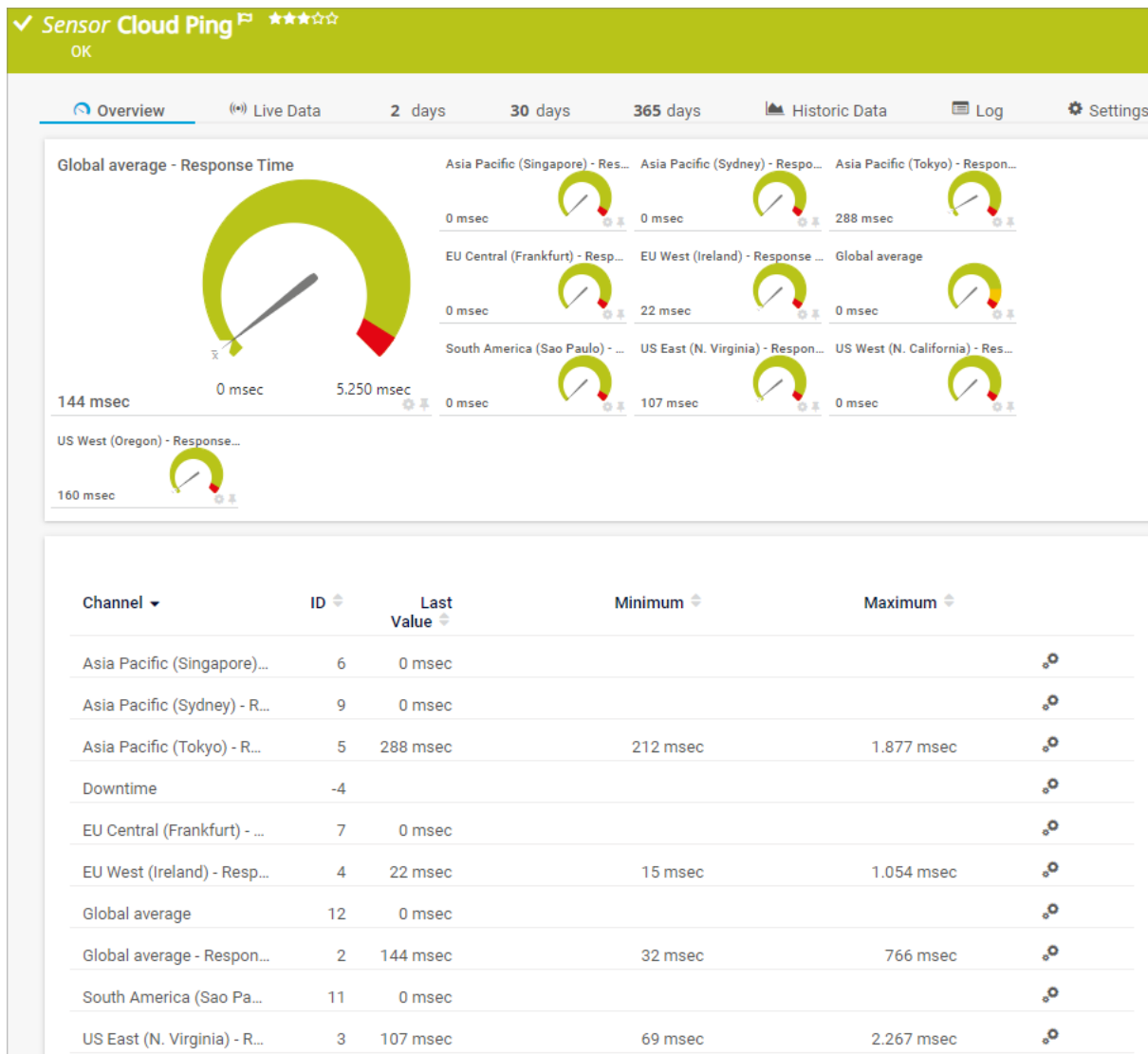
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.18 Cloud Ping Sensor

The Cloud Ping sensor monitors the Transmission Control Protocol (TCP) ping times to its parent device from different locations worldwide via the PRTG Cloud. These locations are distributed among five continents around the globe.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Cloud Ping Sensor

Sensor in Other Languages

- Dutch: Cloud Ping
- French: Cloud Ping
- German: Cloud Ping
- Japanese: クラウド Ping
- Portuguese: Cloud Ping

- Russian:
- Simplified Chinese: 云 Ping
- Spanish: Ping de nube

Remarks

- The probe system must have access to the internet and must be able to reach <https://api.prtgcloud.com:443> to communicate with the PRTG Cloud.
- The address you define in the [settings of the parent device](#) must be reachable over the internet. You cannot use this sensor to monitor localhost (127.0.0.1) or other target devices that are only reachable within your private network.
- This sensor inherits [proxy settings for HTTP sensors](#) from the parent device.
- This sensor has predefined limits for several metrics. You can individually change these limits in the channel settings. For detailed information about channel limits, see section [Channel Settings](#).
- This sensor has a low performance impact.
- See the Knowledge Base: [Are there any limits for using Cloud Ping and Cloud HTTP sensors?](#)
- See the Knowledge Base: [What is the PRTG Cloud Bot?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A text input field containing "exampletag" with a blue 'x' to remove it and a plus sign to add more.
- Priority:** A section with five stars, where the first three are filled, indicating a priority of 3.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree , as well as in alarms , logs , notifications , reports , maps , libraries , and tickets .

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ pingsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Ping Settings

Ping Settings	
Packet Size (Bytes) i	32
Ping Count i	1
Timeout (Sec.) i	5
Port i	80

Ping Settings

Setting	Description
Packet Size (Bytes)	<p>Enter the packet size in bytes for the Ping. You can enter any value between 1 and 10,000.</p> <p>i We recommend that you use the default value.</p>
Ping Count	<p>Enter the number of Pings that PRTG sends in a row to the parent device in one scanning interval. Enter an integer value. The default value is 1. The maximum value is 5.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the Ping. If the reply takes longer than this value, PRTG cancels the request and shows an error message. Enter an integer value. The maximum timeout value is 5 seconds.</p>
Port	<p>Enter the number of the port that the sensor uses for TCP ping. The default port is 80.</p> <p>i This sensor does not support port 25.</p>

Sensor Display

Sensor Display

Primary Channel ⁱ Downtime

Graph Type ⁱ
 Show channels independently (default)


 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⚙ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.


Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ^[142].



Scanning Interval

Click  to interrupt the [inheritance](#) ^[142].

 This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#) ^[4167] settings are not available for this sensor.

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> i You can change the available intervals in the system administration on PRTG on premises installations. </p> <p> i The minimum scanning interval of this sensor is 10 minutes. </p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p> i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply. </p> <p> i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply. </p> <p> i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply. </p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Asia Pacific (Singapore) - Response Time	The response time of the target server at the location in milliseconds (msec)

Channel	Description
Asia Pacific (Sydney) - Response Time	The response time of the target server at the location in msec
Asia Pacific (Tokyo) - Response Time	The response time of the target server at the location in msec
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
EU Central (Frankfurt) - Response Time	The response time of the target server at the location in msec
EU West (Ireland) - Response Time	The response time of the target server at the location in msec
Global Average	The global average in msec
Global Average - Response Time	The global average response time in msec i This channel is the primary channel by default.
South America (São Paulo) - Response Time	The response time of the target server at the location in msec
US East (N. Virginia) - Response Time	The response time of the target server at the location in msec
US West (N. California) - Response Time	The response time of the target server at the location in msec
US West (Oregon) - Response Time	The response time of the target server at the location in msec

More

■ KNOWLEDGE BASE

Are there any limits for using Cloud Ping and Cloud HTTP sensors?

- <https://kb.paessler.com/en/topic/63590>

What is the PRTG Cloud Bot?





- <https://kb.paessler.com/en/topic/65719>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

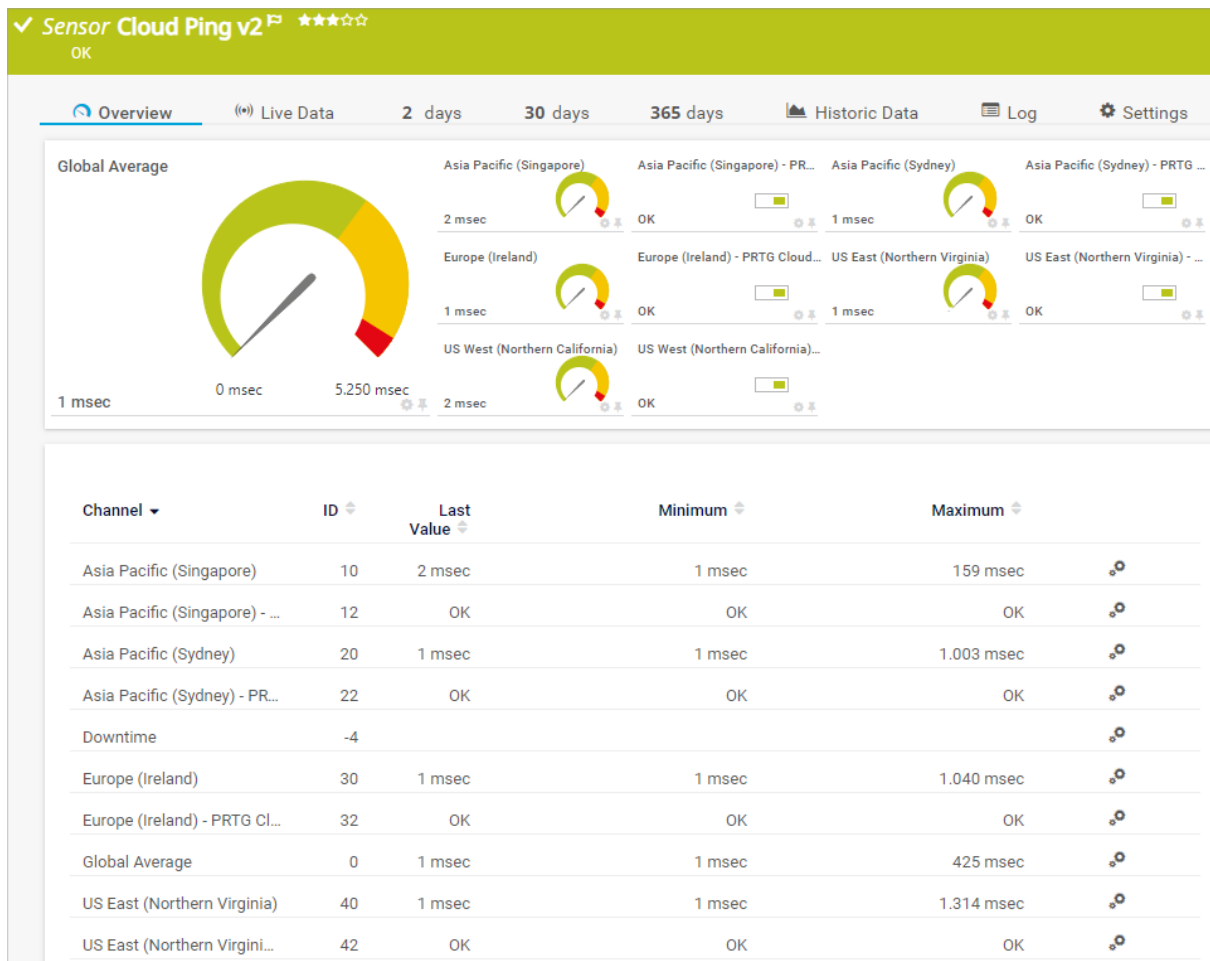
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.19 Cloud Ping v2 Sensor

The Cloud Ping v2 sensor monitors the Transmission Control Protocol (TCP) ping times to its parent device from different locations worldwide via the PRTG Cloud. These locations are distributed among four continents around the globe.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Cloud Ping v2 Sensor

Sensor in Other Languages

- Dutch: Cloud Ping v2
- French: Cloud Ping v2
- German: Cloud Ping v2
- Japanese: Cloud Ping v2
- Portuguese: Cloud Ping v2
- Russian: Cloud Ping v2
- Simplified Chinese: Cloud Ping v2
- Spanish: Cloud Ping v2

Remarks

- This sensor uses Transmission Control Protocol (TCP) ping.
- The probe system must have access to the internet and must be able to reach <https://api.prtgcloud.com:443> to communicate with the PRTG Cloud.
- The address you define in the [settings of the parent device](#) must be reachable over the internet. You cannot use this sensor to monitor localhost (127.0.0.1) or other target devices that are only reachable within your private network.
- This sensor inherits [proxy settings for HTTP sensors](#) from the parent device.
- This sensor has predefined limits for several metrics. You can individually change these limits in the channel settings. For detailed information about channel limits, see section [Channel Settings](#).
- This sensor has a low performance impact.
- See the Knowledge Base: [What is the PRTG Cloud Bot?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field with the placeholder text "Example Name".
- Tags:** A text input field containing "exampletag" with a blue 'x' icon to remove it and a plus icon to add more.
- Priority:** A section with five star icons, all of which are filled, indicating a priority of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	<p>Shows tags [145] that the sensor inherits [145] from its parent device [140], parent group [139], and parent probe [139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited [145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ cloud ▪ cloudpingsensor ▪ ping
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Cloud Ping Specific

Cloud Ping Specific

Target Address ⓘ Inherit (default)
 Custom

Port ⓘ 80

Ping Count ⓘ 1

Region ⓘ

- Asia Pacific (Singapore)
- Asia Pacific (Sydney)
- Europe (Ireland)
- US East (Northern Virginia)
- US West (Northern California)

Timeout (Sec.) ⓘ 5

Cloud Ping Specific

Setting	Description
Target Address	Select if you want to inherit the IP address or the fully qualified domain name (FQDN) from the parent device or if you want to enter a custom target address: <ul style="list-style-type: none"> ▪ Inherit (default) ▪ Custom
Custom Target Address	This option is only visible if you select Custom above. Enter the IP address or the FQDN of the target device.
Port	Enter the number of the port that the sensor uses for TCP ping. The default port is 80. ⓘ This sensor does not support port 25.
Ping Count	Enter the number of Pings that PRTG sends in a row to the parent device in one scanning interval. Enter an integer value. The minimum value is 1. The maximum value is 10.
Region	Select the regions from which you want to check the service:

Setting	Description
	<ul style="list-style-type: none"> ▪ Asia Pacific (Singapore) ▪ Asia Pacific (Sydney) ▪ Europe (Ireland) ▪ US East (Northern Virginia) ▪ US West (Northern California)
Timeout (Sec.)	<p>Enter a timeout in seconds per Ping. You can enter a value between 1 and 30 seconds.</p> <p>i The actual timeout duration depends on the number of Pings that you entered under Ping Count. PRTG calculates this value by multiplying Ping Count by Timeout (Sec.).</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Debug Options


Debug Options

Result Handling ⓘ Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval	
Scanning Interval ⓘ	60 seconds
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Asia Pacific (Singapore)	The response time of the target server at the location in milliseconds (msec)
Asia Pacific (Singapore) - PRTG Cloud Response	<p>If the query of the PRTG Cloud was successful or not:</p> <ul style="list-style-type: none"> ▪ Up status: OK ▪ Down status: Failed
Asia Pacific (Sydney)	The response time of the target server at the location in msec
Asia Pacific (Sydney) - PRTG Cloud Response	<p>If the query of the PRTG Cloud was successful or not:</p> <ul style="list-style-type: none"> ▪ Up status: OK ▪ Down status: Failed
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Europe (Ireland)	The response time of the target server at the location in msec
Europe (Ireland) - PRTG Cloud Response	<p>If the query of the PRTG Cloud was successful or not:</p> <ul style="list-style-type: none"> ▪ Up status: OK

Channel	Description
	<ul style="list-style-type: none"> Down status: Failed
Global Average	<p>The global average response time in msec</p> <p>i This channel is the primary channel by default.</p>
US East (Northern Virginia)	The response time of the target server at the location in msec
US East (Northern Virginia) - PRTG Cloud Response	<p>If the query of the PRTG Cloud was successful or not:</p> <ul style="list-style-type: none"> Up status: OK Down status: Failed
US West (Northern California)	The response time of the target server at the location in msec
US West (Northern California) - PRTG Cloud Response	<p>If the query of the PRTG Cloud was successful or not:</p> <ul style="list-style-type: none"> Up status: OK Down status: Failed

More

■ KNOWLEDGE BASE

What is the PRTG Cloud Bot?





- <https://kb.paessler.com/en/topic/65719>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

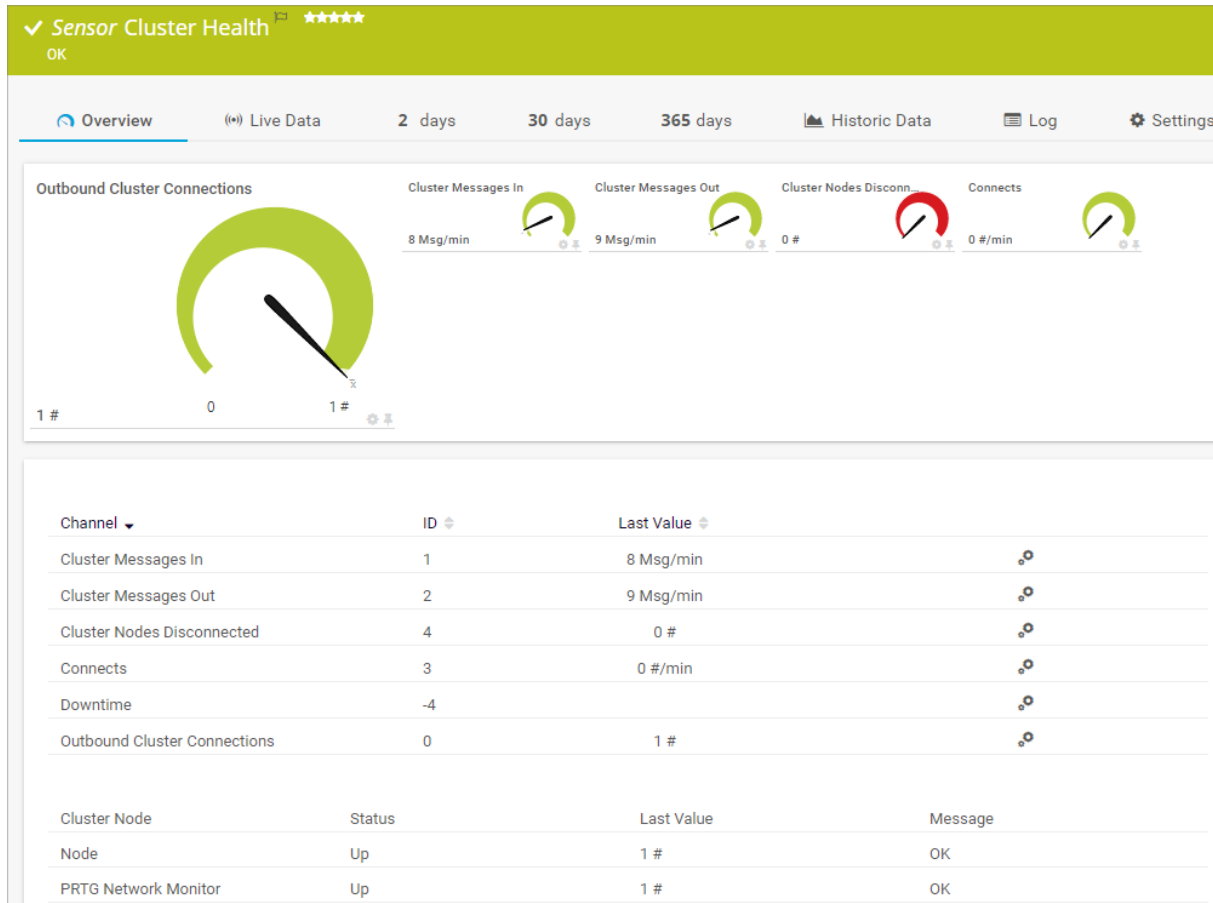
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.20 Cluster Health Sensor

The Cluster Health sensor monitors the health of a [cluster](#)^[135] and indicates the system health status of PRTG.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)^[749].



Cluster Health Sensor

Sensor in Other Languages

- Dutch: Cluster Status
- French: État du cluster
- German: Cluster-Zustand
- Japanese: クラスターの正常性
- Portuguese: Funcionamento do cluster
- Russian:
- Simplified Chinese: 群集健康状况
- Spanish: Salud de clúster

Remarks

- PRTG automatically creates this sensor with a cluster installation. You cannot manually delete it or add it.
- If at least one cluster node is disconnected, this sensor shows the Down [status](#)^[197] by default.
- You can review the states of each cluster node on the sensor's Overview tab.
- You can choose the cluster node for which you want to show data (or for all cluster nodes) on the [monitoring data review tabs](#)^[205].
- This sensor has a very low performance impact.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> clusterhealthsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display

Sensor Display

Primary Channel **ⓘ** Downtime


Graph Type **ⓘ** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Access Rights

Click  to interrupt the [inheritance](#).

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Cluster Messages In	The number of ingoing cluster messages per minute
Cluster Messages Out	The number of outgoing cluster messages per minute
Cluster Nodes Disconnected	The number of disconnected cluster nodes
Connects	The number of connects per minute

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Outbound Cluster Connections	The number of outbound cluster connections  This channel is the primary channel by default.

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

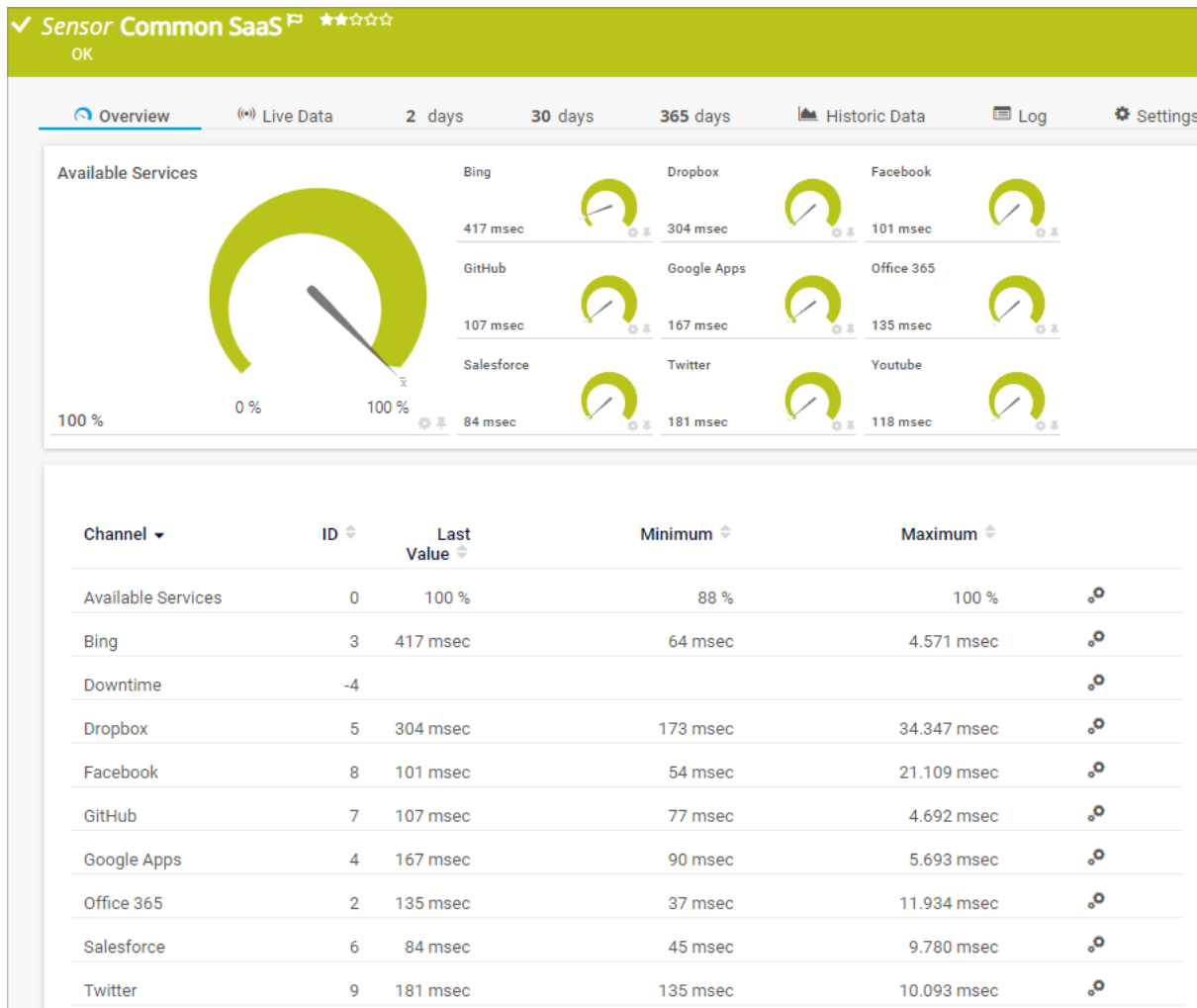
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.21 Common SaaS Sensor

The Common SaaS sensor monitors the availability of several software as a service (SaaS) providers.

i With this sensor, you can get alarms if your cloud services are not reachable.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Common SaaS Sensor

Sensor in Other Languages

- Dutch: Algemene SaaS
- French: SaaS courants
- German: Verbreitete SaaS-Dienste
- Japanese: Common SaaS
- Portuguese: Provedores SaaS Comuns
- Russian: SaaS
- Simplified Chinese: 常用 SaaS

- Spanish: SaaS común

Remarks

- The probe system must have access to the internet.
- This sensor has a fixed scanning interval of 15 minutes. You cannot change it.
- PRTG automatically creates this sensor on every probe device. If the probe system has no connection to the internet, manually [pause](#) or [delete](#) this sensor to avoid error messages.
- This sensor inherits [proxy settings for HTTP sensors](#) from the parent device.
- This sensor has predefined limits for several metrics. You can individually change these limits in the channel settings. For detailed information about channel limits, see section [Channel Settings](#).
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Common SaaS Specific

Setting	Description
SaaS Checklists	<p>Select the services that you want to monitor. The sensor creates one channel for each service that you select.</p> <p>i You can also select all items or cancel the selection by using the check box in the table header.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ X +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ commonsaas ▪ saas
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Debug Options

Debug Options

Result Handling **i**

Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


For more information, see section [Inheritance of Settings](#).


Schedules, Dependencies, and Maintenance Windows


i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.


Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from  Root

Schedule  None ▼



Maintenance Window  Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type  Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from: <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00)



Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>


Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

 inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>For more details on access rights, see section Access Rights Management.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Available Services	<p>The available services in percent</p> <p>i This channel is the primary channel by default.</p>
Bing	The response time of the SaaS provider in milliseconds (msec)
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Dropbox	The response time of the SaaS provider in msec
Facebook	The response time of the SaaS provider in msec
GitHub	The response time of the SaaS provider in msec
Google Apps	The response time of the SaaS provider in msec

Channel	Description
Office 365	The response time of the SaaS provider in msec
Salesforce	The response time of the SaaS provider in msec
Twitter	The response time of the SaaS provider in msec
Youtube	The response time of the SaaS provider in msec

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

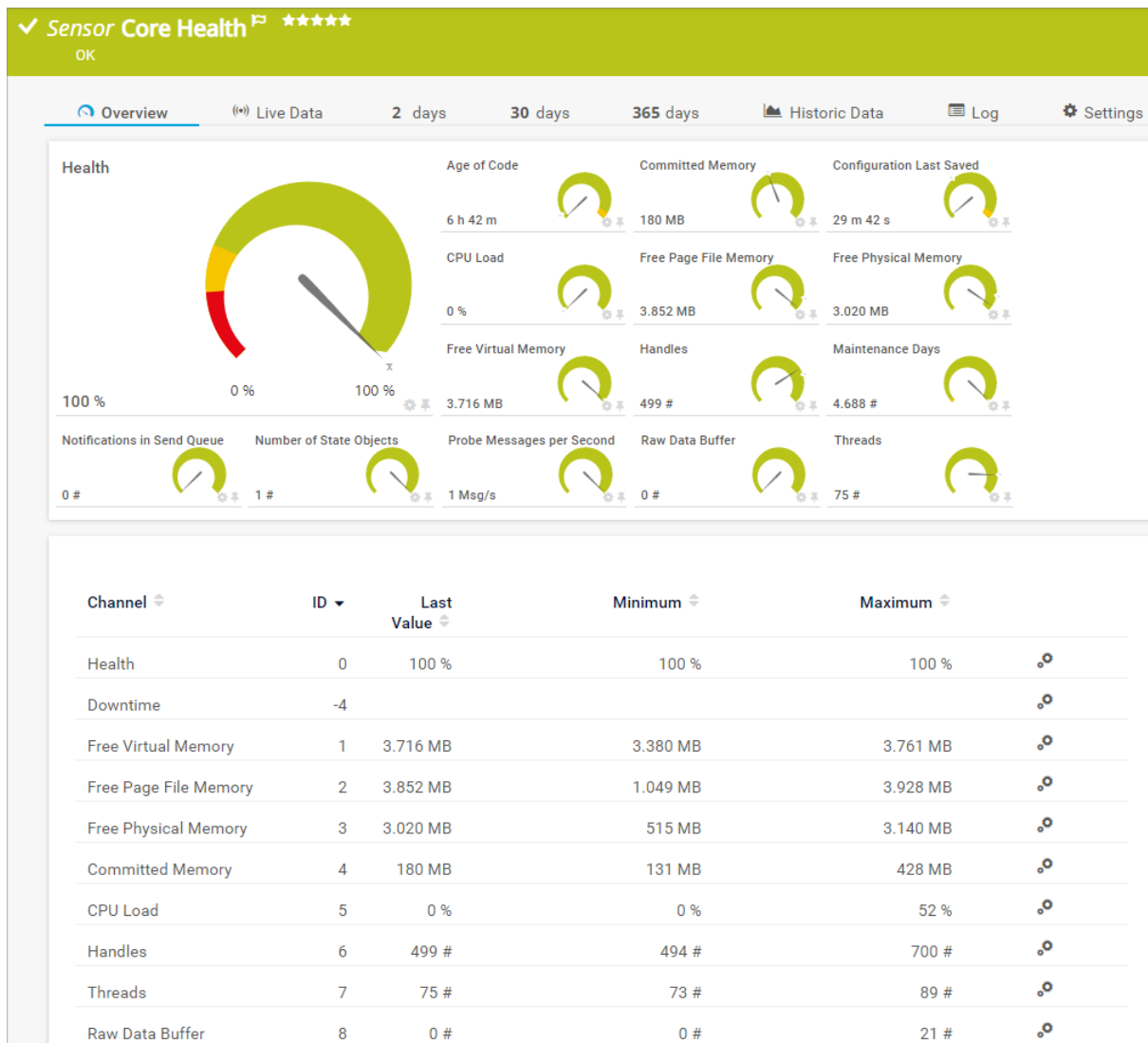
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.22 Core Health Sensor

The Core Health sensor is a probe-dependent sensor that monitors internal PRTG parameters. It shows the status of the PRTG core server and checks various parameters of the PRTG core server that have an impact on the stability of the system.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)⁷⁶⁰.



Core Health Sensor

Sensor in Other Languages

- Dutch: Core Status
- French: État du serveur central
- German: Serverzustand
- Japanese: コアの正常性
- Portuguese: Funcionamento do servidor central

- Russian:
- Simplified Chinese: 核心健康状况
- Spanish: Salud del servidor central

Remarks

- PRTG automatically creates this sensor. You cannot delete it.
- You can only set up this sensor on a local probe device.
- This sensor has a very low performance impact.
- You can also find information related to PRTG core server system memory under Setup | PRTG Status. For details, see the Knowledge Base: [What do the PRTG core memory parameters mean?](#)

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a title 'Basic Sensor Settings' in blue. Below the title, there are three main sections: 'Sensor Name' with an information icon and the text 'Example Name'; 'Tags' with an information icon and a text input field containing 'exampletag' and a plus sign; and 'Priority' with an information icon and a star rating of three stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[408], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p>

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> corehealthsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display

Sensor Display

Primary Channel **i** Downtime


Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Access Rights

Click  to interrupt the [inheritance](#).

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Age of Code	<p>The time that has passed since the last update of your PRTG core server. Update regularly to get the best security and stability for PRTG, as well as the latest features. We recommend that you use the auto-update⁴²⁵⁷ to automatically get new versions.</p>

Channel	Description
Committed Memory	The amount of memory committed to the PRTG core server as reported by the memory manager
Configuration Last Saved	The time passed since the configuration file was last saved successfully. PRTG saves the configuration every 24 hours. If the configuration cannot be saved, PRTG creates a ticket as soon as the saving process has failed, and warns you via this channel after 26 hours. None of your changes to PRTG can be saved if this happens. In this case, restart your PRTG core server to save the file.
CPU Load	The CPU load in percent. Extensive CPU load can lead to false, incomplete, and incorrect monitoring results. This value should usually stay below 50%.
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Page File Memory	The amount of free page file memory that is available on the system. Page file memory is aggregated RAM and the size of page file. It is the maximum amount of memory that is available on the system to be used for all running processes. If it gets too low, the system can break down, and at least some applications throw Out of memory errors.
Free Physical Memory	The amount of free physical memory that is available on the system. This is the RAM that is physically built into the computer. If it gets too low, the system becomes very slow and PRTG no longer works in a useful way. Some sensors might not be displayed correctly and show the Unknown status.
Free Virtual Memory	The address space on the system that PRTG can access. PRTG cannot use more memory than reported here, which is independent from free page file and physical memory. On a 32-bit operating system, the maximum is 2 GB (3 GB with special settings under Windows). On a 64-bit operating system, it is 4 GB if PRTG runs as a 32-bit version, and unlimited if it runs as a 64-bit version (PRTG core server only). If the free virtual memory gets too low, PRTG throws Out of memory errors or the message not enough storage to process this command . This message is visible in the Core log.
Handles	The counter for the data structures of the operating system. It is responsible for internal resource management. Investigate obviously increasing values that occur repeatedly.
Health	The sum of the core state as a value between 100% (healthy) and 0% (failing). Investigate frequent or repeated health values below 100%.  This channel is the primary channel by default.

Channel	Description
Maintenance Days	The remaining maintenance days of your PRTG on premises license. Renew your maintenance in time to make sure that you get updates for your PRTG on premises installation. PRTG Hosted Monitor instances show a fixed value here for technical reasons.
Notifications in Send Queue	The number of notifications that are in the send queue
Number of State Objects	The number of user-specific state objects that are found in the PRTG core server system's memory
Probe Messages per Second	The number of messages sent per second from all probes to the PRTG core server
Raw Data Buffer	The amount of raw data that is temporarily stored on the physical memory during input/output (I/O) operations on the disk. Usually, this value should be 0 (or very low). Investigate increasing values.
Threads	The number of program parts that are running simultaneously. This number can increase with heavy load. Usually, this number should not exceed 100.

More

KNOWLEDGE BASE

What do the PRTG core memory parameters mean?





- <https://kb.paessler.com/en/topic/71671>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

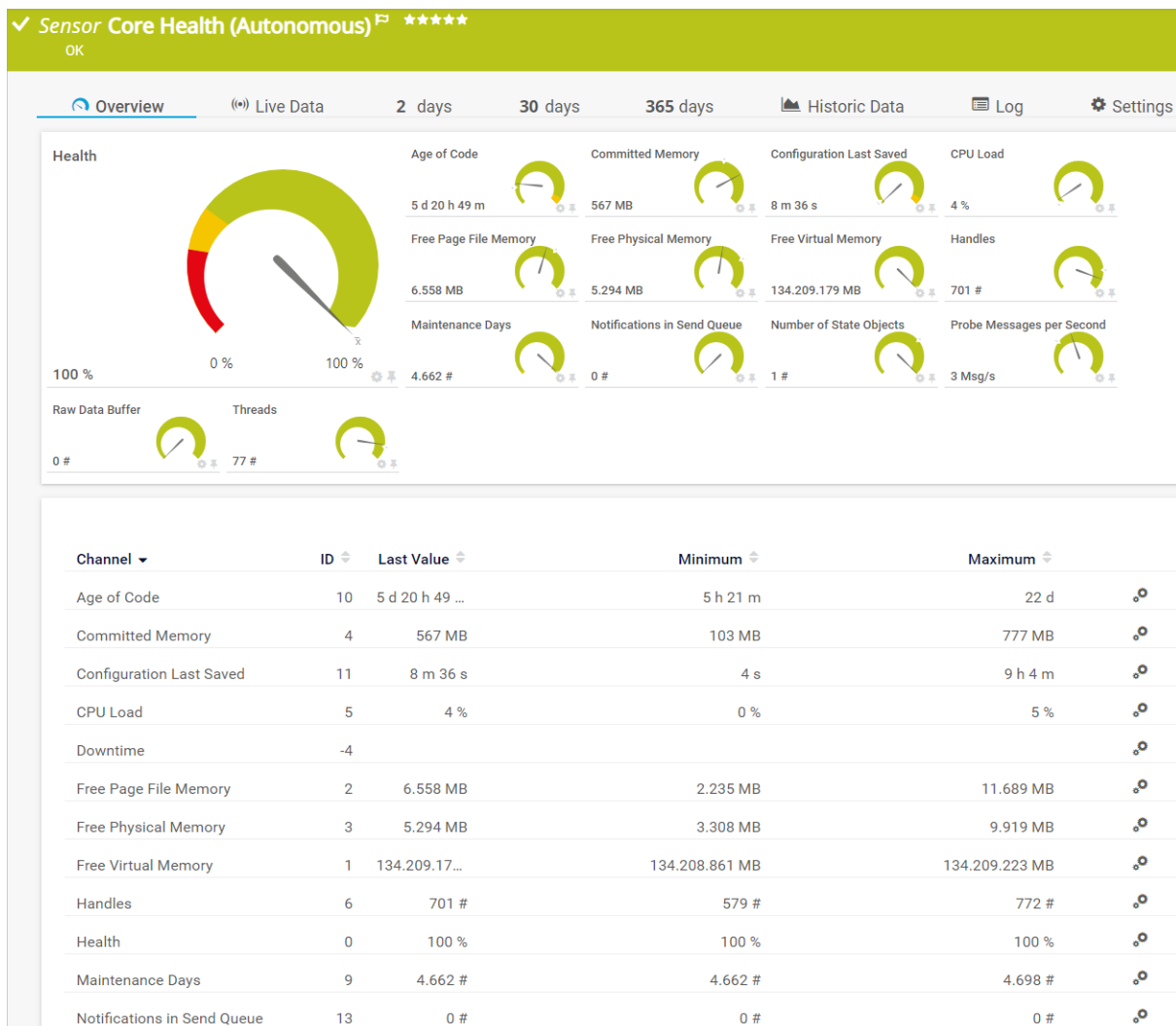
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3997

7.8.23 Core Health (Autonomous) Sensor

The Core Health (Autonomous) sensor is a probe-independent sensor that monitors internal PRTG parameters. It shows the status of the PRTG core server and checks various parameters of the PRTG core server that have an impact on the stability of the system.

i The Core Health (Autonomous) sensor has the same functionality as the [Core Health sensor](#)^[760]. The only difference is that the Core Health (Autonomous) sensor runs independently of the probe. This means that if the probe disconnects, the sensor still monitors the status of the PRTG core server.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)^[773].



Core Health (Autonomous) Sensor

Sensor in Other Languages

- Dutch: Core Health (Autonomous)
- French: Core Health (Autonomous)
- German: Serverzustand (Autonom)
- Japanese: Core Health (Autonomous)

- Portuguese: Core Health (Autonomous)
- Russian: Core Health (Autonomous)
- Simplified Chinese: Core Health (Autonomous)
- Spanish: Core Health (Autonomous)

Remarks

- PRTG automatically creates this sensor. You cannot delete it.
- You cannot add this sensor to a probe.
- This sensor has a very low performance impact.
- You can also find information related to PRTG core server system memory under Setup | PRTG Status. For details, see the Knowledge Base: [What do the PRTG core memory parameters mean?](#)

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' configuration window. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag', and a 'Priority' field set to 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree ^[183] , as well as in alarms ^[228] , logs ^[237] , notifications ^[403] , reports ^[406] , maps ^[405] , libraries ^[407] , and tickets ^[240] . ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?
Parent Tags	Shows tags ^[145] that the sensor inherits ^[145] from its parent device ^[140] , parent group ^[139] , and parent probe ^[139] . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145] .

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> corehealthsensor autonomous
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display

Sensor Display

Primary Channel **ⓘ** Downtime


Graph Type **ⓘ** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Access Rights

Click  to interrupt the [inheritance](#).

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Age of Code	<p>The time that has passed since the last update of your PRTG core server. Update regularly to get the best security and stability for PRTG, as well as the latest features. We recommend that you use the auto-update⁴²⁵⁷ to automatically get new versions.</p>

Channel	Description
Committed Memory	The amount of memory committed to the PRTG core server as reported by the memory manager
Configuration Last Saved	The time passed since the configuration file was last saved successfully. PRTG saves the configuration every 24 hours. If the configuration cannot be saved, PRTG creates a ticket as soon as the saving process has failed, and warns you via this channel after 26 hours. None of your changes to PRTG can be saved if this happens. In this case, restart your PRTG core server to save the file.
CPU Load	The CPU load in percent. Extensive CPU load can lead to false, incomplete, and incorrect monitoring results. This value should usually stay below 50%.
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Page File Memory	The amount of free page file memory that is available on the system. Page file memory is aggregated RAM and the size of page file. It is the maximum amount of memory that is available on the system to be used for all running processes. If it gets too low, the system can break down, and at least some applications throw Out of memory errors.
Free Physical Memory	The amount of free physical memory that is available on the system. This is the RAM that is physically built into the computer. If it gets too low, the system becomes very slow and PRTG no longer works in a useful way. Some sensors might not be displayed correctly and show the Unknown status.
Free Virtual Memory	The address space on the system that PRTG can access. PRTG cannot use more memory than reported here, which is independent from free page file and physical memory. On a 32-bit operating system, the maximum is 2 GB (3 GB with special settings under Windows). On a 64-bit operating system, it is 4 GB if PRTG runs as a 32-bit version, and unlimited if it runs as a 64-bit version (PRTG core server only). If the free virtual memory gets too low, PRTG throws Out of memory errors or the message not enough storage to process this command . This message is visible in the Core log.
Handles	The counter for the data structures of the operating system. It is responsible for internal resource management. Investigate obviously increasing values that occur repeatedly.
Health	The sum of the core state as a value between 100% (healthy) and 0% (failing). Investigate frequent or repeated health values below 100%.  This channel is the primary channel by default.

Channel	Description
Maintenance Days	The remaining maintenance days of your PRTG on premises license. Renew your maintenance in time to make sure that you get updates for your PRTG on premises installation. PRTG Hosted Monitor instances show a fixed value here for technical reasons.
Notifications in Send Queue	The number of notifications that are in the send queue
Number of State Objects	The number of user-specific state objects that are found in the PRTG core server system's memory
Probe Messages per Second	The number of messages sent per second from all probes to the PRTG core server
Raw Data Buffer	The amount of raw data that is temporarily stored on the physical memory during input/output (I/O) operations on the disk. Usually, this value should be 0 (or very low). Investigate increasing values.
Threads	The number of program parts that are running simultaneously. This number can increase with heavy load. Usually, this number should not exceed 100.

More

■ KNOWLEDGE BASE

What do the PRTG core memory parameters mean?





- <https://kb.paessler.com/en/topic/71671>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

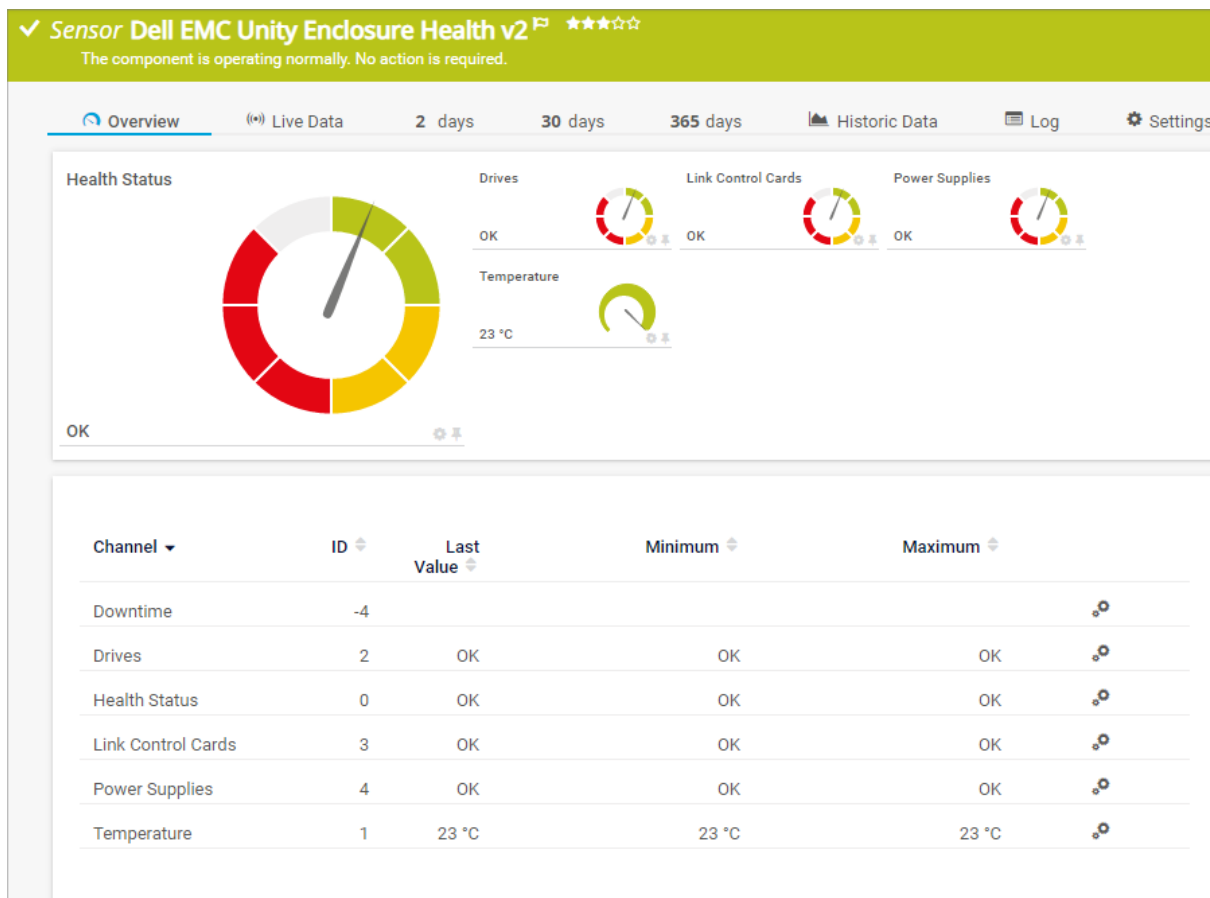
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3997

7.8.24 Dell EMC Unity Enclosure Health v2 Sensor

The Dell EMC Unity Enclosure Health v2 sensor monitors the health of a disk-array enclosure (DAE) or a physical or virtual disk processor enclosure (DPE) on a Dell EMC storage system via the Representational State Transfer (REST) application programming interface (API).

i Dell EMC systems that provide a REST API are [EMC Unity Family](#), [EMC Unity All Flash](#), [EMC Unity Hybrid](#), and [EMC UnityVSA](#).

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ⁷⁸⁸.



Dell EMC Unity Enclosure Health v2 Sensor

Sensor in Other Languages

- Dutch: Dell EMC Unity Enclosure Health v2
- French: Dell EMC Unity Enclosure Health v2
- German: Dell EMC Unity Enclosure Health v2
- Japanese: Dell EMC Unity Enclosure Health v2
- Portuguese: Dell EMC Unity Enclosure Health v2
- Russian: Dell EMC Unity Enclosure Health v2
- Simplified Chinese: Dell EMC Unity Enclosure Health v2

- Spanish: Dell EMC Unity Enclosure Health v2

Remarks

- This sensor requires [credentials for Dell EMC](#) in settings that are higher in the [object hierarchy](#), for example, in the settings of the parent device.
- This sensor only supports systems from the Dell EMC Unity family with Unity OE 5.x.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Dell EMC Specific

Setting	Description
Enclosure Name	<p>Select the enclosure that you want to monitor.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ ⊕

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dellemc ▪ dellemcstorage ▪ dellemcenclosure ▪ restdsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Dell EMC Specific

Dell EMC Specific

Enclosure Name ⓘ

Enclosure Type ⓘ

Dell EMC Specific

Setting	Description
Enclosure Name	Shows the name of the enclosure that the sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Enclosure Type	Shows the type of the enclosure that the sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display


Sensor Display

Primary Channel ⓘ

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.



Debug Options

Debug Options


Result Handling 

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[452] on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 


Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Drives	<p>The status of drives</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: OK, OK But Minor Warning ▪ Warning status: Degraded, Minor Issue ▪ Down status: Major Issue, Critical Issue, Non Recoverable ▪ Unknown status: Unknown
Health Status	<p>The health status</p> <ul style="list-style-type: none"> ▪ Up status: OK, OK But Minor Warning ▪ Warning status: Degraded, Minor Issue ▪ Down status: Major Issue, Critical Issue, Non Recoverable ▪ Unknown status: Unknown <p> This channel is the primary channel by default.</p>
Link Control Cards	The status of link control cards

Channel	Description
	<ul style="list-style-type: none"> ▪ Up status: OK, OK But Minor Warning ▪ Warning status: Degraded, Minor Issue ▪ Down status: Major Issue, Critical Issue, Non Recoverable ▪ Unknown status: Unknown
Power Supplies	<p>The status of power supplies</p> <ul style="list-style-type: none"> ▪ Up status: OK, OK But Minor Warning ▪ Warning status: Degraded, Minor Issue ▪ Down status: Major Issue, Critical Issue, Non Recoverable ▪ Unknown status: Unknown
Temperature	The temperature

More





■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

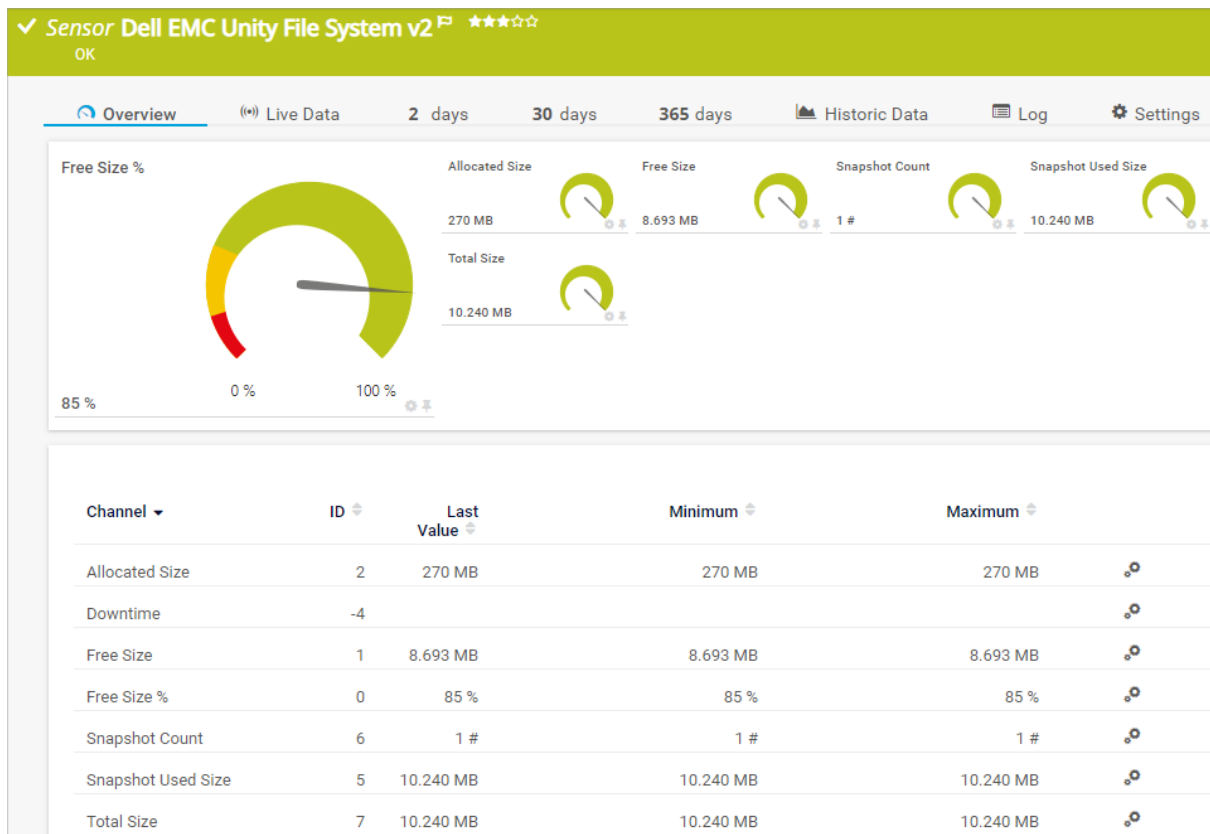
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.25 Dell EMC Unity File System v2 Sensor

The Dell EMC Unity File System v2 sensor monitors a file system on a Dell EMC storage system via the Representational State Transfer (REST) application programming interface (API).

❶ Dell EMC systems that provide a REST API are [EMC Unity Family](#), [EMC Unity All Flash](#), [EMC Unity Hybrid](#), and [EMC UnityVSA](#).

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Dell EMC Unity File System v2 Sensor

Sensor in Other Languages

- Dutch: Dell EMC Unity File System v2
- French: Dell EMC Unity File System v2
- German: Dell EMC Unity File System v2
- Japanese: Dell EMC Unity File System v2
- Portuguese: Dell EMC Unity File System v2
- Russian: Dell EMC Unity File System v2
- Simplified Chinese: Dell EMC Unity File System v2
- Spanish: Dell EMC Unity File System v2

Remarks

- This sensor requires [credentials for Dell EMC](#) in settings that are higher in the [object hierarchy](#), for example, in the settings of the parent device.
- This sensor only supports systems from the Dell EMC Unity family with Unity OE 5.x.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name**: A text input field containing "Example Name".
- Tags**: A list of tags with "exampletag" selected, and a plus sign icon to add more.
- Priority**: A star rating system showing three stars filled and two empty.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p>

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dellemc ▪ dellemcfilesystem ▪ dellemcstorage ▪ emcfilesystemsensor ▪ emcsensor ▪ restsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Dell EMC Specific

Dell EMC Specific

File System Name ⓘ

File System Type ⓘ *Thin*

Protocol ⓘ *CIFS/SMB Share*

Dell EMC Specific

Setting	Description
File System Name	Shows the name of the file system that the sensor monitors. <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Setting	Description
File System Type	Shows the type of the file system that the sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Protocol	Shows the protocol under which the monitored file system operates. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Debug Options

Debug Options

Result Handling ⓘ


Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].



Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

 inherit from  Root

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails.

Setting	Description
	<p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** None



Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00)



Setting	Description
	<ul style="list-style-type: none"> ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>


Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

 inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups¹⁴² that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#)¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 


Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Allocated Size	The allocated size in bytes
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Size	The free size in bytes
Free Size %	<p>The free size in percent</p> <p> This channel is the primary channel by default.</p>
Snapshot Count	The snapshot count
Snapshot Used Size	The used snapshot size in bytes
Total Size	The total size in bytes

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

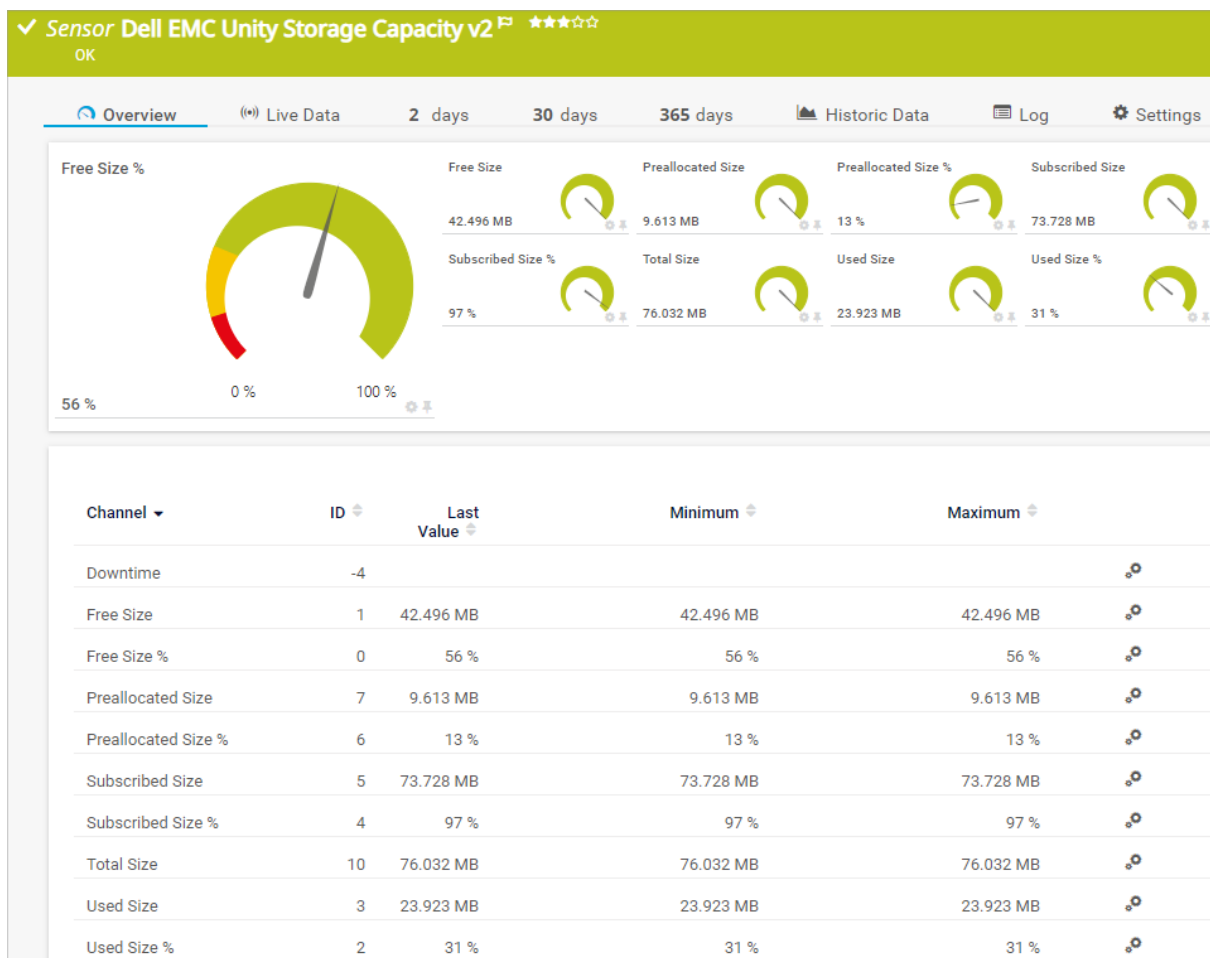
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.26 Dell EMC Unity Storage Capacity v2 Sensor

The Dell EMC Unity Storage Capacity v2 sensor monitors a Dell EMC storage system via the Representational State Transfer (REST) application programming interface (API).

i Dell EMC systems that provide a REST API are [EMC Unity Family](#), [EMC Unity All Flash](#), [EMC Unity Hybrid](#), and [EMC UnityVSA](#).

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Dell EMC Unity Storage Capacity v2 Sensor

Sensor in Other Languages

- Dutch: Dell EMC Unity Storage Capacity v2
- French: Dell EMC Unity Storage Capacity v2
- German: Dell EMC Unity Storage Capacity v2
- Japanese: Dell EMC Unity Storage Capacity v2
- Portuguese: Dell EMC Unity Storage Capacity v2
- Russian: Dell EMC Unity Storage Capacity v2
- Simplified Chinese: Dell EMC Unity Storage Capacity v2

- Spanish: Dell EMC Unity Storage Capacity v2

Remarks

- This sensor requires [credentials for Dell EMC](#) in settings that are higher in the [object hierarchy](#), for example, in the settings of the parent device.
- This sensor only supports systems from the Dell EMC Unity family with Unity OE 5.x.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A list of tags with "exampletag" selected. There are "X" and "+" icons for removing and adding tags.
- Priority:** A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dellemc ▪ dellemccapacity ▪ dellemcstorage ▪ emccapacitysensor ▪ emcsensor ▪ restsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display


Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels</p>

Setting	Description
	<p>are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Debug Options

Debug Options


Result Handling **i**

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click  to interrupt the inheritance.


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Size	The free size in bytes

Channel	Description
Free Size %	The free size in percent i This channel is the primary channel by default.
Preallocated Size	The preallocated size in bytes
Preallocated Size %	The preallocated size in percent
Subscribed Size	The subscribed size in bytes
Subscribed Size %	The subscribed size in percent
Total Size	The total size in bytes
Used Size	The used size in bytes
Used Size %	The used size in percent

More





■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

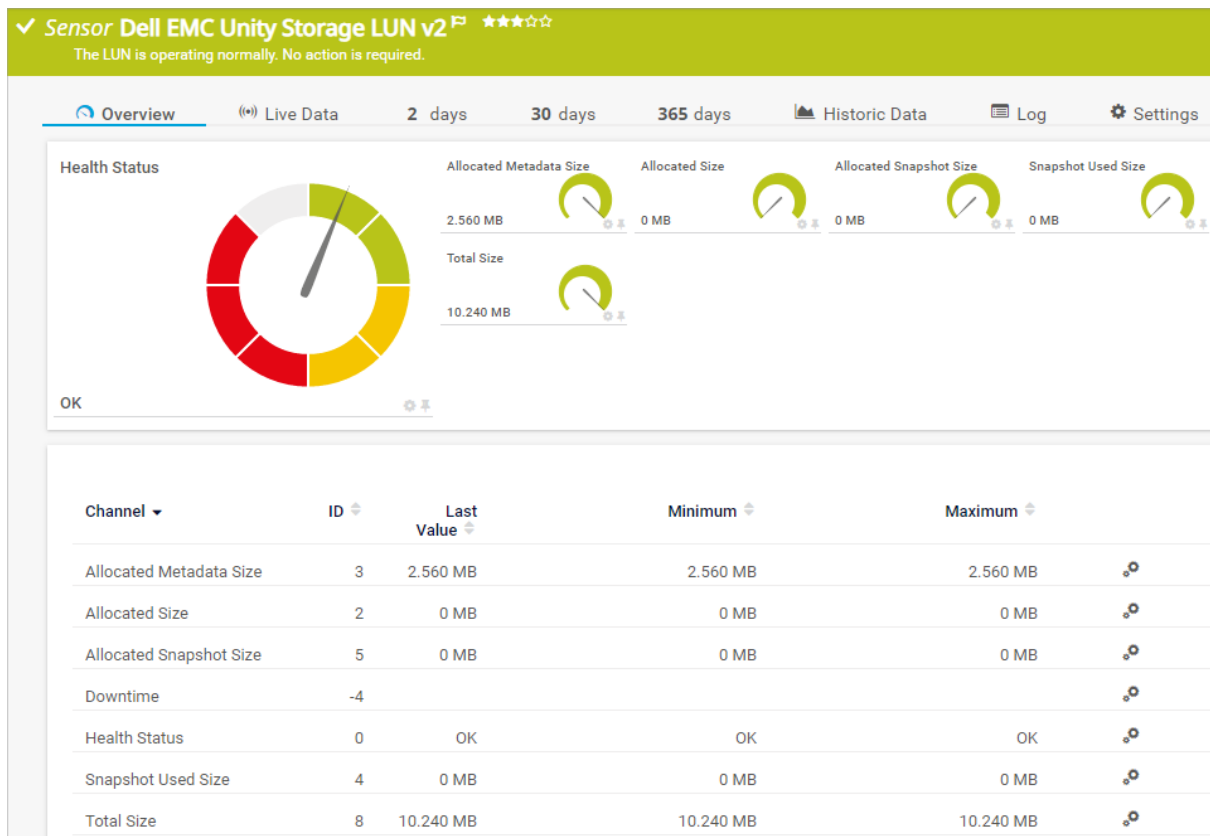
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.27 Dell EMC Unity Storage LUN v2 Sensor

The Dell EMC Unity Storage LUN v2 sensor monitors a logical unit number (LUN) on a Dell EMC storage system via the Representational State Transfer (REST) application programming interface (API).

❶ Dell EMC systems that provide a REST API are [EMC Unity Family](#), [EMC Unity All Flash](#), [EMC Unity Hybrid](#), and [EMC UnityVSA](#).

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Dell EMC Unity Storage LUN v2 Sensor

Sensor in Other Languages

- Dutch: Dell EMC Unity Storage LUN v2
- French: Dell EMC Unity Storage LUN v2
- German: Dell EMC Unity Storage LUN v2
- Japanese: Dell EMC Unity Storage LUN v2
- Portuguese: Dell EMC Unity Storage LUN v2
- Russian: Dell EMC Unity Storage LUN v2
- Simplified Chinese: Dell EMC Unity Storage LUN v2
- Spanish: Dell EMC Unity Storage LUN v2

Remarks

- This sensor requires [credentials for Dell EMC](#) [459] in settings that are higher in the [object hierarchy](#) [136], for example, in the settings of the parent device.
- This sensor only supports systems from the Dell EMC Unity family with Unity OE 5.x.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#) [448].

Add Sensor

The [Add Sensor](#) [367] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG performs a meta-scan before you can add this sensor and requires basic information in advance. Provide the required information in the dialog box that appears. PRTG then recognizes all items that are available for monitoring based on your input.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Dell EMC Specific

Setting	Description
LUN	<p>Select the logical unit numbers (LUN) that you want to monitor. PRTG creates one sensor for each LUN that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ ⊕

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dellemc ▪ dellemclun ▪ dellemcstorage ▪ emclunsensor ▪ emcsensor ▪ restsensor

Setting	Description
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Dell EMC Specific

Dell EMC Specific

LUN **i** LUN_02
LUN ID **i** sv_15

Dell EMC Specific


Setting	Description
LUN	Shows the name of the LUN that the sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
LUN ID	Shows the ID of the LUN that the sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel **i** Downtime
Graph Type **i**
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Debug Options


Debug Options

Result Handling **i**


Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Allocated Metadata Size	The allocated metadata size in bytes
Allocated Size	The allocated size in bytes
Allocated Snapshot Size	The allocated snapshot size in bytes

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Health Status	<p>The health status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: OK, OK But Minor Warning ▪ Warning status: Degraded, Minor Issue ▪ Down status: Major Issue, Critical Issue, Non Recoverable ▪ Unknown status: Unknown <p> This channel is the primary channel by default.</p>
Total Size	The total size in bytes
Snapshot Used Size	The used snapshot size in bytes

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

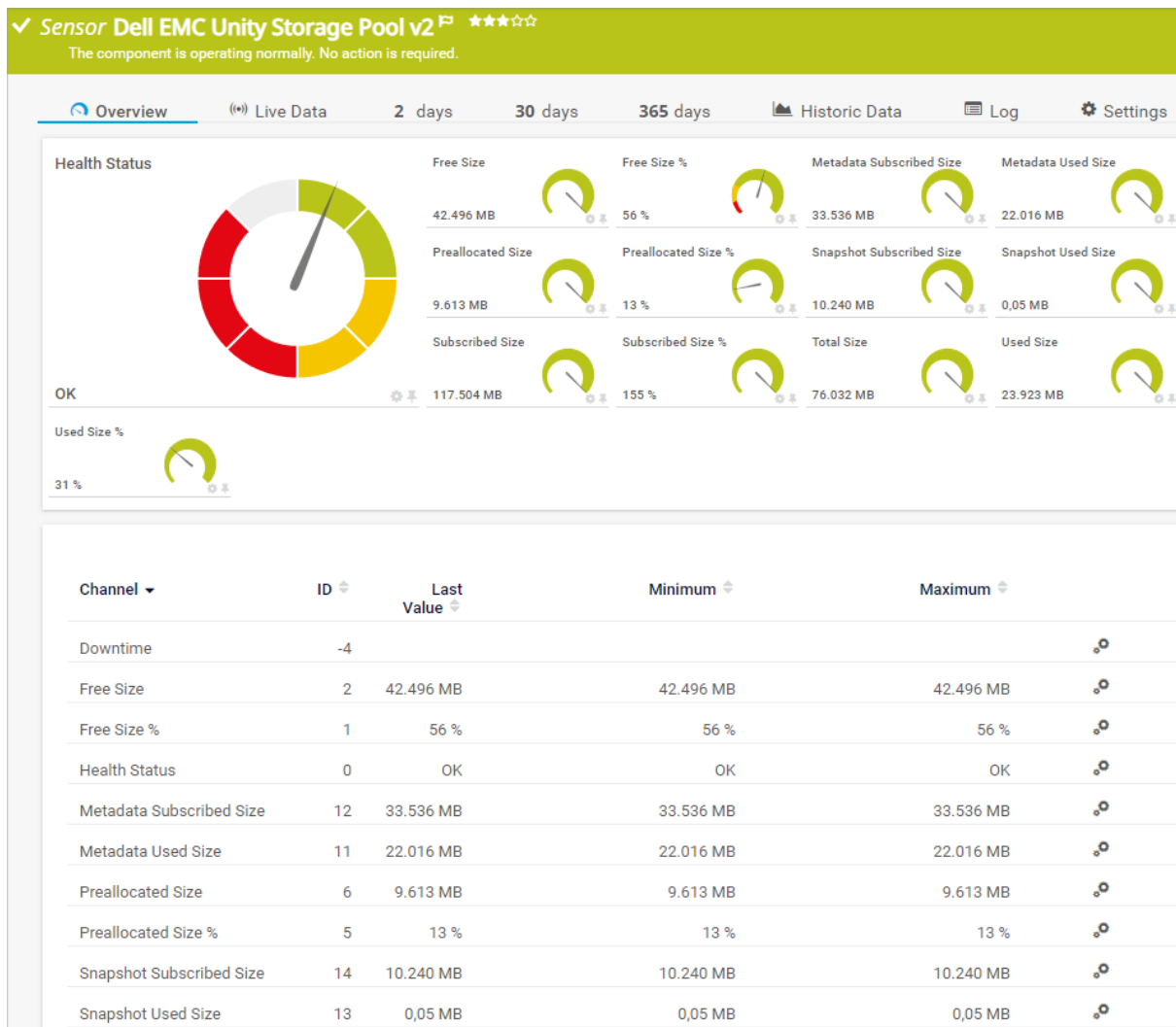
- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.8.28 Dell EMC Unity Storage Pool v2 Sensor

The Dell EMC Unity Storage Pool v2 sensor monitors a storage pool on a Dell EMC storage system via the Representational State Transfer (REST) application programming interface (API).

i Dell EMC systems that provide a REST API are [EMC Unity Family](#), [EMC Unity All Flash](#), [EMC Unity Hybrid](#), and [EMC UnityVSA](#).

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ⁸³⁵.



Dell EMC Unity Storage Pool v2 Sensor

Sensor in Other Languages

- Dutch: Dell EMC Unity Storage Pool v2
- French: Dell EMC Unity Storage Pool v2
- German: Dell EMC Unity Storage Pool v2
- Japanese: Dell EMC Unity Storage Pool v2
- Portuguese: Dell EMC Unity Storage Pool v2

- Russian: Dell EMC Unity Storage Pool v2
- Simplified Chinese: Dell EMC Unity Storage Pool v2
- Spanish: Dell EMC Unity Storage Pool v2

Remarks

- This sensor requires [credentials for Dell EMC](#) in settings that are higher in the [object hierarchy](#), for example, in the settings of the parent device.
- This sensor only supports systems from the Dell EMC Unity family with Unity OE 5.x.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG performs a meta-scan before you can add this sensor and requires basic information in advance. Provide the required information in the dialog box that appears. PRTG then recognizes all items that are available for monitoring based on your input.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Dell EMC Specific

Setting	Description
Storage Pool Name	<p>Select the storage pools that you want to monitor. PRTG creates one sensor for each storage pool that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ +

Priority ⓘ ★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dellemc ▪ dellemcpool ▪ dellemcstorage ▪ emcpoolsensor ▪ emcsensor ▪ restsensor

Setting	Description
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Dell EMC Specific

Dell EMC Specific

Storage Pool Name ⓘ *Datastore*

Storage Pool ID ⓘ *pool_1*

Dell EMC Specific

Setting	Description
Storage Pool Name	Shows the name of the storage pool that the sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Storage Pool ID	Shows the ID of the storage pool that the sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.


Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Debug Options


Debug Options

Result Handling **i**


Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Size	The free size in bytes

Channel	Description
Free Size %	The free size in percent
Health Status	<p>The health status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: OK, OK But Minor Warning ▪ Warning status: Degraded, Minor Issue ▪ Down status: Major Issue, Critical Issue, Non Recoverable ▪ Unknown status: Unknown <p> This channel is the primary channel by default.</p>
Metadata Subscribed Size	The subscribed metadata size in bytes
Metadata Used Size	The used metadata size in bytes
Preallocated Size	The preallocated size in bytes
Preallocated Size %	The preallocated size in percent
Snapshot Subscribed Size	The subscribed snapshot size in bytes
Snapshot Used Size	The used snapshot size in bytes
Subscribed Size	The subscribed size in bytes
Subscribed Size %	The subscribed size in percent
Total Size	The total size in bytes
Used Size	The used size in bytes
Used Size %	The used size in percent

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

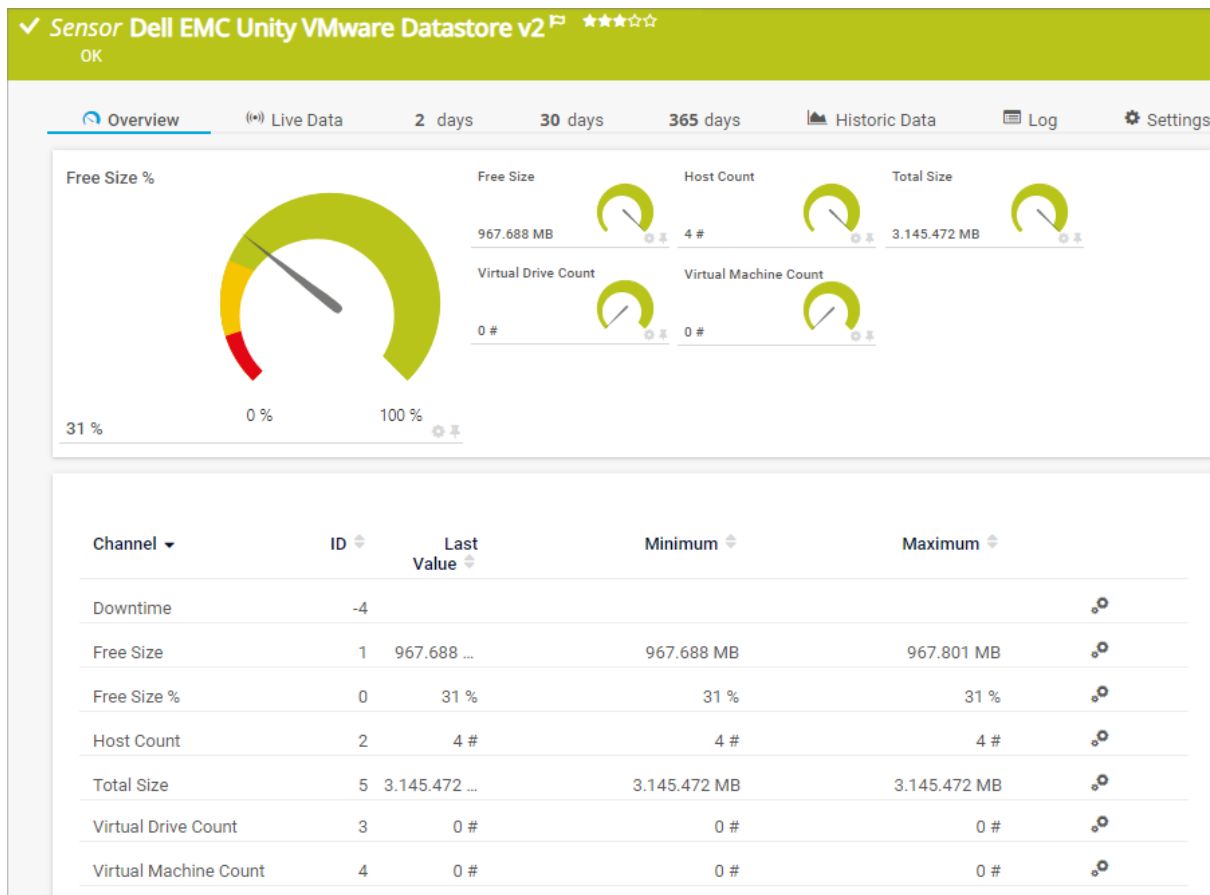
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.29 Dell EMC Unity VMware Datastore v2 Sensor

The Dell EMC Unity VMware Datastore v2 sensor monitors a VMware datastore on a Dell EMC storage system via the Representational State Transfer (REST) application programming interface (API).

❶ Dell EMC systems that provide a REST API are [EMC Unity Family](#), [EMC Unity All Flash](#), [EMC Unity Hybrid](#), and [EMC UnityVSA](#).

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ⁸⁴⁸.



Dell EMC Unity VMw are Datastore v2 Sensor

Sensor in Other Languages

- Dutch: Dell EMC Unity VMware Datastore v2
- French: Dell EMC Unity VMware Datastore v2
- German: Dell EMC Unity VMware Datastore v2
- Japanese: Dell EMC Unity VMware Datastore v2
- Portuguese: Dell EMC Unity VMware Datastore v2
- Russian: Dell EMC Unity VMware Datastore v2
- Simplified Chinese: Dell EMC Unity VMware Datastore v2
- Spanish: Dell EMC Unity VMware Datastore v2

Remarks

- This sensor requires [credentials for Dell EMC](#) in settings that are higher in the [object hierarchy](#), for example, in the settings of the parent device.
- This sensor only supports systems from the Dell EMC Unity family with Unity OE 5.x.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Dell EMC Specific

Setting	Description
VMware Datastore Name	<p>Select the VMware datastores that you want to monitor. PRTG creates one sensor for each VMware datastore that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ?

Tags ? ✕ +

Priority ? ★★★★★

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dellemc ▪ dellemcvmware ▪ dellemcdatastore ▪ emcsensor ▪ restsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Dell EMC Specific

Dell EMC Specific

VMware Datastore Name ⓘ VMFS_01

VMware Datastore Type ⓘ VMFS version 6

Dell EMC Specific

Setting	Description
VMware Datastore Name	Shows the name of the VMware datastore that the sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
VMware Datastore Type	Shows the type of the VMware datastore that the sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ⓘ).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Debug Options

Debug Options

Result Handling ⓘ


Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails.

Setting	Description
	<p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** None



Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00)



Setting	Description
	<ul style="list-style-type: none"> ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>


Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

 inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 


Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Size	The free size in bytes
Free Size %	<p>The free size in percent</p> <p> This channel is the primary channel by default.</p>
Host Count	The number of hosts
Total Size	The total size in bytes
Virtual Drive Count	The number of virtual drives
Virtual Machine Count	The number of virtual machines

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

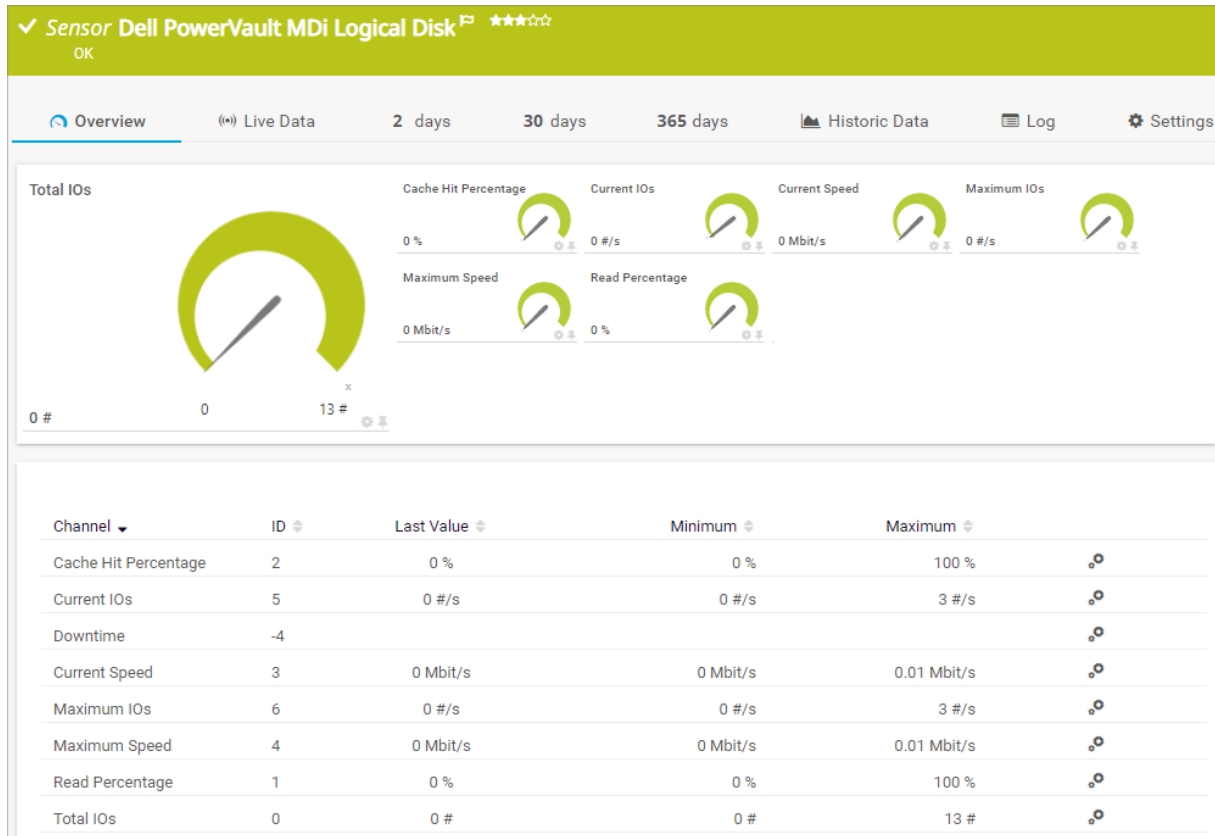
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.30 Dell PowerVault MDi Logical Disk Sensor

The Dell PowerVault MDi Logical Disk sensor monitors a virtual disk on a Dell PowerVault system.

i The sensor supports Dell PowerVault [MD3000i](#), [MD3420](#), [MD3620i](#), [MD3000f](#), [MD3620f](#), or [MD3820i](#). It might work with other models, too.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Dell PowerVault MDi Logical Disk Sensor

Sensor in Other Languages

- Dutch: Dell PowerVault MDi Logische Schijf
- French: Disque logique Dell PowerVault MDi
- German: Dell PowerVault MDi Logischer Datenträger
- Japanese: Dell PowerVault MDi 論理ディスク
- Portuguese: Disco lógico Dell PowerVault MDi
- Russian: Dell PowerVault MDi
- Simplified Chinese: Dell PowerVault MDi 逻辑磁盘
- Spanish: Disco lógico de Dell PowerVault MDi

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires Dell Modular Disk Storage Manager on the probe system. See the Knowledge Base: [Where do I find the Dell PowerVault Modular Disk Storage Manager for use with my MDi SAN?](#)
- This sensor requires the IP address of the storage area network (SAN) defined in the settings of the parent device.
- This sensor works with Dell PowerVault MD3000i, MD3420, MD3620i, MD3000f, MD3620f, or MD3820i, and might support other models.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Dell Modular Disk Storage Manager	<p>This sensor requires the installation of the Dell Modular Disk Storage Manager program. You have to install it on the probe system (on every cluster node, if on a cluster probe). For details about setup, see section More below.</p> <p>i Create this sensor on a device that has the IP address of the SAN configured in the IP Address/DNS Name field of the sensor settings.</p>

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Sensor Settings

Setting	Description
Virtual Disks	<p>Select the virtual disks that you want to monitor. PRTG creates one sensor for each virtual disk that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a title 'Basic Sensor Settings' in blue. Below the title are three settings: 'Sensor Name' with a value of 'Example Name', 'Tags' with a value of 'exampletag' and a plus sign to add more, and 'Priority' set to 5 stars (represented by five star icons).

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[409], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ powervault
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings

Important: The Dell Modular Disk Storage Manager needs to be installed on the probe system.

Virtual Disk **ⓘ**

Result Handling **ⓘ** Discard result
 Store result

Sensor Settings

Setting	Description
Virtual Disk	Shows the name of the virtual disk that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. i In a cluster, PRTG stores the result in the PRTG data directory of the master node.




Sensor Display

Sensor Display


Primary Channel **ⓘ**

Graph Type **ⓘ** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

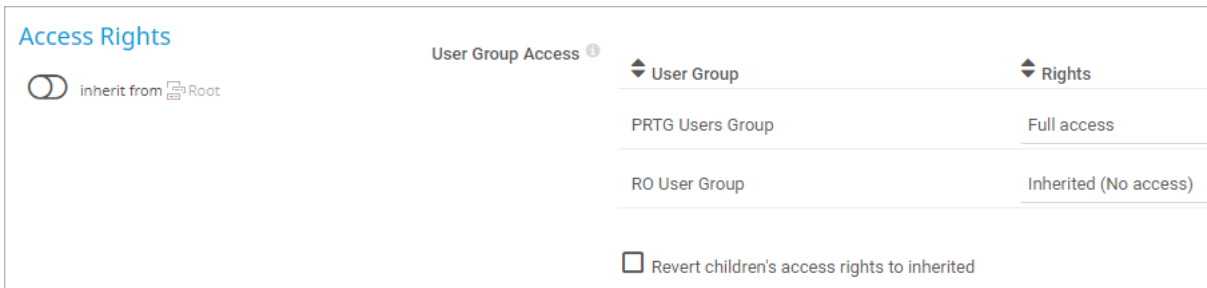
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights


Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**


Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Cache Hit Percentage	The cache hits in percent
Current IOs	The number of current input/output (I/O) operations per second
Current Speed	The current disk speed per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Maximum IOs	The number of maximum I/O operations per second
Maximum Speed	The maximum disk speed per second
Read Percentage	The read operations in percent
Total IOs	The total number of I/O operations  This channel is the primary channel by default.

More

■ KNOWLEDGE BASE

Where do I find the Dell PowerVault Modular Disk Storage Manager for use with my MDi SAN?





- <https://kb.paessler.com/en/topic/38743>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

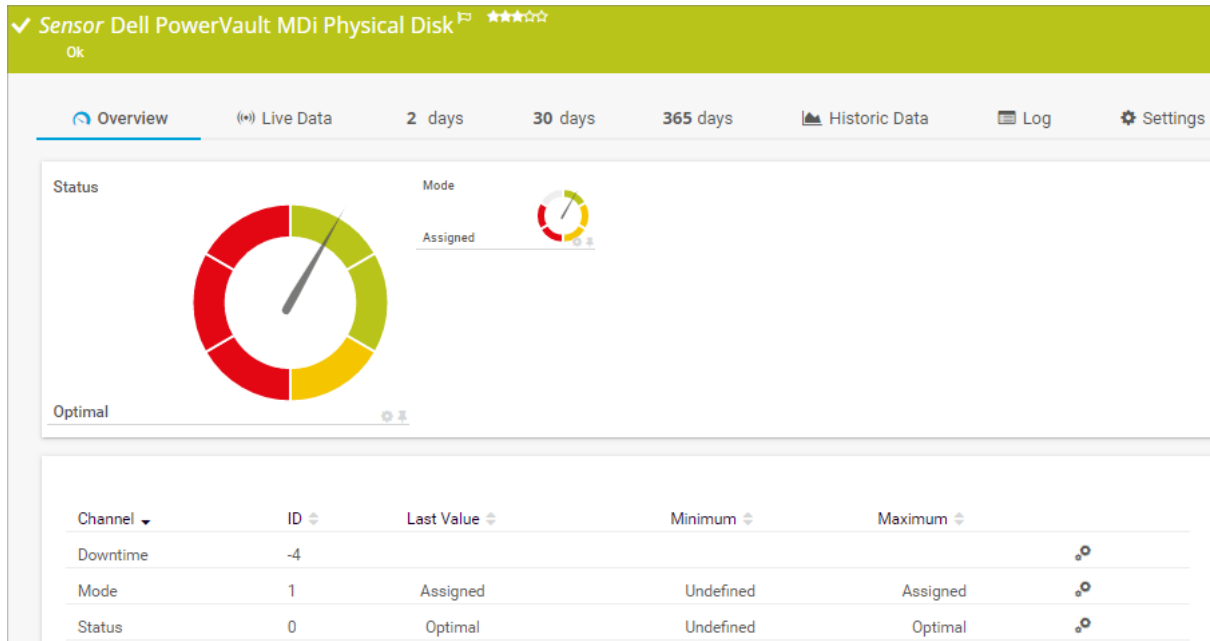
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.31 Dell PowerVault MDi Physical Disk Sensor

The Dell PowerVault MDi Physical Disk sensor monitors a physical disk on a Dell PowerVault system.

i The sensor supports Dell PowerVault [MD3000i](#), [MD3420](#), [MD3620i](#), [MD3000f](#), [MD3620f](#), or [MD3820i](#). It might work with other models, too.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)⁸⁷⁰.



Dell PowerVault MDi Physical Disk Sensor

Sensor in Other Languages

- Dutch: Dell PowerVault MDi Fysieke Schijf
- French: Disque physique Dell PowerVault MDi
- German: Dell PowerVault MDi Physikalischer Datenträger
- Japanese: Dell PowerVault MDi 物理ディスク
- Portuguese: Disco físico Dell PowerVault MDi
- Russian: Dell PowerVault MDi
- Simplified Chinese: Dell PowerVault MDi 物理磁盘
- Spanish: Disco físico de Dell PowerVault MDi

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires Dell Modular Disk Storage Manager on the probe system. See the Knowledge Base: [Where do I find the Dell PowerVault Modular Disk Storage Manager for use with my MDi SAN?](#)

- This sensor requires the IP address of the storage area network (SAN) defined in the settings of the parent device.
- This sensor only supports devices with one drawer of hard-drives. Multiple drawers are not supported and prevent sensor creation.
- This sensor supports the IPv6 protocol.
- This sensor works with Dell PowerVault MD3000i, MD3420, MD3620i, MD3000f, MD3620f, or MD3820i, and might support other models.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)^[448].

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Dell Modular Disk Storage Manager	<p>This sensor requires the installation of the Dell Modular Disk Storage Manager program. You have to install it on the probe system (on every cluster node, if on a cluster probe). For details about setup, see section More below.</p> <p>i Create this sensor on a device that has the IP address of the SAN configured in the IP Address/DNS Name field of the sensor settings.</p>

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Sensor Settings

Setting	Description
Disk	<p>Select the physical disks that you want to monitor. PRTG creates one sensor for each physical disk that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag ✕ +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ powervault
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★★★★☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings

Important: The Dell Modular Disk Storage Manager needs to be installed on the probe system.

Physical Disk **i** Disk1

Result Handling **i** Discard result
 Store result

Sensor Settings

Setting	Description
Physical Disk	Shows the physical disk that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. i In a cluster, PRTG stores the result in the PRTG data directory of the master node.




Sensor Display

Sensor Display


Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

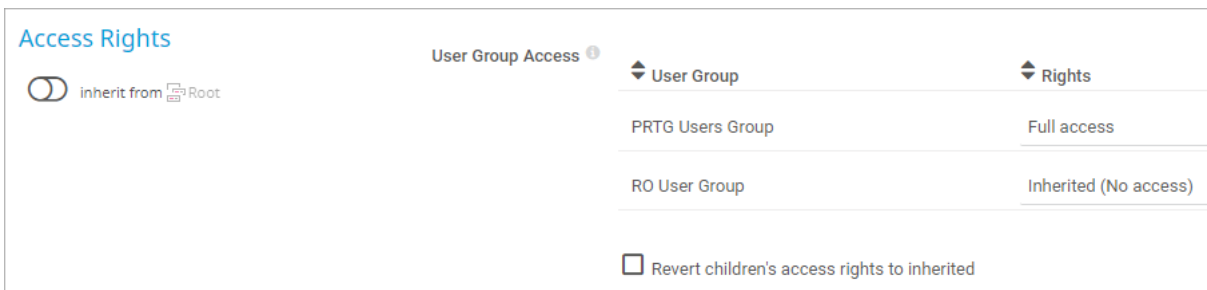
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights


Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

The sensor shows the status and mode of the physical disk in the channels as reported in the [Modular Disk Storage Manager](#). Status and mode combined indicate the particular status of a redundant array of independent disks (RAID) controller physical disk. The table below provides you with the status description according to the Dell documentation:

Status Channel	Mode Channel	Description
Up status ^[197] : Optimal	Unassigned	The physical disk in the indicated slot is unused and available to be configured
	Assigned	The physical disk in the indicated slot is configured as part of a disk group
	Hot Spare Standby	The physical disk in the indicated slot is configured as a hot spare
	Hot Spare In Use	The physical disk in the indicated slot is in use as a hot spare within a disk group
Down status: Failed	<ul style="list-style-type: none"> ▪ Assigned ▪ Unassigned ▪ Hot Spare In Use ▪ Hot Spare Standby 	The physical disk in the indicated slot has failed because of an unrecoverable error, an incorrect drive type or drive size, or by its operational state being set to failed
	Assigned	The physical disk in the indicated slot has been replaced and is ready to be, or is actively being, configured into a disk group
	<ul style="list-style-type: none"> ▪ Assigned ▪ Unassigned ▪ Hot Spare In Use ▪ Hot Spare Standby 	A Self-Monitoring, Analysis and Reporting Technology (S.M.A.R.T.) error has been detected on the physical disk in the indicated slot
	Warning status: None	None	The indicated slot is empty, or the array cannot detect the physical disk
Down status: Undefined		

More

■ KNOWLEDGE BASE

Where do I find the Dell PowerVault Modular Disk Storage Manager for use with my MDi SAN?

- <https://kb.paessler.com/en/topic/38743>





What security features does PRTG include?

Part 7: Device and Sensor Setup | 8 Sensor Settings
31 Dell PowerVault MDi Physical Disk Sensor

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

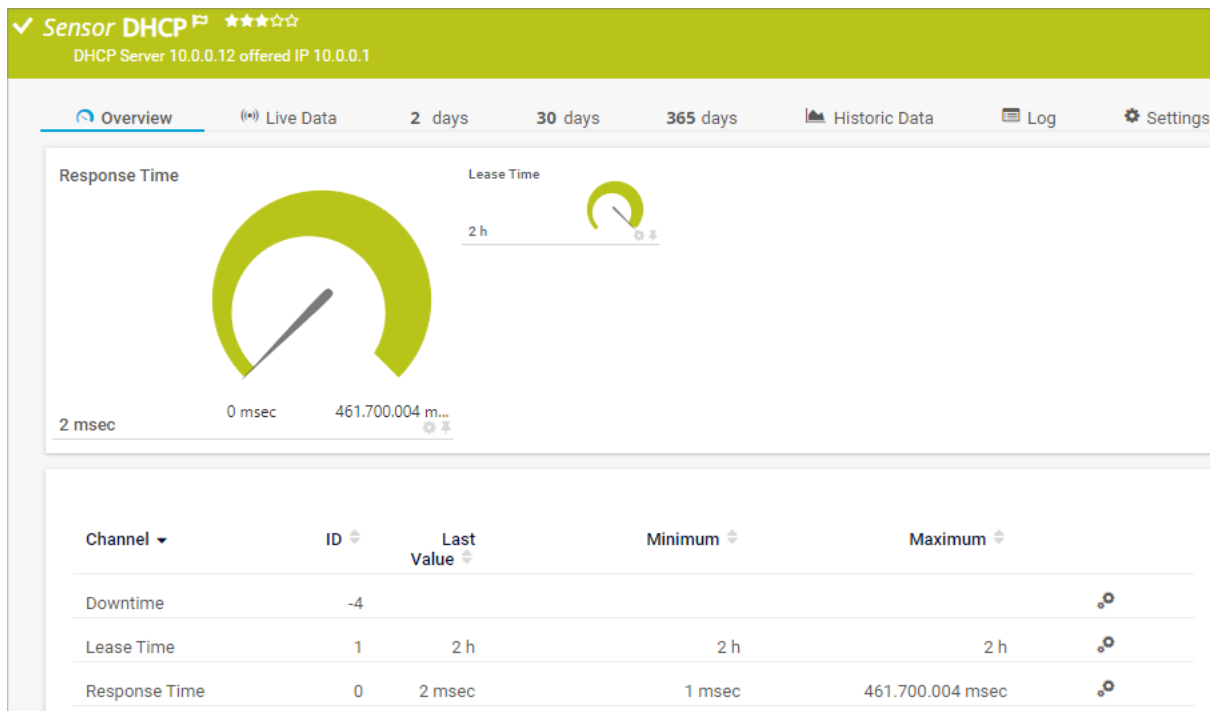
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.32 DHCP Sensor

The DHCP sensor monitors a Dynamic Host Configuration Protocol (DHCP) server. It sends a broadcast message to the network and waits for a DHCP server to respond.

i The sensor shows the address of the server and the offered IP address in the sensor message. You can check the server's response via a [regular expressions](#) ⁴⁴⁹⁷.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ⁸⁸³.



DHCP Sensor

Sensor in Other Languages

- Dutch: DHCP
- French: DHCP
- German: DHCP
- Japanese: DHCP
- Portuguese: DHCP
- Russian: DHCP
- Simplified Chinese: DHCP
- Spanish: DHCP

Remarks

- You can only create this sensor on a probe device, either a local probe device or a remote probe device.

- The probe device where you create a DHCP sensor must have a static IP address. It cannot get its IP address from DHCP because this can cause a DHCP failure that results in a severe issue for the probe device so that you risk losing monitoring data.
- Your DHCP sensors show a timeout error if no DHCP is available, or if you use more than 2 DHCP sensors per device.
- Adding a DHCP sensor on a link-local address is valid and is not prohibited. However, as this is a local IP address, the sensor does not receive any data and shows a timeout error.
- This sensor does not work if Probe Connection IPs is set to Local Probe only. For more information, see section [Core & Probes](#).
- This sensor has a low performance impact.
- See the Knowledge Base: [How can I monitor a DHCP server in a specific network if there are several DHCP networks?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

DHCP Specific

Setting	Description
Network Interfaces	<p>Select the network interfaces that you want to monitor. PRTG creates one sensor for each network interface that you select.</p> <p>i Choose the network card on the probe system that is used to send the broadcast message.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag X +

Priority ⓘ ★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dhcpsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

DHCP Specific

DHCP Specific

MAC Address ⓘ

Client IP Address ⓘ Do not check the IP address using a regular expression
 Check the IP address using a regular expression

Server IP Address ⓘ Do not check the IP address using a regular expression
 Check the IP address using a regular expression

Timeout (Sec.) ⓘ

DHCP Server Change ⓘ Ignore
 Write log entry

Offered IP Address Change ⓘ Ignore
 Write log entry

DHCP Specific

Setting	Description
MAC Address	Shows the MAC address of the network adapter that sends the broadcast message to the network. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Client IP Address	Specify if you want to check the returned client IP address with a regular expression (regex): <ul style="list-style-type: none"> ▪ Do not check the IP address using a regular expression: The IP address only appears in the sensor message without further processing. ▪ Check the IP address using a regular expression: Enter the regex that you want to use below.
Client IP Address Must Include (Down Status if Not Included)	This setting is only visible if you enable Check the IP address using a regular expression above. In the response of the DHCP server, search by using a regex. If the response for the client IP address does not contain this string, the sensor shows the Down status ¹⁹⁷ . ⓘ For example, enter <code>10\.\0\.\5\..*</code> to make sure that any answering DHCP server returns any client IP address starting with <code>10.0.5.</code> . If it does not, the sensor shows the Down status. Leave this field empty if you do not want to use it. ⓘ PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions ⁴⁴⁹⁷ .

Setting	Description
Client IP Address Must Not Include (Down Status if Included)	<p>This setting is only visible if you enable Check the IP address using a regular expression above. In the response of the DHCP server, search by using a regex. If the response for the client IP address contains this string, the sensor shows the Down status. See the example above. Leave this field empty if you do not want to use it.</p> <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p>
Server IP Address	<p>Specify if you want to check the returned server IP address with a regex:</p> <ul style="list-style-type: none"> Do not check the IP address using a regular expression: The IP address only appears in the sensor message without further processing. Check the IP address using a regular expression: Enter the regex that you want to use below.
Server IP Address Must Include (Down Status if Not Included)	<p>This setting is only visible if you enable Check the IP address using a regular expression above. In the response of the DHCP server, search by using a regex. If the response for the server IP address does not contain this string, the sensor shows the Down status. See the example above. Leave this field empty if you do not want to use it.</p> <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p>
Server IP Address Must Not Include (Down Status if Included)	<p>This setting is only visible if you enable Check the IP address using a regular expression above. In the response of the DHCP server, search by using a regex. If the response for the server IP address contains this string, the sensor shows the Down status. See the example above. Leave this field empty if you do not want to use it.</p> <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
DHCP Server Change	<p>If there is more than one DHCP server in the network that can respond to the broadcast message, the sensor can receive a response from a different DHCP server compared to the last scan of the sensor. In this case, PRTG can write an entry to the system logs²³⁷. Specify how PRTG handles DHCP server changes:</p> <ul style="list-style-type: none"> Ignore: Do not write a log entry if the DHCP server changes.

Setting	Description
	<ul style="list-style-type: none"> Write log entry: Write an entry to the system logs whenever the DHCP server changes between two sensor scans. <p>i Regardless of this setting, entries are always added to the sensor log.</p>
Offered IP Address Change	<p>If the IP address offered by the DHCP server changes between two sensor scans, PRTG can write an entry to the system logs^[237]. Specify how PRTG handles IP address changes:</p> <ul style="list-style-type: none"> Ignore: Do not write a log entry if the offered IP address changes. Write log entry: Write an entry to the system logs whenever the DHCP server offers a different IP address compared to the last sensor scan. <p>i Regardless of this setting, entries are always added to the sensor log.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Lease Time	The lease time reported by the server
Response Time	The response time in milliseconds (msec)

This channel is the primary channel by default.

More

KNOWLEDGE BASE

How can I monitor a DHCP server in a specific network if there are several DHCP networks?





- <https://kb.paessler.com/en/topic/64601>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

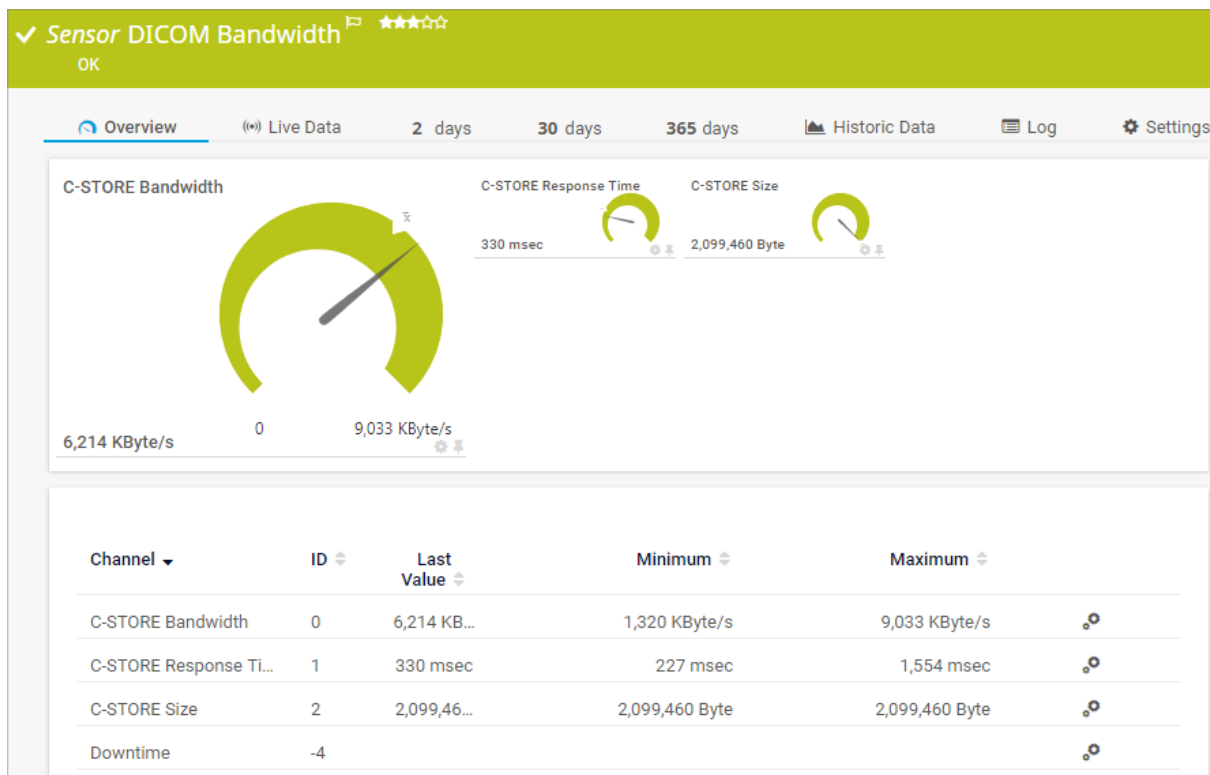
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.33 DICOM Bandwidth Sensor

The DICOM Bandwidth sensor monitors the bandwidth usage of a C-STORE request to a Digital Imaging and Communications in Medicine (DICOM) capable device. It sends one or more DICOM images and files that you have stored in a folder on a local disk or share and checks if the DICOM device can handle the C-STORE request.

i You can use the sensor to test your picture archiving and communication system (PACS), for example.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



DICOM Bandwidth Sensor



Sensor in Other Languages

- Dutch: DICOM Bandbreedte
- French: Bande passante DICOM
- German: DICOM-Bandbreite
- Japanese: DICOM 帯域幅
- Portuguese: Largura de banda do DICOM
- Russian: DICOM
- Simplified Chinese: DICOM 带宽
- Spanish: Anchura de banda de DICOM

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor supports the IPv6 protocol.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A list of tags with 'exampletag' selected and a plus sign to add more.
- Priority**: A star rating system showing 3 stars selected out of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree ^[183] , as well as in alarms ^[228] , logs ^[237] , notifications ^[403] , reports ^[406] , maps ^[405] , libraries ^[407] , and tickets ^[240] .

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dicom ▪ bandwidth
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

DICOM Connection

DICOM Connection

Calling Application Entity Title ⓘ	PRTG
Called Application Entity Title ⓘ	ABC
Port ⓘ	104
Timeout (Sec.) ⓘ	60

DICOM Connection



Setting	Description
Calling Application Entity Title	<p>Enter the Application Entity Title (AET) of PRTG to initialize a DICOM connection.</p> <p>ⓘ The AET is case sensitive and does not support special characters.</p>
Called Application Entity Title	<p>Enter the AET of the target system to initialize a DICOM connection.</p> <p>ⓘ The AET is case sensitive and does not support special characters.</p>
Port	<p>Enter the port of the DICOM interface to use for the connection.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>ⓘ If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

Bandwidth Settings

Bandwidth Settings

	File Path ⓘ C:\DICOM
--	----------------------

Bandwidth Settings

Setting	Description
File Path	<p>Enter the full path to the folder where you have stored your DICOM files and images (ending with <code>.dcm</code>). The sensor sends all files in the folder to the target DICOM device with each request. You can use any folder on a disk or share that the probe system has access to.</p> <p> For example, enter <code>C:\DICOM</code> to send files that are stored in a folder named <code>DICOM</code> on the probe system.</p> <p> The path must contain <code>*.dcm</code> files. Enter the path without a backslash (<code>\</code>) at the end.</p>



Debug Options

Debug Options

Result Handling 


Discard result
 Store result


Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the <code>\Logs\sensors</code> subfolder of the PRTG data directory on the probe system. The file names are <code>Result of Sensor [ID].txt</code>, <code>Result of Sensor [ID].Data.txt</code>, and <code>Result of Sensor [ID].log</code>. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display




Sensor Display

Primary Channel  Downtime


Graph Type 

Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel List

- ❗ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
C-STORE Bandwidth	The bandwidth usage of the sent files in bytes per second ❗ This channel is the primary channel by default.
C-STORE Response Time	The response time of the C-STORE request in milliseconds (msec)
C-STORE Size	The total size of the sent files in bytes
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

More

■ KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

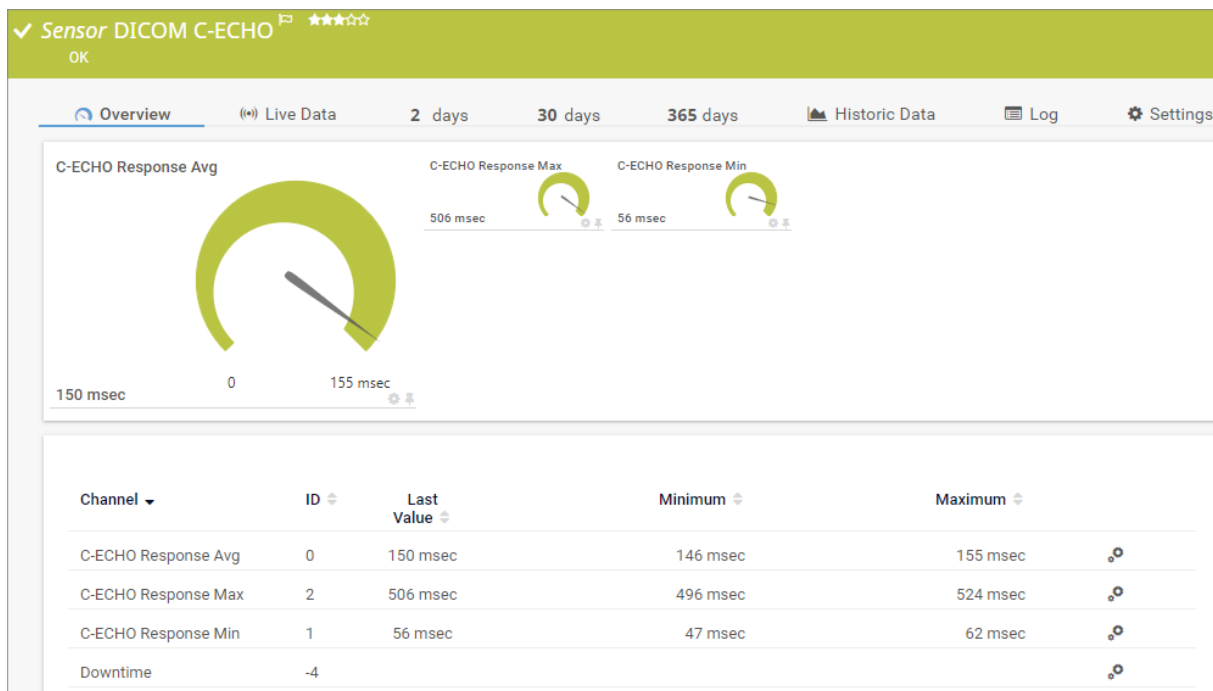
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.34 DICOM C-ECHO Sensor

The DICOM C-ECHO sensor monitors the availability of Digital Imaging and Communications in Medicine (DICOM) capable systems and devices by sending C-ECHO requests to the target system. C-ECHO is also known as DICOM-Ping.

i You can use the sensor to verify that the DICOM handshake is executed and that your target system is capable of answering DICOM messages.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



DICOM C-ECHO Sensor

Sensor in Other Languages



- Dutch: DICOM C-ECHO
- French: C-ECHO DICOM
- German: DICOM-C-ECHO
- Japanese: DICOM C-ECHO
- Portuguese: C-ECHO do DICOM
- Russian: DICOM C-ECHO
- Simplified Chinese: DICOM C-ECHO
- Spanish: C-ECHO DICOM

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.

- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor supports the IPv6 protocol.

Detailed Requirements

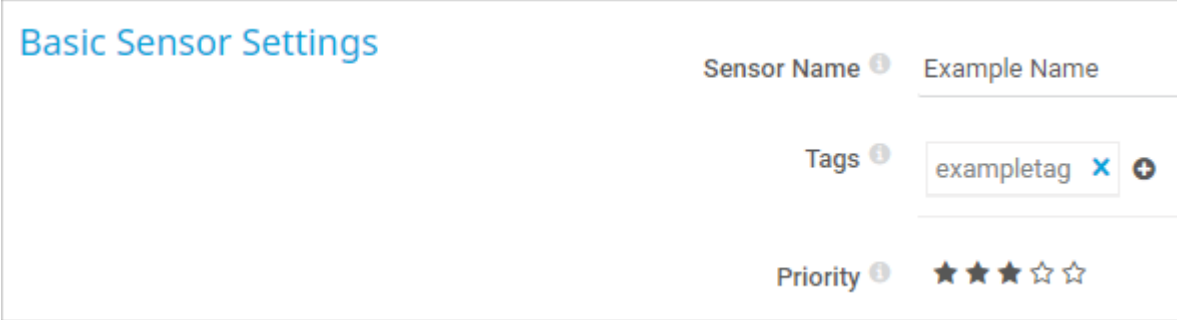
Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.


Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.



The screenshot shows the 'Basic Sensor Settings' dialog. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus icon, and a 'Priority' field with five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[4031], reports^[4069], maps^[4096], libraries^[4047], and tickets^[240].</p> <p> If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited . ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ dicom ▪ cecho ▪ ping
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

DICOM Connection

DICOM Connection	
Calling Application Entity Title ⓘ	PRTG
Called Application Entity Title ⓘ	ABC
Port ⓘ	104
Timeout (Sec.) ⓘ	60

DICOM Connection

Setting	Description
Calling Application Entity Title	<p>Enter the Application Entity Title (AET) of PRTG to initialize a DICOM connection.</p> <p>i The AET is case sensitive and does not support special characters.</p>
Called Application Entity Title	<p>Enter the AET of the target system to initialize a DICOM connection.</p> <p>i The AET is case sensitive and does not support special characters.</p>
Port	Enter the port of the DICOM interface to use for the connection.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

C-ECHO Settings

C-ECHO Settings

C-ECHO Count **i**

Ping Delay (ms) **i**

C-ECHO Settings

Setting	Description
C-ECHO Count	Enter the number of C-ECHO requests that the sensor sends in a row for one scanning interval. Enter an integer value. The default value is 5.
Ping Delay (ms)	Enter the time in milliseconds (ms) the sensor waits between two C-ECHO requests. Enter an integer value. The default value is 10.

Debug Options

Debug Options

Result Handling **i** Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

- Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
C-ECHO Response Avg	<p>The average response time of the C-ECHO request in milliseconds (msec)</p> <p> This channel is the primary channel by default.</p>
C-ECHO Response Max	The maximum response time of the C-ECHO request in msec
C-ECHO Response Min	The minimum response time of the C-ECHO request in msec

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

More

KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

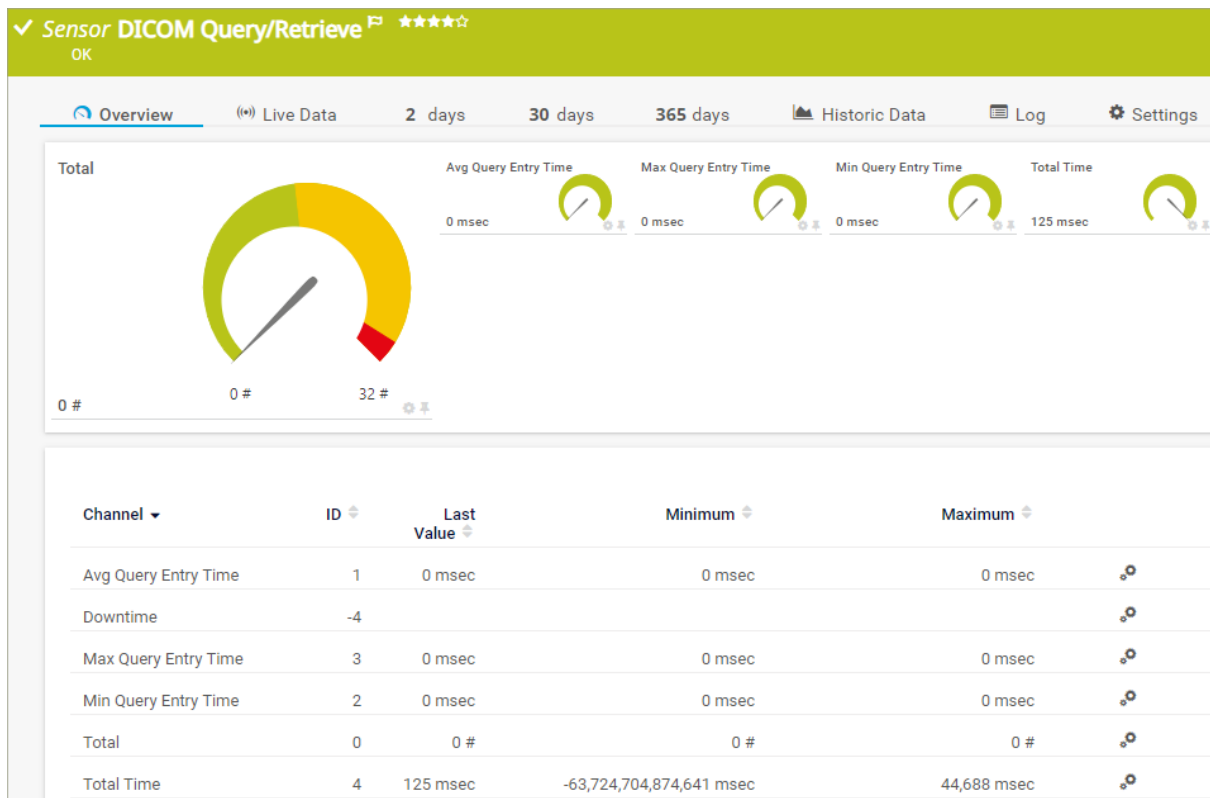
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.35 DICOM Query/Retrieve Sensor

The DICOM Query/Retrieve sensor monitors the C-FIND capability of Digital Imaging and Communications in Medicine (DICOM) capable systems and devices. It sends a C-FIND request or Modality Worklist (MWL) query to the target device and counts all found items.

i You can specify search levels to only count specific items.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



DICOM Query/Retrieve Sensor



Sensor in Other Languages

- Dutch: DICOM Query/Retrieve
- French: Requête/récupération de DICOM
- German: DICOM-Abfrage
- Japanese: DICOM クエリ/取得
- Portuguese: Consulta/recuperação do DICOM
- Russian: / DICOM
- Simplified Chinese: DICOM 查询/检索
- Spanish: Consulta/Recuperación DICOM

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor supports the IPv6 protocol.

Detailed Requirements

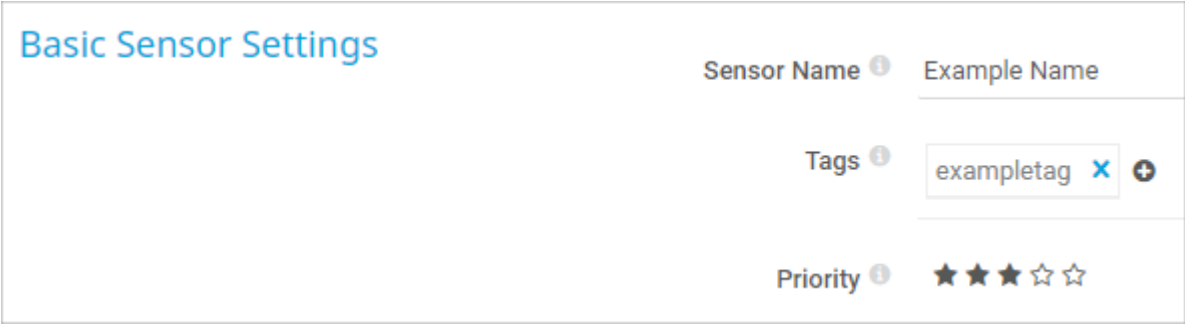
Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.



Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree ^[183] , as well as in alarms ^[228] , logs ^[237] , notifications ^[403] , reports ^[406] , maps ^[405] , libraries ^[407] , and tickets ^[240] .

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dicom ▪ query ▪ retrieve
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

DICOM Connection

DICOM Connection

Calling Application Entity Title ⓘ	PRTG
Called Application Entity Title ⓘ	ABC
Port ⓘ	104
Timeout (Sec.) ⓘ	60

DICOM Connection

Setting	Description
Calling Application Entity Title	Enter the Application Entity Title (AET) of PRTG to initialize a DICOM connection. ⓘ The AET is case sensitive and does not support special characters.
Called Application Entity Title	Enter the AET of the target system to initialize a DICOM connection. ⓘ The AET is case sensitive and does not support special characters.
Port	Enter the port of the DICOM interface to use for the connection.
Timeout (Sec.)	Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes). ⓘ If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.

Query/Retrieve Settings

Query/Retrieve Settings

C-FIND Level ⓘ	<input checked="" type="radio"/> Patient <input type="radio"/> Study <input type="radio"/> Series <input type="radio"/> Worklist
Search Key ⓘ	*

Query/Retrieve Settings

Setting	Description
C-FIND Level	<p>Define the search level of the C-FIND request:</p> <ul style="list-style-type: none"> ▪ Patient: Retrieve data from the patient column via C-FIND. Enter a search key below. ▪ Study: Retrieve data from the study column via C-FIND. Enter a search key and a modality below. ▪ Series: Retrieve data from the series column via C-FIND. Enter a search key and a modality below. ▪ Worklist: Use an MWL query to retrieve data from the worklist. Enter a filter field, a filter string, and a channel field below.
Search Key	<p>This setting is only visible if you select Patient, Study, or Series above. Enter a key that you want to search for, for example, an instance Unique Identifier (UID), series UID, patient UID, or enter an asterisk (*) to search for all items. Enter a string.</p>
Modality	<p>This setting is only visible if select Study or Series above. Enter a modality in short form that you want to search for, for example, CT, MRI, US, or enter an asterisk (*) to search for all modalities. Enter a string.</p>
Filter Field	<p>This setting is only visible if you select Worklist above. Define a field of the worklist that you want to filter for:</p> <ul style="list-style-type: none"> ▪ Station AET ▪ Station Name ▪ Modality
Filter String	<p>This setting is only visible if you select Worklist above. Enter a string that you want to filter for, for example, a station name, station AET, modality, or an asterisk (*) to filter for all items. Enter a string.</p>
Channel Field	<p>This setting is only visible if you select Worklist above. Define which field you want to use to name the channels:</p> <ul style="list-style-type: none"> ▪ Station AET ▪ Station Name ▪ Modality

Debug Options

Debug Options

Result Handling ⓘ
 Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display


Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None ▼

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Avg Query Entry Time	The average query entry time in milliseconds (msec)

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Max Query Entry Time	The maximum query entry time in msec
Min Query Entry Time	The minimum query entry time in msec
Total	The total number of items found i This channel is the primary channel by default.
Total Time	The total time of the C-FIND request or MWL query in msec

i The sensor also adds channels for the number of items in each field it finds.

More

KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

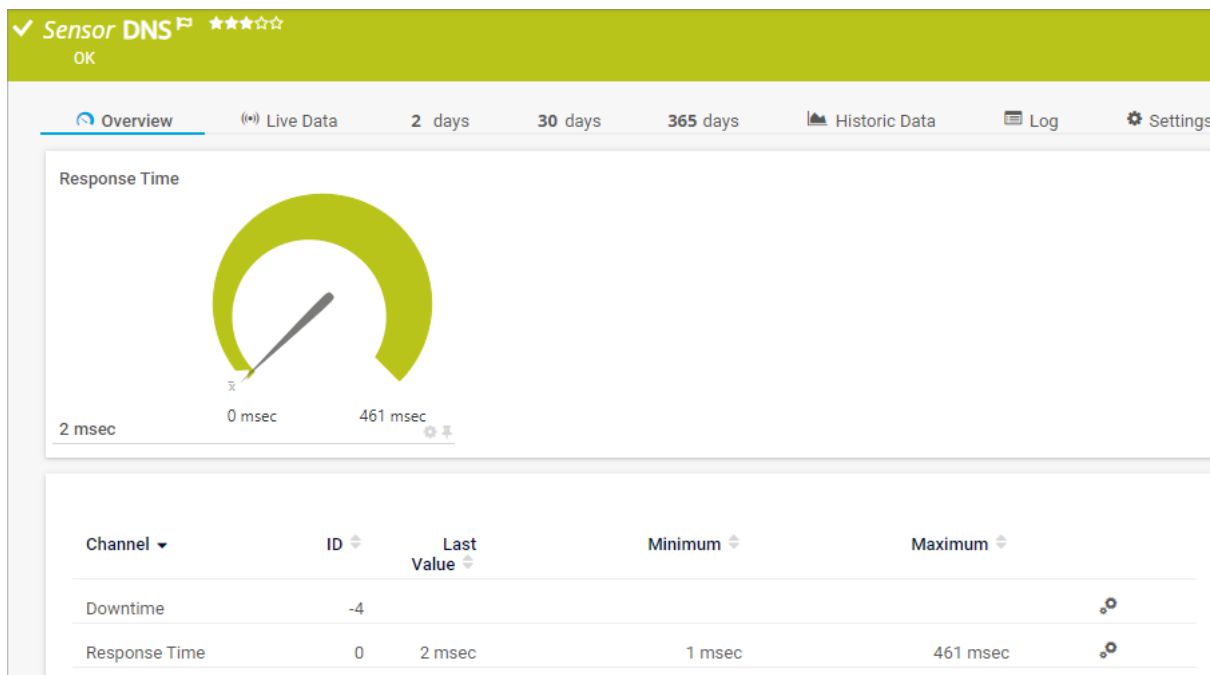
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.36 DNS Sensor

The DNS sensor monitors a Domain Name System (DNS) server. It resolves a domain name and compares it to a specific IP address. The sensor checks the answer section as well as the additional section, if one was sent.

i The sensor shows the Down [status](#)¹⁹⁷ if the DNS server does not correctly resolve a specified domain name.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)⁹²⁸.



DNS Sensor

Sensor in Other Languages

- Dutch: DNS
- French: DNS
- German: DNS
- Japanese: DNS
- Portuguese: DNS
- Russian: DNS
- Simplified Chinese: DNS
- Spanish: DNS

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

- If the address of the parent device is a fully qualified domain name (FQDN) or NetBIOS name, PRTG also includes the time it takes to resolve this address in the response time measurement.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dnssensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

DNS Specific

DNS Specific

Timeout (Sec.) ⓘ 5

Port ⓘ 53

Domain ⓘ example.com

Query Type ⓘ

- Host address IPv4 (A)
- Host address IPv6 (AAAA)
- Authoritative name server (NS)
- Start of a zone of authority marker (SOA)
- Domain name pointer (PTR)
- Mail exchange (MX)
- Canonical name for an alias (CNAME)

Check Result ⓘ

- Ignore result
- Check result

Result Handling ⓘ

- Discard result
- Store result

DNS Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p>

Setting	Description
	<p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
Port	<p>Enter the number of the port to which the sensor tries to connect. This must be the port that the parent device runs the DNS service on. The default port is 53.</p> <p>i We recommend that you use the default value.</p> <p>i The sensor connects to the IP address or the DNS name of the parent device^[446].</p>
Domain	<p>Enter the domain name that the sensor resolves using the DNS server in the parent device settings. You can enter an internet domain name (for example, example.com) or a DNS name in your internal network (such as computer-xyz), depending on the type of DNS server you monitor.</p> <p>i You can also enter an IP address but it might not work with certain query types.</p>
Query Type	<p>Select the query type that the sensor sends to the DNS server:</p> <ul style="list-style-type: none"> ▪ Host address IPv4 (A) ▪ Host address IPv6 (AAAA) ▪ Authoritative name server (NS) ▪ Start of a zone of authority marker (SOA) ▪ Domain name pointer (PTR) ▪ Mail exchange (MX) ▪ Canonical name for an alias (CNAME)
Check Result	<p>Define if the sensor checks the result from the DNS server:</p> <ul style="list-style-type: none"> ▪ Ignore result: Accept any valid answer from the DNS server. ▪ Check result: Check if the response contains certain strings. Define the values below.
Value	<p>This setting is only visible if you select Check result above. Enter elements that the response of the DNS server must contain. Enter each entry in one line. The result must contain at least one of the elements. If none of the elements matches the response, the sensor shows the Down status.</p> <p>For example, you can enter an IP address if your Domain field contains a host name. If the host name is resolved to the correct IP address, the sensor shows the Up status.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration^[4187] on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Response Time	<p>The response time in milliseconds (msec)</p> <p> This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

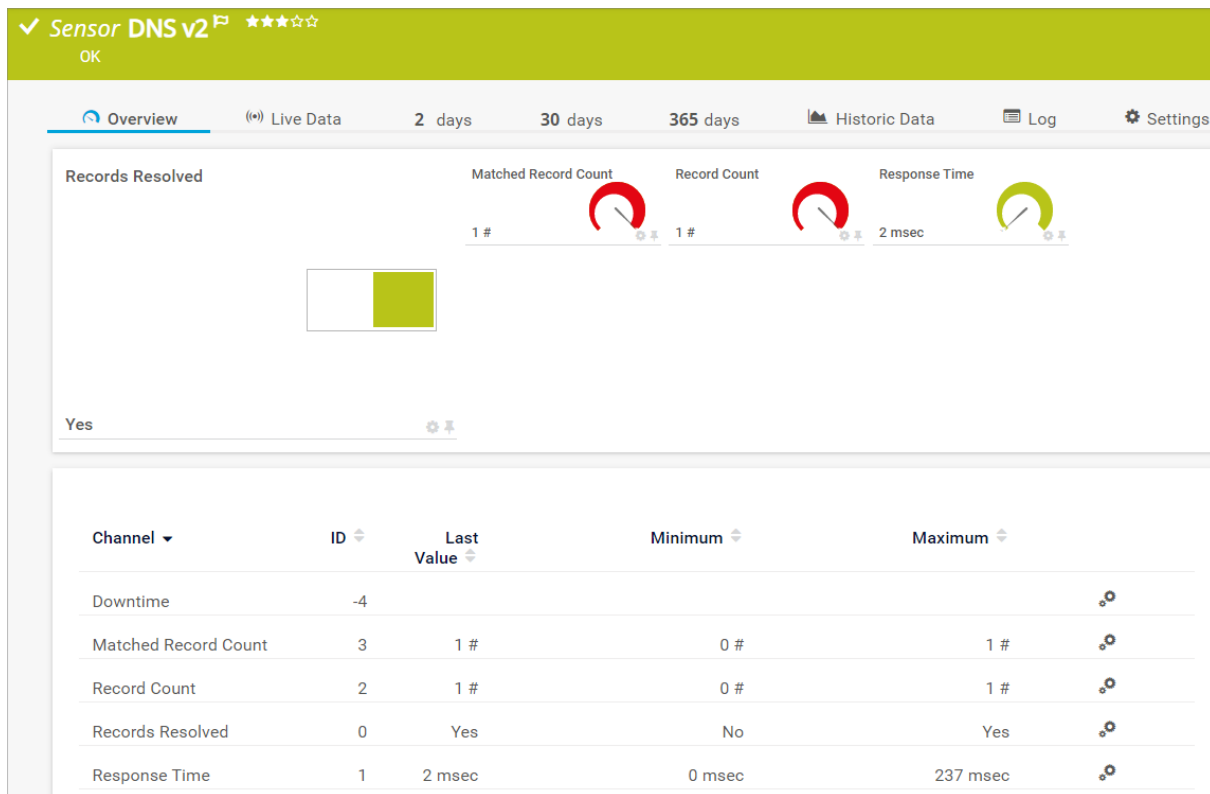
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.37 DNS v2 Sensor

The DNS v2 sensor monitors a Domain Name System (DNS) server, resolves domain name records, and compares them to a filter.

i The sensor can show the Down status if the DNS server does not correctly resolve a specified domain name

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



DNS v2 Sensor

Sensor in Other Languages

- Dutch: DNS v2
- French: DNS v2
- German: DNS v2
- Japanese: DNS v2
- Portuguese: DNS v2
- Russian: DNS v2
- Simplified Chinese: DNS v2
- Spanish: DNS v2

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A list of tags with "exampletag" selected. There are "X" and "+" icons next to the tag.
- Priority:** A star rating system showing 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p>

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dns ▪ dnssensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

DNS Sensor Specific

DNS Sensor Specific

Domain Name ⓘ company.com

Query Type ⓘ

- Host address IPv4 (A) (default)
- Host address IPv6 (AAAA)
- Canonical name for an alias (CNAME)
- Mail exchange (MX)
- Naming authority pointer (NAPTR)
- Authoritative name server (NS)
- PTR resource record (PTR)
- Start of a zone of authority marker (SOA)
- Text resource record (TXT)
- Any (depends on the DNS server configuration)

Timeout (Sec.) ⓘ 30

Filter Usage ⓘ

- Do not use a filter (default)
- Use a filter

Filter Value ⓘ 127.0.0.1

Port ⓘ 53

DNS Sensor Specific

Setting	Description
Domain Name	<p>Enter the DNS name to resolve.</p> <p>i If you use the query type PTR resource record (PTR), enter a proper reverse DNS representation of the IP address. For example, 1.0.0.127.in-addr.arpa.</p>
Query Type	<p>Select the query type that the sensor sends to the DNS server:</p> <ul style="list-style-type: none"> ▪ Host address IPv4 (A) (default) ▪ Host address IPv6 (AAAA) ▪ Canonical name for an alias (CNAME) ▪ Mail exchange (MX) ▪ Naming authority pointer (NAPTR) ▪ Authoritative name server (NS) ▪ PTR resource record (PTR) ▪ Start of a zone of authority marker (SOA) ▪ Text resource record (TXT) ▪ Any (depends on the DNS server configuration)
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p> <p>i The timeout value must be shorter than the scanning interval of the sensor.</p>
Filter Usage	<p>Define if the sensor checks for a specific filter value in the response.</p> <ul style="list-style-type: none"> ▪ Do not use a filter (default): Do not check the response. ▪ Use a filter: Use a filter to check the response. Define the filter value below.
Filter Value	<p>This setting is only visible if you select Filter Usage above. Enter the filter value. For an A record, the filter value can be an IP address like 127.0.0.1, for example. The filter value can also contain a wildcard (*) to match any content, for example 127.*.1.</p>
Port	<p>Enter the number of the port to which the sensor tries to connect. This must be the port on which the parent device answers queries. The default port is 53.</p>

Setting	Description
	<p>i We recommend that you use the default value.</p> <p>i The sensor connects to the IP address or the DNS name of the parent device^[446].</p>

Sensor Display

Sensor Display

Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Debug Options

Debug Options

Result Handling ⓘ


Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#)^[142].



Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

 inherit from  Root

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails.

Setting	Description
	<p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None



Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>


Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Matched Record Count	The number of matched records (if you use a filter)
Record Count	The number of records
Records Resolved	<p>If records were resolved</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Yes ▪ Down status: No
Response Time	<p>The response time in milliseconds (msec)</p> <p>i This channel is the primary channel by default.</p>

More





■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

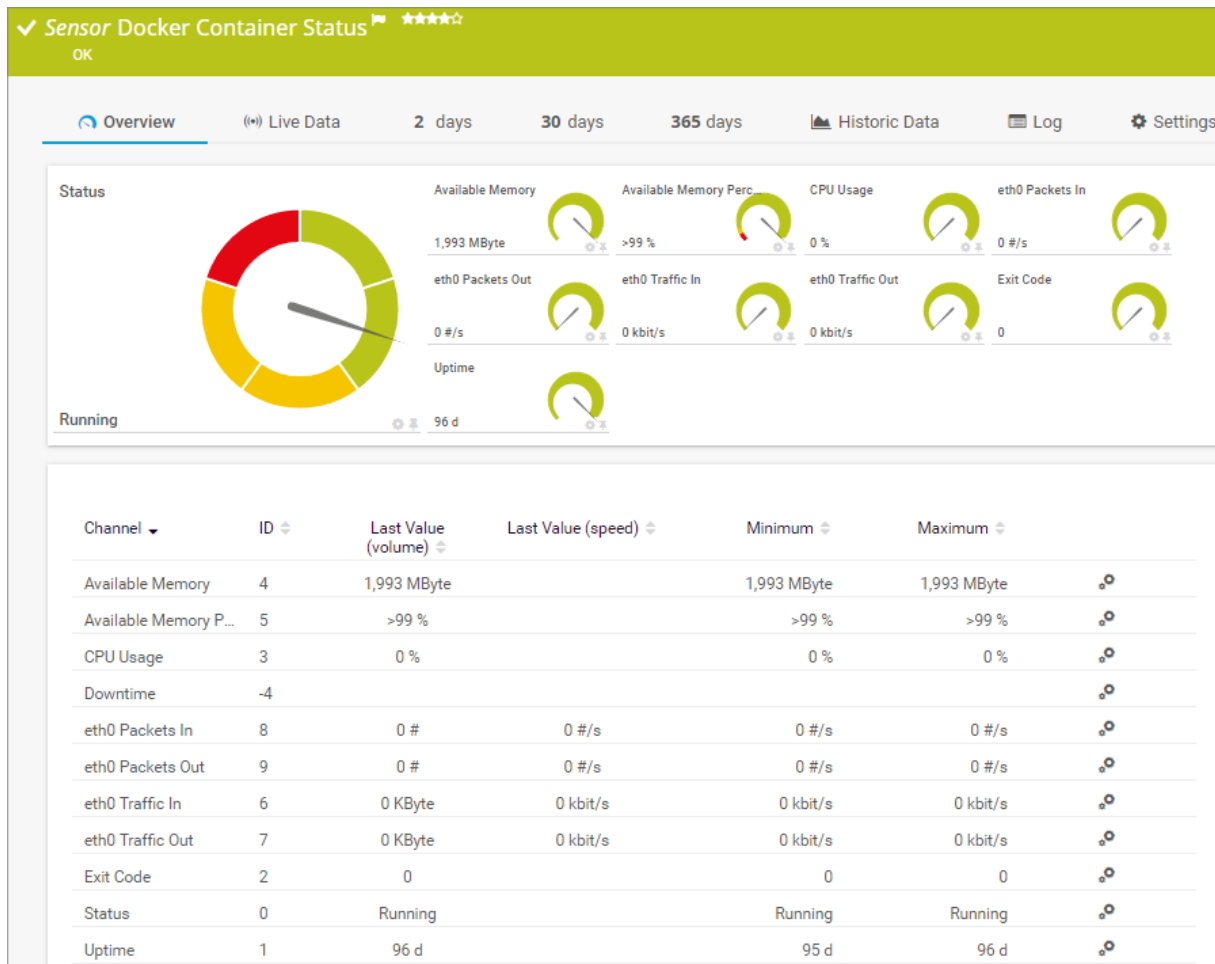
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.38 Docker Container Status Sensor

The Docker Container Status sensor monitors the status of a Docker container.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)⁹⁵⁴.



Docker Container Status Sensor

Sensor in Other Languages

- Dutch: Docker Container Status
- French: État de conteneur Docker
- German: Docker-Container-Zustand
- Japanese: Docker コンテナの状態
- Portuguese: Status do Container Docker
- Russian: Docker
- Simplified Chinese: Docker 容器状态
- Spanish: Estado de contenedor de Docker.

Remarks

- The parent device of this sensor must be the Docker machine on which the container that you want to monitor runs.
- You need to provide certificates and private keys to monitor Docker with this sensor. For details, see the Knowledge Base: [How can I create private key and certificate for the Docker sensor?](#)
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG requires an authentication with a certificate and a private key before you can add this sensor. Provide Port (usually 2376), Private Key, and Certificate in the dialog box that appears and click OK. PRTG can now scan Docker for containers.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Docker Specific

Setting	Description
Container	<p>Select the Docker containers that you want to monitor. PRTG creates one sensor for each container that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag ✕ +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ docker ▪ dockercontainer
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★★★★☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Docker Credentials

Docker Credentials

Port ⓘ 2376

Private Key ⓘ

Certificate ⓘ

Docker Credentials

Setting	Description
Port	<p>Enter the number of the port to which this sensor connects. The default port on which Docker over Transport Layer Security (TLS) runs is 2376.</p>
Private Key	<p>Provide the private key for the connection to Docker. If you have already created a key, you can use it here. Otherwise, create a certificate on Docker first.</p> <p>Open the key with a text editor, copy everything that the file includes, and paste it here. Usually, the key starts with <code>-----BEGIN RSA PRIVATE KEY-----</code> and ends with <code>-----END RSA PRIVATE KEY-----</code></p> <p>■ For more information on how to create a Docker certificate, see the Knowledge Base: How can I create private key and certificate for the Docker sensor?</p>
Certificate	<p>Provide the certificate for the connection to Docker. If you have already created a certificate, you can use it here. Otherwise, create a certificate on Docker first.</p> <p>Open the certificate with a text editor, copy everything that the file includes, and paste it here. Usually, the certificate starts with <code>-----BEGIN CERTIFICATE-----</code> and ends with <code>-----END CERTIFICATE-----</code></p> <p>■ For more information on how to create a Docker certificate, see the Knowledge Base: How can I create private key and certificate for the Docker sensor?</p>

Setting	Description
	<p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from Root

Channel Unit Types ⓘ

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Available Memory	The available memory in bytes
Available Memory Percent	The available memory in percent

Channel	Description
CPU Usage	The CPU usage in percent
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Eth0 Packets In	The number of ingoing packets per second
Eth0 Packets Out	The number of outgoing packets per second
Eth0 Traffic In	The incoming traffic in bytes per second
Eth0 Traffic Out	The outgoing traffic in bytes per second
Exit Code	The exit code
Status	<p>The overall status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Create, Running ▪ Warning status: Paused, Restarting ▪ Down status: Exited <p> This channel is the primary channel by default.</p>
Uptime	The uptime

More

■ KNOWLEDGE BASE

How can I create private key and certificate for the Docker sensor?

- <https://kb.paessler.com/en/topic/67250>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

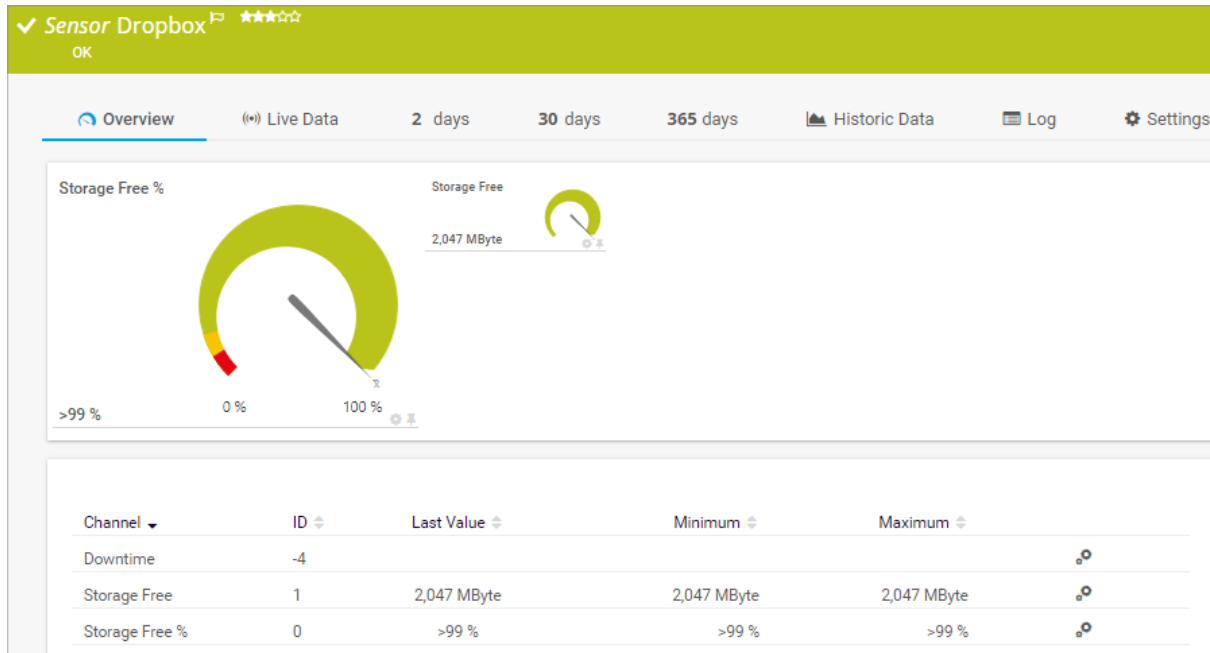
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.8.39 Dropbox Sensor

The Dropbox sensor monitors a Dropbox account via the Dropbox application programming interface (API) and Open Authorization 2 (OAuth2).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)⁹⁶⁷.



Dropbox Sensor

Sensor in Other Languages

- Dutch: Dropbox
- French: Dropbox
- German: Dropbox
- Japanese: Dropbox
- Portuguese: Dropbox
- Russian: Dropbox
- Simplified Chinese: Dropbox
- Spanish: Dropbox

Remarks

- The minimum scanning interval for this sensor is 30 minutes.
- For details about OAuth2 authentication, see section [Authentication via OAuth2](#)⁹⁶⁶.
- This sensor has a low performance impact.

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG requires OAuth2 authorization before you can add this sensor. Provide the required credentials in the dialog box that appears.

Dropbox Credentials

This sensor uses OAuth2 authentication to get access to your Dropbox account.

■ For details about this authentication approach, see section [Authentication via OAuth2](#) ⁹⁶⁶.

Dropbox Credentials

Setting	Description
OAuth URL	Click Get Access Code to connect this sensor to your Dropbox account via OAuth2. This is necessary to allow the sensor to query data from Dropbox. A new browser window appears. Follow the steps in the window and confirm the permission for PRTG to connect to your Dropbox account. Copy the OAuth code you get and paste it into the OAuth Code field below.
OAuth Code	Paste the access code that you receive after completing the authorization process for PRTG in your Dropbox account.

Setting	Description
	<p>i It is mandatory to connect this sensor to your Dropbox account to create this sensor. Complete the OAuth approach first to get the OAuth code.</p> <p>Click OK to define the sensor settings.</p>


Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.


The screenshot shows the 'Basic Sensor Settings' interface. It includes a title 'Basic Sensor Settings' in blue. Below the title are three settings: 'Sensor Name' with a value of 'Example Name', 'Tags' with a value of 'exampletag' and a plus sign to add more, and 'Priority' with a value of 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[3977]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

i This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#)^[4187] settings are not available for this sensor.

Scanning Interval

 inherit from  Root

Scanning Interval **i** 60 seconds

If a Sensor Query Fails **i** Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>i The minimum scanning interval for this sensor is 30 minutes.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails.

Setting	Description
	<p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** None



Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>


Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Authentication via OAuth2


 This sensor uses the OAuth2 security protocol to access the account from which you want to retrieve and monitor data. OAuth2 enables you to grant access to the target account without sharing your password with PRTG. The authorization approach of PRTG using OAuth2 works as follows.

1. Authorization Request

First, you have to request authorization for this sensor to access service resources from your account. For this purpose, you are asked to get an access code for this sensor in the Add Sensor dialog. Click Get Access Code to start the authorization process using OAuth2. A new browser window opens on the authorization server of the target service.

2. Verifying Identity

This new window contains a login form for your account that you want to monitor. Log in to your account using your credentials for this service to authenticate your identity. This is a common login to your account on the target server so PRTG does not see your password. The service forwards you to the authorization page and asks you to permit PRTG to access the data in your account.


 If you are already logged in to the service with a user account, you do not have to enter credentials in this step and get directly to the access permission page.

3. Authorizing PRTG

Permit PRTG to access information on your account. Note that this permission holds only for this specific sensor, not for other sensors of this type or PRTG as a whole. For each sensor of this type you add, you have to confirm the access permission anew. You can change the account permissions at any time in your account at the target service.

4. Getting Authorization Code

Permitting PRTG to access your account data forwards you to a page where the service provides an authorization code. Copy this code and switch back to the Add Sensor dialog in PRTG.

 The code is only valid for a short period of time and expires after a few minutes. You can use a particular code only once.

5. Providing Authorization Code

Paste the authorization code into the OAuth Code field and complete the Add Sensor dialog. You do not have to go through further configuration steps manually. The sensor automatically accomplishes the following steps.

6. Requesting Access Token

After receiving the authorization code, PRTG requests an access token from the API of the target service. For this purpose, PRTG transmits the authorization code together with several authentication details. The API checks if the authorization is valid and returns the access token to PRTG. Access tokens are specific for one account and one application (here: PRTG). The authorization process to read data from your account is now complete.

7. Retrieving Data

The sensor transmits the access token with each sensor scan in the defined scanning interval to authenticate with your account. It is not necessary to use the original account credentials anew. The used tokens refresh automatically from time to time.

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Storage Free	The free storage in bytes
Storage Free %	The free storage in percent i This channel is the primary channel by default.

More





■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.40 Enterprise Virtual Array Sensor

The Enterprise Virtual Array sensor monitors an HPE Storage Enterprise Virtual Array (EVA) via the `sssu.exe` from [HPE P6000 Command View Software](#) (previously known as HP Command View EVA Software).

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)⁹⁷⁸.

Sensor in Other Languages

- Dutch: Enterprise Virtual Array
- French: Enterprise Virtual Array
- German: Enterprise Virtual Array
- Japanese: Enterprise Virtual Array
- Portuguese: Enterprise Virtual Array
- Russian: Enterprise Virtual Array
- Simplified Chinese: Enterprise Virtual Array
- Spanish: Enterprise Virtual Array


Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- You must explicitly specify the credentials for the EVA in the sensor settings.
- This sensor [requires](#)⁹⁶⁸ the HPE P6000 Command View Software (previously known as HP Command View EVA Software) on the probe system, or the alternative described in the Knowledge Base: [Do I really have to install the whole Command View on the probe to use the EVA sensor?](#)
- This sensor supports the IPv6 protocol.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)⁴⁴⁸⁵.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
HPE 6000 Command View Software	This sensor needs the HPE P6000 Command View Software (previously known as HP Command View EVA Software) installed on the probe system.

Requirement	Description
	<p> If you do not want to install the whole command view tool, you can use a different option. For details, see the Knowledge Base: Do I really have to install the whole Command View on the probe to use the EVA sensor?</p>

Add Sensor

The [Add Sensor](#)³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.


PRTG performs a meta-scan before you can add this sensor and requires basic information in advance. Provide the required information in the dialog box that appears. PRTG then recognizes all items that are available for monitoring based on your input.

 The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

EVA Credentials

Setting	Description
Scanning Mode	<p>Specify the depth of the meta-scan:</p> <ul style="list-style-type: none"> ▪ Basic mode: We recommend that you use this scanning mode. Various modules of your EVA are available for monitoring. ▪ Detailed mode: PRTG scans for each disk of your EVA. It lists every disk in the module selection.

EVA Settings

Setting	Description
Modules	<p>Select the modules that you want to monitor. PRTG creates one sensor for each module that you select.</p> <p> Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ eva
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

EVA Credentials

Setting	Description
User Name	Enter the user name for the EVA.
Password	Enter the password for the EVA.

EVA Settings

Setting	Description
Module	Shows the module that this sensor monitors. You can edit this setting if, for example, you rename the module or move it to a different folder. This way, PRTG can find the module again and you do not lose the monitoring history.
System	Shows the system of the module that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Module Type	Shows the type of the module that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Description	Shows the description of the module that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. i In a cluster, PRTG stores the result in the PRTG data directory of the master node.

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none">▪ Bandwidth▪ Memory▪ Disk▪ File▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

The sensor can show the status of several HPE EVA modules:

- System controllers
- Enclosures
- Disks
- Disk groups
- Folders
- Hosts
- Snapshots
- Data replication
- Cabinets
- If the devices have measuring tools for fans and temperature, the sensor displays corresponding data as well.

For these EVA components, this sensor can show the following:

- Operational status
- Predicted failures
- Accessible media
- Allocation in percent
- Availability for VRaids in bytes
- Exaggerated bytes

- Group host access
- Number of grouped and ungrouped disks
- Age of snapshots
- License status

More

KNOWLEDGE BASE

Do I really have to install the whole Command View on the probe to use the EVA sensor?





- <https://kb.paessler.com/en/topic/55983>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

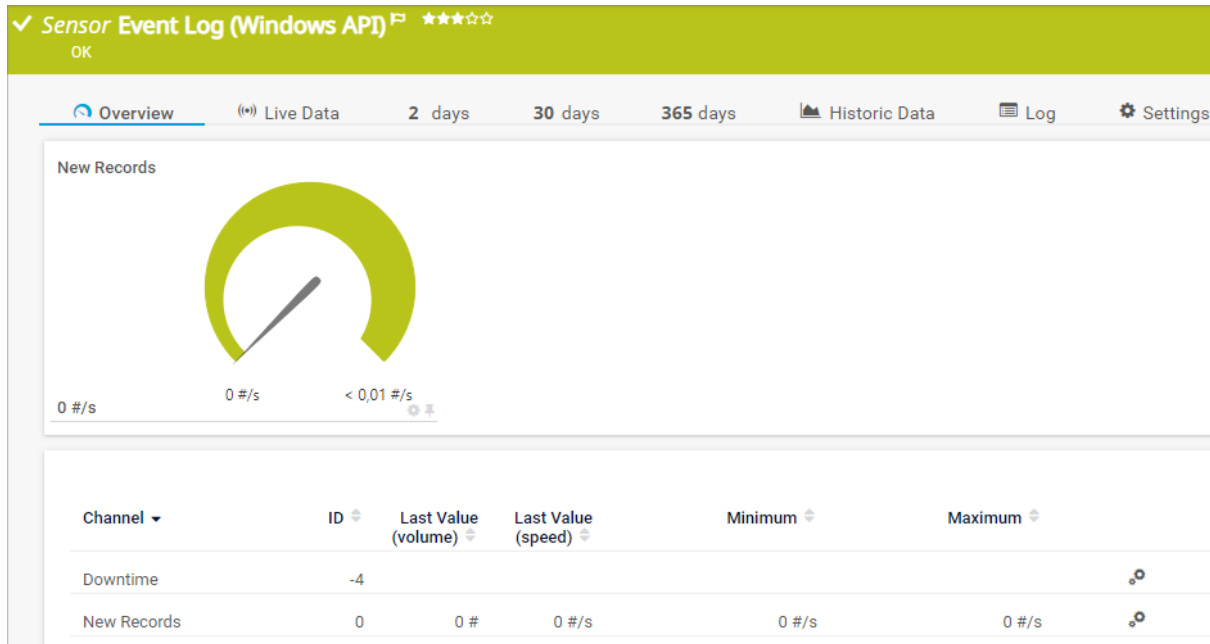
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.41 Event Log (Windows API) Sensor

The Event Log (Windows API) sensor monitors Event Log entries via the Windows application programming interface (API).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Event Log (Windows API) Sensor

Sensor in Other Languages

- Dutch: Event Log (Windows API)
- French: Log des événements (Windows API)
- German: Ereignisprotokoll (Windows API)
- Japanese: イベントログ (Windows API)
- Portuguese: Log de Eventos do Windows (API)
- Russian: (API Windows)
- Simplified Chinese: 事件日志 (Windows API)
- Spanish: Registro de eventos (Windows API)

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [My Event Log sensor ignores changes in the event log. What can I do?](#)
- See the Knowledge Base: [How can I configure sensors using speed limits to keep the status for more than one interval?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiapieventlogsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Windows API Event Log Specific

Windows API Event Log Specific

Log File **i**

- Application
- System
- Security
- Directory Service
- DNS Server
- File Replication Service

Windows API Event Log Specific

Setting	Description
Log File	<p>Specify the log file that this sensor monitors. The Windows event log provides several log files:</p> <ul style="list-style-type: none"> ▪ Application ▪ System ▪ Security ▪ Directory Service ▪ DNS Server ▪ File Replication Service

Filter Event Log Entries

Filter Event Log Entries

Event Type ⓘ

Any

Error

Warning

Information

Security Audit Success

Security Audit Failure

Filter by Source ⓘ

Off

On

Filter by ID ⓘ

Off

On

Filter by Category ⓘ

Off

On

Filter by User ⓘ

Off

On

Filter by Computer ⓘ

Off

On






Filter by Message ⓘ

Off

On

Filter Event Log Entries

Setting	Description
Event Type	<p>Specify the type of event that this sensor processes:</p> <ul style="list-style-type: none"> ▪ Any ▪ Error ▪ Warning ▪ Information ▪ Security Audit Success ▪ Security Audit Failure

Setting	Description
	<p> The sensor cannot process other event types.</p>
Filter by Source	<p>Filter all events for a certain event source:</p> <ul style="list-style-type: none"> ▪ Off: Do not filter by event source. ▪ On: Filter by event source. <ul style="list-style-type: none">  If you enable this option, this sensor only processes messages that match the value that you define below.
Filter Type	<p>This setting is only visible if you enable Filter by Source above. Select the filter type:</p> <ul style="list-style-type: none"> ▪ Include filter: Include the specified value and disregard all other values. ▪ Exclude filter: Exclude the specified value and regard all other values.
Match String (Event Source)	<p>This setting is only visible if you enable Filter by Source above. Enter an event source that you want to filter for. Depending on the kind of filter, the sensor either processes the event source (Include filter option) or it does not process it (Exclude filter option). Enter a string.</p>
Filter by ID	<p>Filter all events for a certain event ID:</p> <ul style="list-style-type: none"> ▪ Off: Do not filter by event ID. ▪ On: Filter by event ID. <ul style="list-style-type: none">  If you enable this option, this sensor only processes messages that match the value that you define below.
Filter Type	<p>This setting is only visible if ID filtering is On above. Select a filter type:</p> <ul style="list-style-type: none"> ▪ Include filter: Include the specified value and disregard all other values. ▪ Exclude filter: Exclude the specified value and regard all other values.
Match Values (Event ID)	<p>This setting is only visible if you enable Filter by ID above. Enter an event ID that you want to filter for. Depending on the kind of filter, the sensor either processes the event ID (Include filter option) or it does not process it (Exclude filter option).</p> <p> The Event Log (Windows API) supports more than one event ID. You can enter a comma-separated list of event IDs to filter for more than one ID. For example, 1100,4627,4747,4884,5050,6422.</p>
Filter by Category	<p>Filter all events for a certain event category:</p> <ul style="list-style-type: none"> ▪ Off: Do not filter by event category. ▪ On: Filter by event category. <ul style="list-style-type: none">  If you enable this option, this sensor only processes messages that match the value that you define below.

Setting	Description
Filter Type	<p>This setting is only visible if you enable Filter by Category above. Select a filter type:</p> <ul style="list-style-type: none"> ▪ Include filter: Include the specified value and disregard all other values. ▪ Exclude filter: Exclude the specified value and regard all other values.
Match String (Event Category)	<p>This setting is only visible if you enable Filter by Category above. Enter a category that you want to filter for. Depending on the kind of filter, the sensor either processes the event category (Include filter option) or it does not process it (Exclude filter option). Enter a string.</p>
Filter by User	<p>Filter all received events for a certain event user:</p> <ul style="list-style-type: none"> ▪ Off: Do not filter by event user. ▪ On: Filter by event user. <ul style="list-style-type: none"> ⓘ If you enable this option, this sensor only processes messages that match the value that you define below.
Filter Type	<p>This setting is only visible if you enable Filter by User above. Select a filter type:</p> <ul style="list-style-type: none"> ▪ Include filter: Include the specified value and disregard all other values. ▪ Exclude filter: Exclude the specified value and regard all other values.
Match String (Event User)	<p>This setting is only visible if you enable Filter by User above. Enter a user name that you want to filter for. Depending on the kind of filter, the sensor either processes the event user (Include filter option) or it does not process it (Exclude filter option). Enter a string.</p>
Filter by Computer	<p>Filter all received events for a certain event computer:</p> <ul style="list-style-type: none"> ▪ Off: Do not filter by event computer. ▪ On: Filter by event computer. <ul style="list-style-type: none"> ⓘ If you enable this option, this sensor only processes messages that match the value that you define below.
Filter Type	<p>This setting is only visible if you enable Filter by Computer above. Select a filter type:</p> <ul style="list-style-type: none"> ▪ Include filter: Include the specified value and disregard all other values. ▪ Exclude filter: Exclude the specified value and regard all other values.
Match String (Event Computer)	<p>This setting is only visible if you enable Filter by Computer above. Enter a computer name that you want to filter for. Depending on the kind of filter, the sensor either processes the event computer (Include filter option) or it does not process it (Exclude filter option). Enter a string.</p>

Setting	Description
Filter by Message	<p>Filter all received events for a certain event message:</p> <ul style="list-style-type: none"> Off: Do not filter by event message. On: Filter by event message. <ul style="list-style-type: none"> i If you enable this option, this sensor only processes messages that match the value that you define below.
Filter Type	<p>This setting is only visible if you enable Filter by Message above. Select a filter type:</p> <ul style="list-style-type: none"> Include filter: Include the specified value and disregard all other values. Exclude filter: Exclude the specified value and regard all other values.
Match String (Event Message)	<p>This setting is only visible if message filtering is On above. Enter a message that you want to filter for. Depending on the kind of filter, the sensor either processes the event message (Include filter option) or it does not process it (Exclude filter option). Enter a string.</p> <p>i You must use the percent sign (%) as wildcard for any or no character if you want to check if the string is part of the message. Otherwise, the whole event message must match the string. For example, you can enter %RAS% for any event source that contains the string RAS.</p>


Sensor Display


Sensor Display

Primary Channel **i** Downtime


Graph Type **i**
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel.

Setting	Description
Stack Unit	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic.  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷). <p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent


Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.


Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².



Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
New Records	The number of new records per second  This channel is the primary channel by default.

More

KNOWLEDGE BASE

My Event Log sensor ignores changes in the event log. What can I do?

- <https://kb.paessler.com/en/topic/59803>

How can I configure sensors using speed limits to keep the status for more than one interval?





- <https://kb.paessler.com/en/topic/73212>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

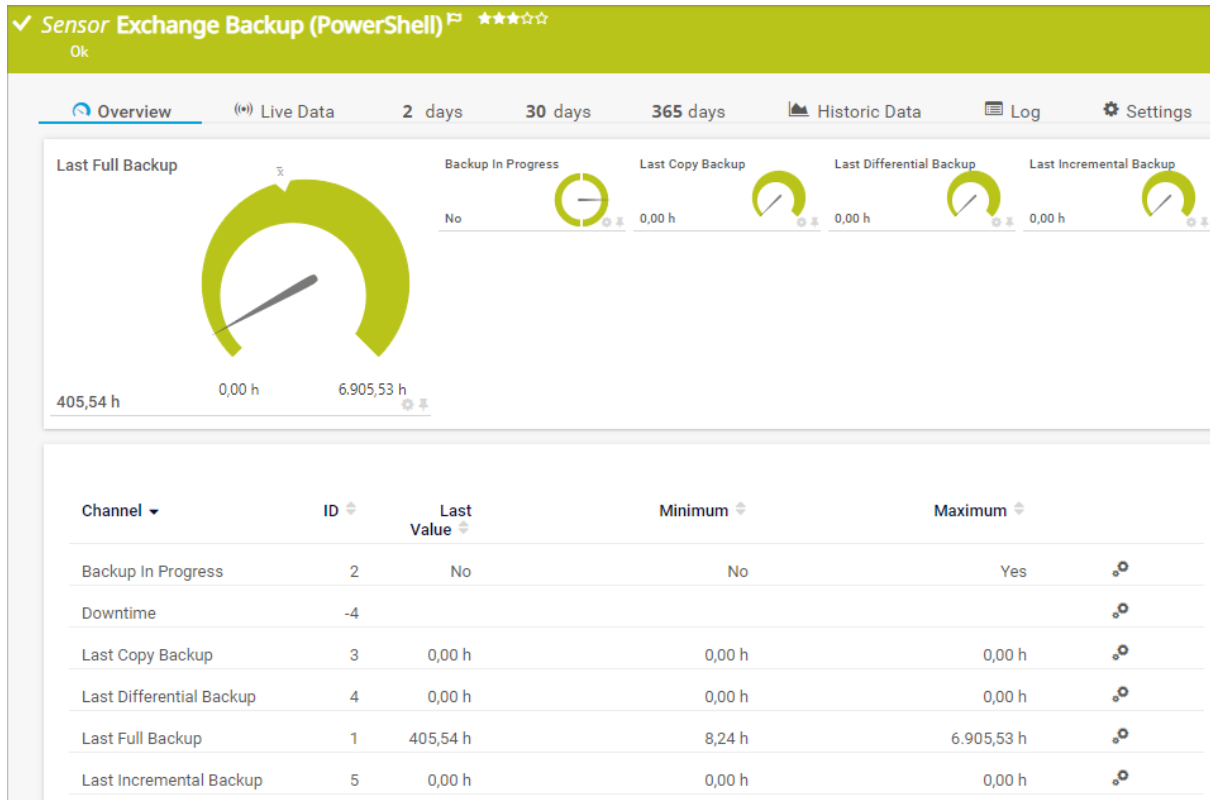
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.42 Exchange Backup (PowerShell) Sensor

The Exchange Backup (PowerShell) sensor monitors backups of an Exchange server via Remote PowerShell.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Exchange Backup (PowerShell) Sensor

Sensor in Other Languages

- Dutch: Exchange Backup (PowerShell)
- French: Sauvegarde Exchange (PowerShell)
- German: Exchange-Sicherung (PowerShell)
- Japanese: Exchange バックアップ (PowerShell)
- Portuguese: Backup do Exchange (PowerShell)
- Russian: Exchange (PowerShell)
- Simplified Chinese: Exchange 备份 (PowerShell)
- Spanish: Copia de seguridad de Exchange (PowerShell)

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.

- The parent device for this sensor must be the Exchange server (version 2010 or higher) that hosts the database that you want to monitor.
 - This sensor requires Remote PowerShell and Remote Exchange Management Shell on the target servers and PowerShell 2.0 on the probe system.
 - This sensor requires the fully qualified domain name (FQDN) of the Exchange server in the [settings of the parent device](#)^[447].
 - This sensor requires .NET 4.7.2 or later on the probe system.
 - This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
 - This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)^[448].
 - See the Knowledge Base: [Where can I find more information about PowerShell sensors?](#)
- ☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Remote PowerShell and Remote Exchange Management Shell	<p>This sensor uses PowerShell commands. To monitor Exchange servers with this sensor, you have to enable Remote PowerShell and Remote Exchange Management Shell on the target servers that you want to monitor. Also ensure you have installed PowerShell 2.0 or later on the probe system.</p> <p>i In larger environments, the default memory limit for the remote shell might be insufficient. This might result in the error message The WSMAN provider host process did not return a proper response. In this case, increase the memory limit for Remote PowerShell.</p> <p>■ For more information, see the Knowledge Base: How do I enable and use remote commands in Windows PowerShell? and How can I increase memory for Remote PowerShell?</p>
FQDN	<p>To connect to Exchange servers, this sensor needs the FQDN. In the device settings^[447] of the Exchange server, provide the FQDN instead of the IP address.</p> <p>■ For more information, see the Knowledge Base: I have problems with the PowerShell Exchange sensors, what can I do?</p>
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i If the framework is missing, you cannot create this sensor.</p> <p>■ For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Sensor Settings

Setting	Description
Databases	<p>Select the databases that you want to monitor. PRTG creates one sensor for each database that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has a title bar 'Basic Sensor Settings'. Below the title bar, there are three rows of settings:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A text input field containing 'exampletag', with a blue 'x' icon to the right and a plus sign icon to the left of the input field.
- Priority**: A row of five star icons, with the first three stars filled and the last two empty.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited . ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ exchange ▪ powershell ▪ backup
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings

Database ⓘ Database 1

Result Handling ⓘ Discard result
 Store result

Sensor Settings

Setting	Description
Database	Shows the name of the database that this sensor monitors.

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display

Primary Channel **i** Downtime


Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p> i You can change the available intervals in the system administration on PRTG on premises installations. </p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p> i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply. </p> <p> i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply. </p> <p> i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply. </p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

- ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Backup In Progress	<p>If a backup is running</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: No, Yes
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Last Copy Backup	<p>The time since the last copy backup</p>

Channel	Description
Last Differential Backup	The time since the last differential backup
Last Full Backup	The time since the last full backup  This channel is the primary channel by default.
Last Incremental Backup	The time since the last incremental backup

More

KNOWLEDGE BASE

Where can I find more information about PowerShell sensors?

- <https://kb.paessler.com/en/topic/62451>

How do I enable and use remote commands in Windows PowerShell?

- <https://kb.paessler.com/en/topic/44453>

How can I increase memory for Remote PowerShell?

- <https://kb.paessler.com/en/topic/61922>

I have problems with the PowerShell Exchange sensors, what can I do?

- <https://kb.paessler.com/en/topic/54353>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

My PowerShell sensor returns an error message. What can I do?





- <https://kb.paessler.com/en/topic/59473>

I get the error "WinRM cannot process the request" when I try to use a PowerShell sensor

- <https://kb.paessler.com/en/topic/59745>

Sensor Settings Overview

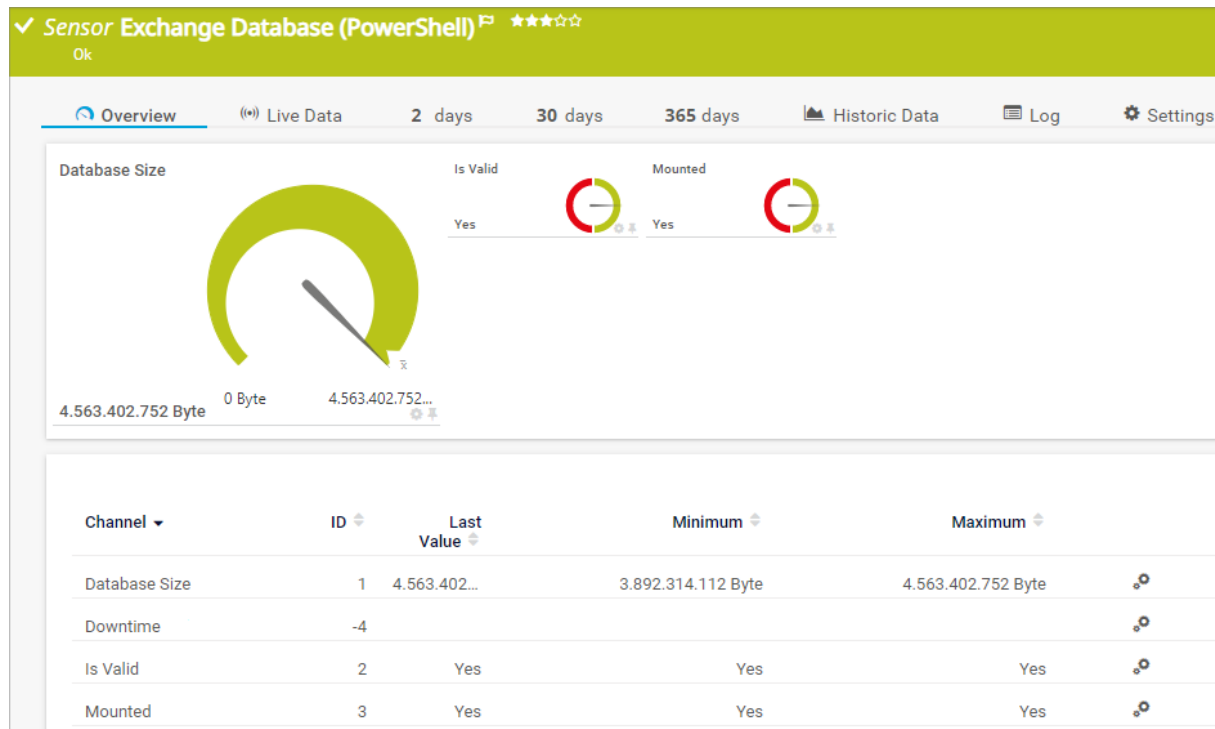
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.43 Exchange Database (PowerShell) Sensor

The Exchange Database (PowerShell) sensor monitors database information of an Exchange server via Remote PowerShell.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Exchange Database (PowerShell) Sensor

Sensor in Other Languages

- Dutch: Exchange Database (PowerShell)
- French: Base de données Exchange (PowerShell)
- German: Exchange-Datenbank (PowerShell)
- Japanese: Exchange データベース (PowerShell)
- Portuguese: Banco de dados do Exchange (PowerShell)
- Russian: Exchange (PowerShell)
- Simplified Chinese: Exchange 数据库 (PowerShell)
- Spanish: Base de datos de Exchange (PowerShell)

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- The parent device for this sensor must be the Exchange server (version 2010 or higher) that hosts the database that you want to monitor.

- This sensor requires Remote PowerShell and Remote Exchange Management Shell on the target servers and PowerShell 2.0 on the probe system.
- This sensor requires the fully qualified domain name (FQDN) of the Exchange server in the [settings of the parent device](#)^[447].
- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- See the Knowledge Base: [Where can I find more information about PowerShell sensors?](#)
- See the Knowledge Base: [How can I monitor additional values of Exchange databases?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Remote PowerShell and Remote Exchange Management Shell	<p>This sensor uses PowerShell commands. To monitor Exchange servers with this sensor, you have to enable Remote PowerShell and Remote Exchange Management Shell on the target servers that you want to monitor. Also ensure you have installed PowerShell 2.0 or later on the probe system.</p> <p>i In larger environments, the default memory limit for the remote shell might be insufficient. This might result in the error message The WSMAN provider host process did not return a proper response. In this case, increase the memory limit for Remote PowerShell.</p> <p>■ For more information, see the Knowledge Base: How do I enable and use remote commands in Windows PowerShell? and How can I increase memory for Remote PowerShell?</p>
FQDN	<p>To connect to Exchange servers, this sensor needs the FQDN. In the device settings^[447] of the Exchange server, provide the FQDN instead of the IP address.</p> <p>■ For more information, see the Knowledge Base: I have problems with the PowerShell Exchange sensors, what can I do?</p>
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i If the framework is missing, you cannot create this sensor.</p> <p>■ For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Sensor Settings

Setting	Description
Databases	<p>Select the databases that you want to monitor. PRTG creates one sensor for each database that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has a title bar 'Basic Sensor Settings'. Below the title bar, there are three rows of settings:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A text input field containing 'exampletag' with a blue 'x' icon to the right and a plus sign icon to the left of the input field.
- Priority**: A row of five star icons, with the first three stars filled and the last two empty.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited. ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ exchange ▪ powershell ▪ database
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings

Database ⓘ *Mailbox Database*

AutoRemount Database ⓘ Try to remount
 Do not try to remount, report the current reading

Result Handling ⓘ Discard result
 Store result

Sensor Settings

Setting	Description
Database	Shows the name of the database that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
AutoRemount Database	Define if you want the sensor to try to automatically remount the database if it is unmounted: <ul style="list-style-type: none"> ▪ Try to remount ▪ Do not try to remount, report the current reading
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

Sensor Display


Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p> <ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic.  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None ▼

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].


Access Rights

inherit from  Root

User Group Access [?]	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management^[153].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#)^[142].

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Database Size	<p>The size of the database in bytes</p> <p>ⓘ This channel is the primary channel by default.</p>

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Is Valid	If the database is recognized as valid <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Yes ▪ Down status: Critical Issue, Major Issue, Non Recoverable
Mounted	If the database is mounted <ul style="list-style-type: none"> ▪ Up status: Yes ▪ Down status: No

More

■ KNOWLEDGE BASE

Where can I find more information about PowerShell sensors?

- <https://kb.paessler.com/en/topic/62451>

How can I monitor additional values of Exchange databases?

- <https://kb.paessler.com/en/topic/63229>

How do I enable and use remote commands in Windows PowerShell?

- <https://kb.paessler.com/en/topic/44453>

How can I increase memory for Remote PowerShell?

- <https://kb.paessler.com/en/topic/61922>

I have problems with the PowerShell Exchange sensors, what can I do?

- <https://kb.paessler.com/en/topic/54353>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

My PowerShell sensor returns an error message. What can I do?





- <https://kb.paessler.com/en/topic/59473>

I get the error "WinRM cannot process the request" when I try to use a PowerShell sensor

- <https://kb.paessler.com/en/topic/59745>

Sensor Settings Overview

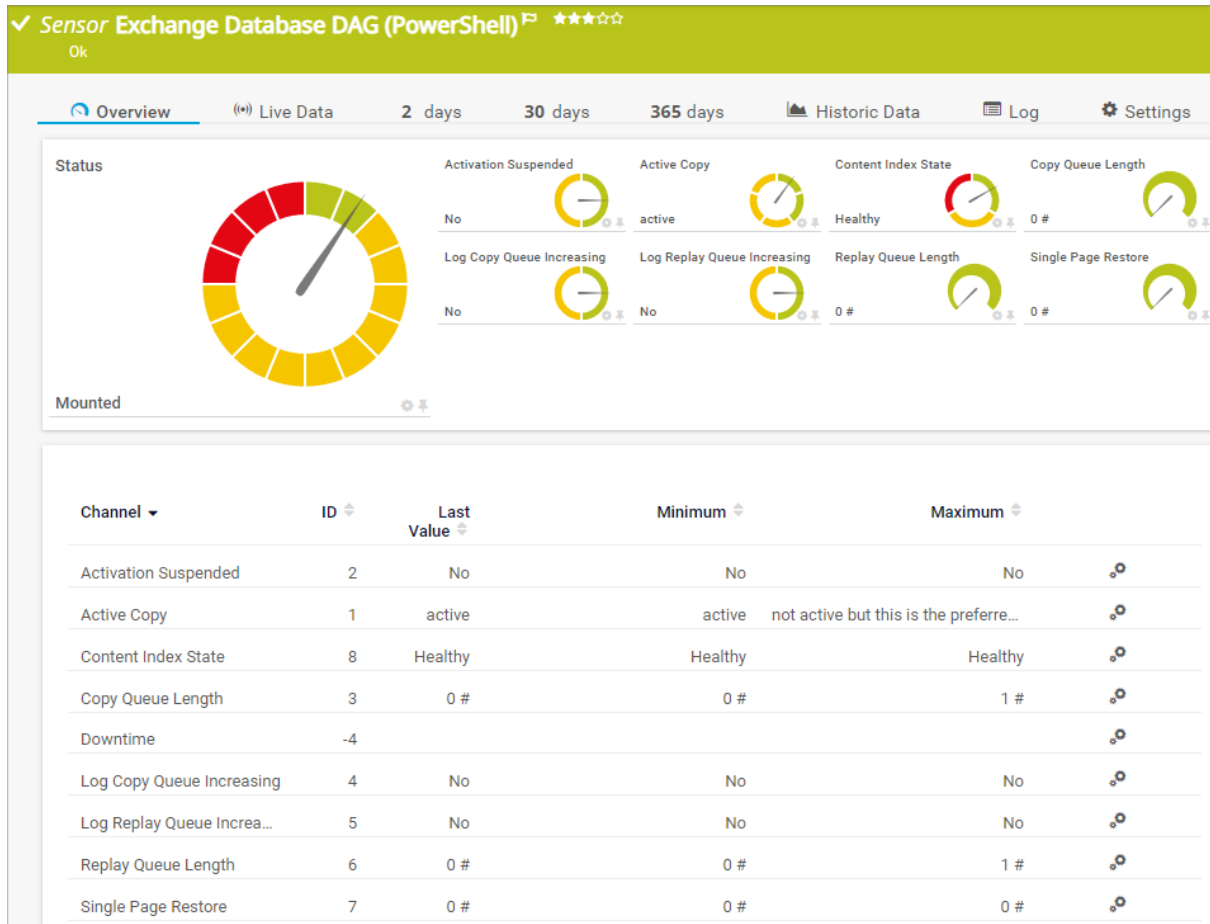
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.44 Exchange Database DAG (PowerShell) Sensor

The Exchange Database DAG (PowerShell) sensor monitors the Database Availability Group (DAG) status of a database on an Exchange server via Remote PowerShell.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Exchange Database DAG (PowerShell) Sensor

Sensor in Other Languages

- Dutch: Exchange Database DAG (PowerShell)
- French: DAG de base de données Exchange (PowerShell)
- German: Exchange-Datenbank DAG (PowerShell)
- Japanese: Exchange データベース DAG(PowerShell)
- Portuguese: DAG do banco de dados do Exchange (PowerShell)
- Russian: DAG Exchange (PowerShell)
- Simplified Chinese: Exchange 数据库 DAG (PowerShell)
- Spanish: Base de datos DAG de Exchange (PowerShell)

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- The parent device for this sensor must be the Exchange server (version 2010 or higher) that hosts the database that you want to monitor.
- The Exchange server must be part of a valid DAG. See also the Knowledge Base: [Why doesn't PRTG show available databases when adding the Exchange Database DAG \(PowerShell\) sensor?](#)
- This sensor requires Remote PowerShell and Remote Exchange Management Shell on the target servers and PowerShell 2.0 on the probe system.
- This sensor requires the fully qualified domain name (FQDN) of the Exchange server in the [settings of the parent device](#)^[447].
- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- Make sure that the Exchange database is mounted on the target device. Otherwise, you might not be able to properly add the sensor.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)^[448].
- See the Knowledge Base: [Where can I find more information about PowerShell sensors?](#)
- See the Knowledge Base: [How can I monitor additional values of Exchange databases?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Remote PowerShell and Remote Exchange Management Shell	<p>This sensor uses PowerShell commands. To monitor Exchange servers with this sensor, you have to enable Remote PowerShell and Remote Exchange Management Shell on the target servers that you want to monitor. Also ensure you have installed PowerShell 2.0 or later on the probe system.</p> <p>i In larger environments, the default memory limit for the remote shell might be insufficient. This might result in the error message The WSMAN provider host process did not return a proper response. In this case, increase the memory limit for Remote PowerShell.</p> <p>■ For more information, see the Knowledge Base: How do I enable and use remote commands in Windows PowerShell? and How can I increase memory for Remote PowerShell?</p>

Requirement	Description
FQDN	<p>To connect to Exchange servers, this sensor needs the FQDN. In the device settings⁴⁴⁷ of the Exchange server, provide the FQDN instead of the IP address.</p> <ul style="list-style-type: none"> For more information, see the Knowledge Base: I have problems with the PowerShell Exchange sensors, what can I do?
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <ul style="list-style-type: none"> i If the framework is missing, you cannot create this sensor. For more information, see the Knowledge Base: Which .NET version does PRTG require?

Add Sensor

The [Add Sensor](#)³⁶⁷ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Sensor Settings

Setting	Description
Databases	<p>Select the databases that you want to monitor. PRTG creates one sensor for each database that you select.</p> <ul style="list-style-type: none"> i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag X +

Priority ⓘ ★ ★ ★ ☆ ☆

Example Name

exampletag X +

★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p> ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p> ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p> ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p> ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ exchange ▪ powershell ▪ database ▪ dag
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings

Database ⓘ Database 1

Result Handling ⓘ Discard result
 Store result

Sensor Settings

Setting	Description
Database	Shows the name of the database that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. i In a cluster, PRTG stores the result in the PRTG data directory of the master node.




Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule **None**


Maintenance Window **Do not set up a one-time maintenance window**
 Set up a one-time maintenance window

Dependency Type **Use parent**
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

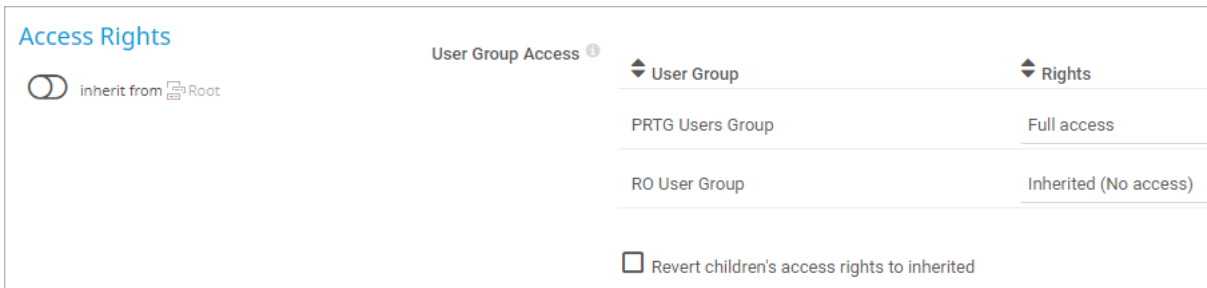
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights


Click  to interrupt the [inheritance](#) [142].



User Group Access	User Group	Rights
<input checked="" type="checkbox"/> inherit from  Root	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups [429] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management [158].</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Activation Suspended	<p>If the activation is suspended</p> <ul style="list-style-type: none"> Up status¹⁹⁷: No Warning status: Yes
Active Copy	<p>The copy status</p> <ul style="list-style-type: none"> Up status: Active, Not Active Warning status: Active But Not On The Preferred Server, Could Not Read Activation Preference, Not Active But This Is The Preferred Server
Content Index State	<p>The content index state</p> <ul style="list-style-type: none"> Up status: Healthy, Not Supported In 2019 Warning status: Crawling Down status: Error
Copy Queue Length	<p>The number of items in the copy queue</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Log Copy Queue Increasing	<p>If the log copy queue is increasing</p> <ul style="list-style-type: none"> Up status: No Warning status: Yes
Log Replay Queue Increasing	<p>If the log replay queue is increasing</p> <ul style="list-style-type: none"> Up status: No Warning status: Yes
Replay Queue Length	<p>The number of items in the replay queue</p>
Single Page Restore	<p>The number of single page restores</p>
Status	<p>The overall DAG status</p> <ul style="list-style-type: none"> Up status: Healthy, Mounted

Channel	Description
	<ul style="list-style-type: none">Warning status: Disconnected and Healthy, Disconnected and Resynchronizing, Dismounting, Initializing, Mounting, Resynchronizing, Seeding, SeedingSource, SinglePageRestore, SuspendedDown status: Dismounted, Failed, Failed and Suspended, Service Down <p> This channel is the primary channel by default.</p>

More

KNOWLEDGE BASE

Why doesn't PRTG show available databases when adding the Exchange Database DAG (PowerShell) sensor?

- <https://kb.paessler.com/en/topic/82242>

Where can I find more information about PowerShell sensors?

- <https://kb.paessler.com/en/topic/62451>

How can I monitor additional values of Exchange databases?

- <https://kb.paessler.com/en/topic/63229>

How do I enable and use remote commands in Windows PowerShell?

- <https://kb.paessler.com/en/topic/44453>

How can I increase memory for Remote PowerShell?

- <https://kb.paessler.com/en/topic/61922>

I have problems with the PowerShell Exchange sensors, what can I do?

- <https://kb.paessler.com/en/topic/54353>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

My PowerShell sensor returns an error message. What can I do?

- <https://kb.paessler.com/en/topic/59473>




I get the error "WinRM cannot process the request" when I try to use a PowerShell sensor

- <https://kb.paessler.com/en/topic/59745>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

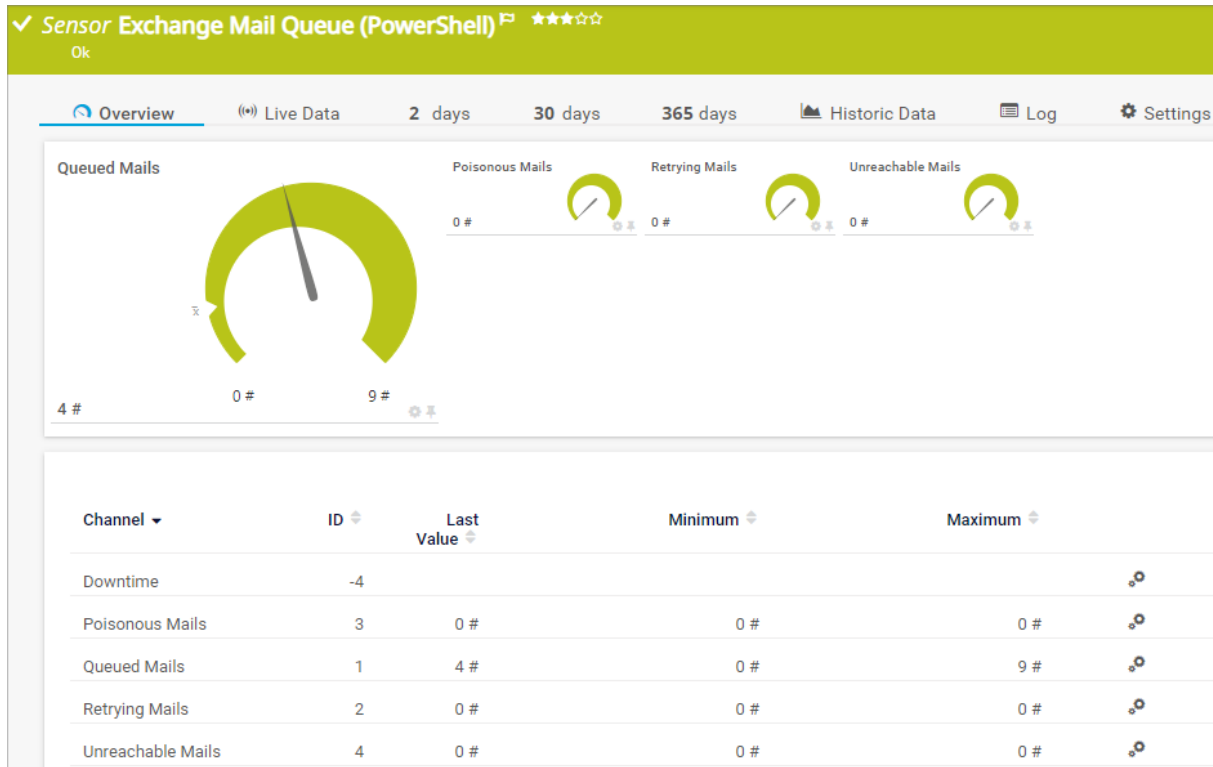
- [List of Available Sensor Types](#) 

- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.45 Exchange Mail Queue (PowerShell) Sensor

The Exchange Mail Queue (PowerShell) sensor monitors the number of items in the outgoing mail queue of an Exchange server via Remote PowerShell.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Exchange Mail Queue (PowerShell) Sensor

Sensor in Other Languages

- Dutch: Exchange Mail Wachtrij (PowerShell)
- French: File d'attente de messagerie Exchange (PowerShell)
- German: Exchange-Nachrichtenwarteschlange (PowerShell)
- Japanese: Exchange Mail キュー (PowerShell)
- Portuguese: Fila de e-mails do Exchange (PowerShell)
- Russian: Exchange (PowerShell)
- Simplified Chinese: Exchange 邮件队列 (PowerShell)
- Spanish: Cola de correo de Exchange (PowerShell)

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.

- The parent device for this sensor must be the Exchange server (version 2010 or higher) that hosts the database that you want to monitor.
- This sensor requires Remote PowerShell and Remote Exchange Management Shell on the target servers and PowerShell 2.0 on the probe system.
- This sensor requires the fully qualified domain name (FQDN) of the Exchange server in the [settings of the parent device](#)^[447].
- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- See the Knowledge Base: [Where can I find more information about PowerShell sensors?](#)
- See the Knowledge Base: [What types of Exchange transport queues are there?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Remote PowerShell and Remote Exchange Management Shell	<p>This sensor uses PowerShell commands. To monitor Exchange servers with this sensor, you have to enable Remote PowerShell and Remote Exchange Management Shell on the target servers that you want to monitor. Also ensure you have installed PowerShell 2.0 or later on the probe system.</p> <p>i In larger environments, the default memory limit for the remote shell might be insufficient. This might result in the error message The WSMAN provider host process did not return a proper response. In this case, increase the memory limit for Remote PowerShell.</p> <p>■ For more information, see the Knowledge Base: How do I enable and use remote commands in Windows PowerShell? and How can I increase memory for Remote PowerShell?</p>
FQDN	<p>To connect to Exchange servers, this sensor needs the FQDN. In the device settings^[447] of the Exchange server, provide the FQDN instead of the IP address.</p> <p>■ For more information, see the Knowledge Base: I have problems with the PowerShell Exchange sensors, what can I do?</p>
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i If the framework is missing, you cannot create this sensor.</p> <p>■ For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Sensor Settings

Setting	Description
Hub Transport Server or Edge-Server	<p>Select the roles that you want to monitor. PRTG creates one sensor for each role that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited . ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ exchange ▪ powershell ▪ mailqueue
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings

Result Handling ⓘ

Discard result
 Store result

Sensor Settings

Setting	Description
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result.

Setting	Description
	<ul style="list-style-type: none"> Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel Downtime

Graph Type
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click  to interrupt the inheritance.


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Poisonous Mails	The number of poisonous mails
Queued Mails	The number of queued mails

This channel is the primary channel by default.

Channel	Description
Retrying Mails	The number of retrying mails
Unreachable Mails	The number of unreachable mails

More

■ KNOWLEDGE BASE

Where can I find more information about PowerShell sensors?

- <https://kb.paessler.com/en/topic/62451>

What types of Exchange transport queues are there?

- <https://kb.paessler.com/en/topic/55413>

How do I enable and use remote commands in Windows PowerShell?

- <https://kb.paessler.com/en/topic/44453>

How can I increase memory for Remote PowerShell?

- <https://kb.paessler.com/en/topic/61922>

I have problems with the PowerShell Exchange sensors, what can I do?

- <https://kb.paessler.com/en/topic/54353>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

My PowerShell sensor returns an error message. What can I do?





- <https://kb.paessler.com/en/topic/59473>

I get the error "WinRM cannot process the request" when I try to use a PowerShell sensor

- <https://kb.paessler.com/en/topic/59745>

Sensor Settings Overview

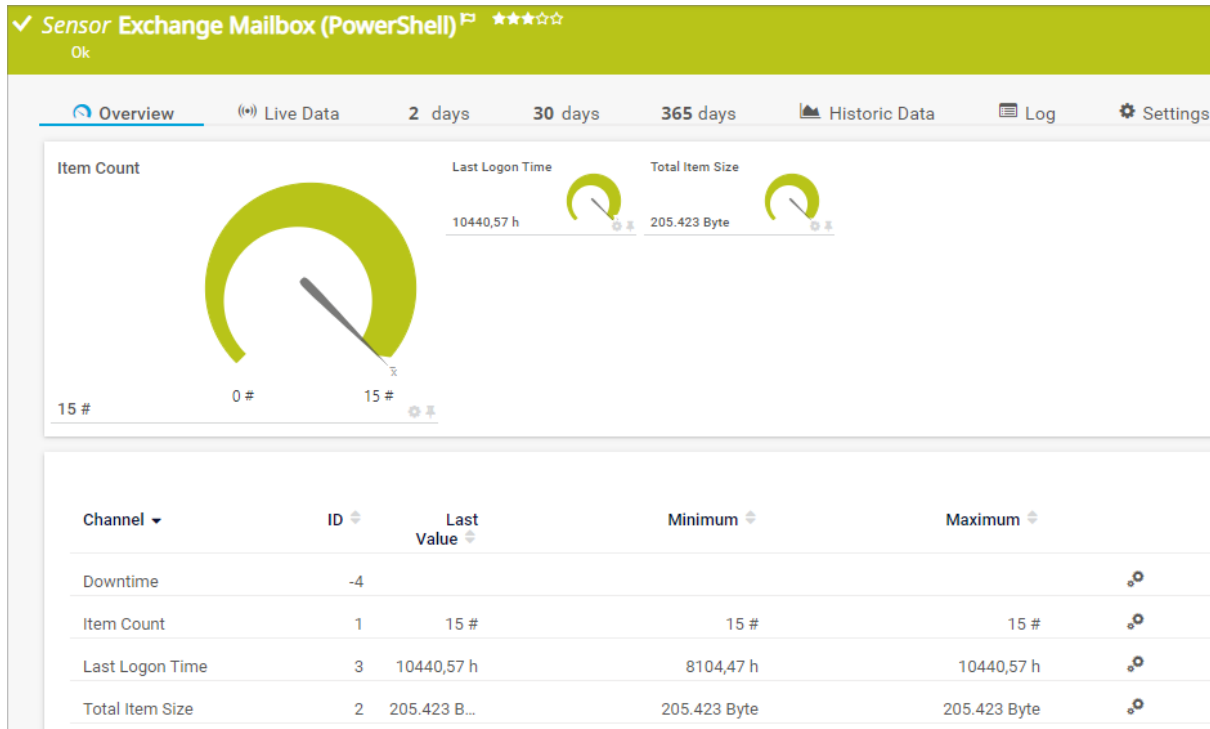
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.46 Exchange Mailbox (PowerShell) Sensor

The Exchange Mailbox (PowerShell) sensor monitors mailboxes of an Exchange server via Remote PowerShell.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Exchange Mailbox (PowerShell) Sensor

Sensor in Other Languages

- Dutch: Exchange Postbus (PowerShell)
- French: Boîte aux lettres Exchange (PowerShell)
- German: Exchange-Postfach (PowerShell)
- Japanese: Exchange Mailbox(PowerShell)
- Portuguese: Caixa de correio do Exchange (PowerShell)
- Russian: Exchange (PowerShell)
- Simplified Chinese: Exchange 邮箱 (PowerShell)
- Spanish: Buzón de Exchange (PowerShell)

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- The parent device for this sensor must be the Exchange server (version 2010 or higher) that hosts the database that you want to monitor.

- This sensor requires Remote PowerShell and Remote Exchange Management Shell on the target servers and PowerShell 2.0 on the probe system.
- This sensor requires the fully qualified domain name (FQDN) of the Exchange server in the [settings of the parent device](#)^[447].
- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- This sensor requires elevated rights for the user of this sensor on the Exchange system. It is not sufficient to have administrative rights. For details, see the Knowledge Base: [I have problems with the PowerShell Exchange sensors, what can I do?](#) (solution (2) in the reply)
- See the Knowledge Base: [Where can I find more information about PowerShell sensors?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Remote PowerShell and Remote Exchange Management Shell	<p>This sensor uses PowerShell commands. To monitor Exchange servers with this sensor, you have to enable Remote PowerShell and Remote Exchange Management Shell on the target servers that you want to monitor. Also ensure you have installed PowerShell 2.0 or later on the probe system.</p> <p>i In larger environments, the default memory limit for the remote shell might be insufficient. This might result in the error message The WSMAN provider host process did not return a proper response. In this case, increase the memory limit for Remote PowerShell.</p> <p>■ For more information, see the Knowledge Base: How do I enable and use remote commands in Windows PowerShell? and How can I increase memory for Remote PowerShell?</p>
FQDN	<p>To connect to Exchange servers, this sensor needs the FQDN. In the device settings^[447] of the Exchange server, provide the FQDN instead of the IP address.</p> <p>■ For more information, see the Knowledge Base: I have problems with the PowerShell Exchange sensors, what can I do?</p>
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i If the framework is missing, you cannot create this sensor.</p> <p>■ For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Sensor Settings

Setting	Description
Mailboxes	<p>Select the Exchange server mailboxes that you want to monitor. PRTG creates one sensor for each mailbox that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It includes a 'Sensor Name' field with an information icon, a 'Tags' field with an information icon and a list containing 'exampletag', and a 'Priority' field with an information icon and a star rating.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited . ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ exchange ▪ powershell ▪ mailbox
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings

Mailbox Name ⓘ *Mailbox1*

Result Handling ⓘ Discard result
 Store result

Sensor Settings

Setting	Description
Mailbox Name	Shows the name of the mailbox that this sensor monitors.

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display

Primary Channel **i** Downtime


Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>❗ You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>❗ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>❗ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>❗ If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

❗ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Item Count	<p>The number of items</p> <p> This channel is the primary channel by default.</p>

Channel	Description
Last Logon Time	The time since the last mailbox login
Total Item Size	The total size of items in bytes

More

■ KNOWLEDGE BASE

I have problems with the PowerShell Exchange sensors, what can I do?

- <https://kb.paessler.com/en/topic/54353>

Where can I find more information about PowerShell sensors?

- <https://kb.paessler.com/en/topic/62451>

What types of Exchange transport queues are there?

- <https://kb.paessler.com/en/topic/55413>

How do I enable and use remote commands in Windows PowerShell?

- <https://kb.paessler.com/en/topic/44453>

How can I increase memory for Remote PowerShell?

- <https://kb.paessler.com/en/topic/61922>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

My PowerShell sensor returns an error message. What can I do?





- <https://kb.paessler.com/en/topic/59473>

I get the error "WinRM cannot process the request" when I try to use a PowerShell sensor

- <https://kb.paessler.com/en/topic/59745>

Sensor Settings Overview

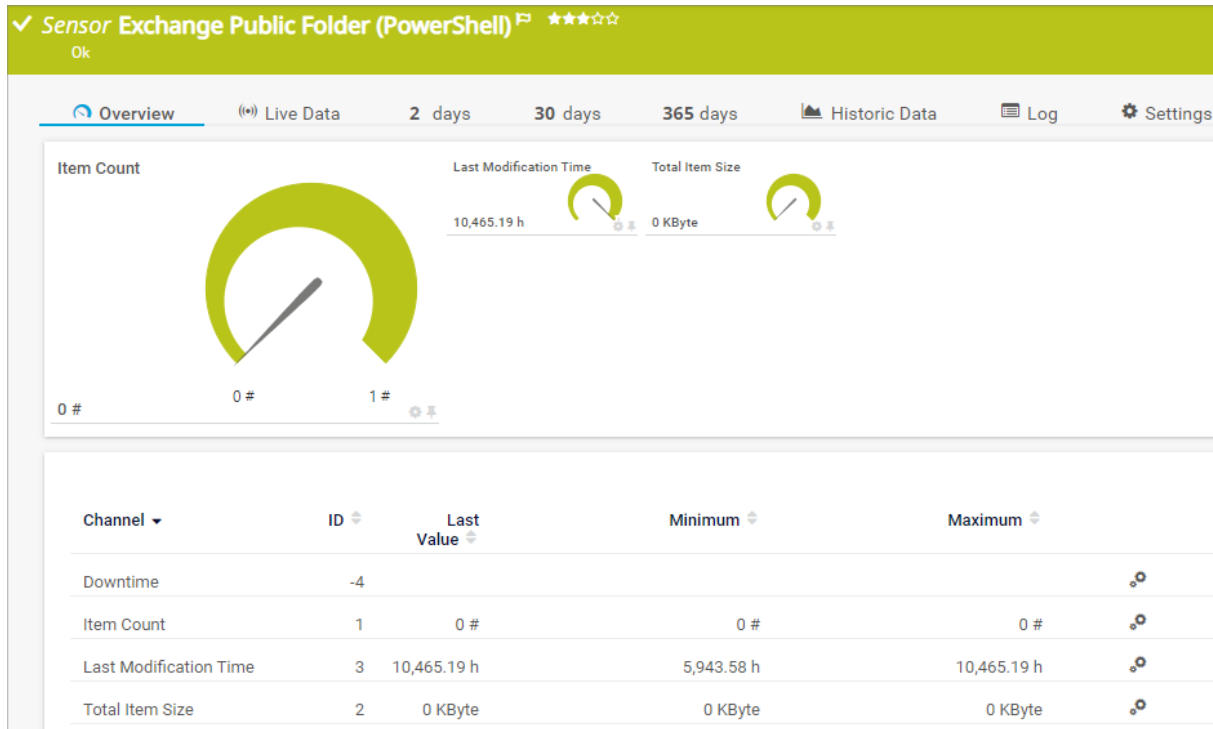
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.47 Exchange Public Folder (PowerShell) Sensor

The Exchange Public Folder (PowerShell) sensor monitors the public folders and subfolders of an Exchange server via Remote PowerShell.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Exchange Public Folder (PowerShell) Sensor

Sensor in Other Languages

- Dutch: Exchange Openbare Map (PowerShell)
- French: Dossier public Exchange (PowerShell)
- German: Exchange Öffentlicher Ordner (PowerShell)
- Japanese: Exchange パブリックフォルダー (PowerShell)
- Portuguese: Pasta pública do Exchange (PowerShell)
- Russian: Exchange (PowerShell)
- Simplified Chinese: Exchange 公共文件夹 (PowerShell)
- Spanish: Carpeta pública de Exchange (PowerShell)

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- The parent device for this sensor must be the Exchange server (version 2010 or higher) that hosts the database that you want to monitor.

- This sensor requires Remote PowerShell and Remote Exchange Management Shell on the target servers and PowerShell 2.0 on the probe system.
- This sensor requires the fully qualified domain name (FQDN) of the Exchange server in the [settings of the parent device](#)^[447].
- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- See the Knowledge Base: [Where can I find more information about PowerShell sensors?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Remote PowerShell and Remote Exchange Management Shell	<p>This sensor uses PowerShell commands. To monitor Exchange servers with this sensor, you have to enable Remote PowerShell and Remote Exchange Management Shell on the target servers that you want to monitor. Also ensure you have installed PowerShell 2.0 or later on the probe system.</p> <p>i In larger environments, the default memory limit for the remote shell might be insufficient. This might result in the error message The WSMAN provider host process did not return a proper response. In this case, increase the memory limit for Remote PowerShell.</p> <p>■ For more information, see the Knowledge Base: How do I enable and use remote commands in Windows PowerShell? and How can I increase memory for Remote PowerShell?</p>
FQDN	<p>To connect to Exchange servers, this sensor needs the FQDN. In the device settings^[447] of the Exchange server, provide the FQDN instead of the IP address.</p> <p>■ For more information, see the Knowledge Base: I have problems with the PowerShell Exchange sensors, what can I do?</p>
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i If the framework is missing, you cannot create this sensor.</p> <p>■ For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Sensor Settings

Setting	Description
Public Folders	<p>Select the public folders that you want to monitor. PRTG creates one sensor for each mailbox that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog box. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a blue 'x' to remove it and a plus sign to add more.
- Priority:** A section with five stars, where the first three are filled, indicating a priority of 3.

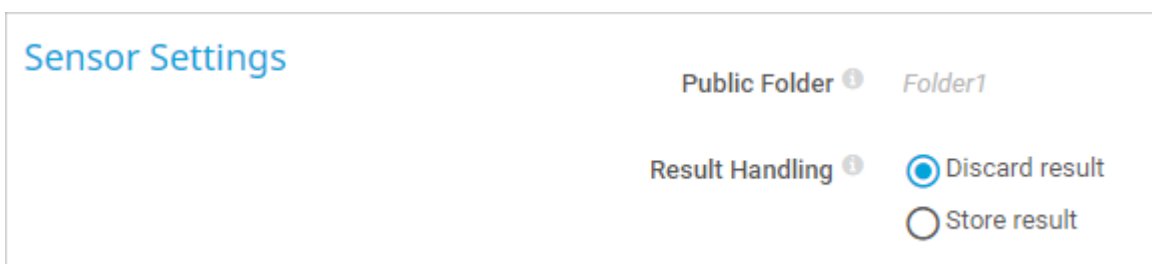
Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <ul style="list-style-type: none"> ❗ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ❗ For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ exchange ▪ powershell ▪ publicfolder
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

❗ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings



Sensor Settings

Setting	Description
Public Folder	<p>Shows the name of the public folder that this sensor monitors.</p> <ul style="list-style-type: none"> ❗ PRTG applies this filter in real time. If the configuration underneath the linked object changes, the library node accordingly shows matching sensors.

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel **ⓘ** Downtime


Graph Type **ⓘ** Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration^[4187] on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule None

Maintenance Window
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

- Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Item Count	<p>The number of items</p> <p> This channel is the primary channel by default.</p>

Channel	Description
Last Modification Time	The time since the last access
Total Item Size	The total size of items in bytes

More

■ KNOWLEDGE BASE

Where can I find more information about PowerShell sensors?

- <https://kb.paessler.com/en/topic/62451>

How do I enable and use remote commands in Windows PowerShell?

- <https://kb.paessler.com/en/topic/44453>

How can I increase memory for Remote PowerShell?

- <https://kb.paessler.com/en/topic/61922>

I have problems with the PowerShell Exchange sensors, what can I do?

- <https://kb.paessler.com/en/topic/54353>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

My PowerShell sensor returns an error message. What can I do?





- <https://kb.paessler.com/en/topic/59473>

I get the error "WinRM cannot process the request" when I try to use a PowerShell sensor

- <https://kb.paessler.com/en/topic/59745>

Sensor Settings Overview

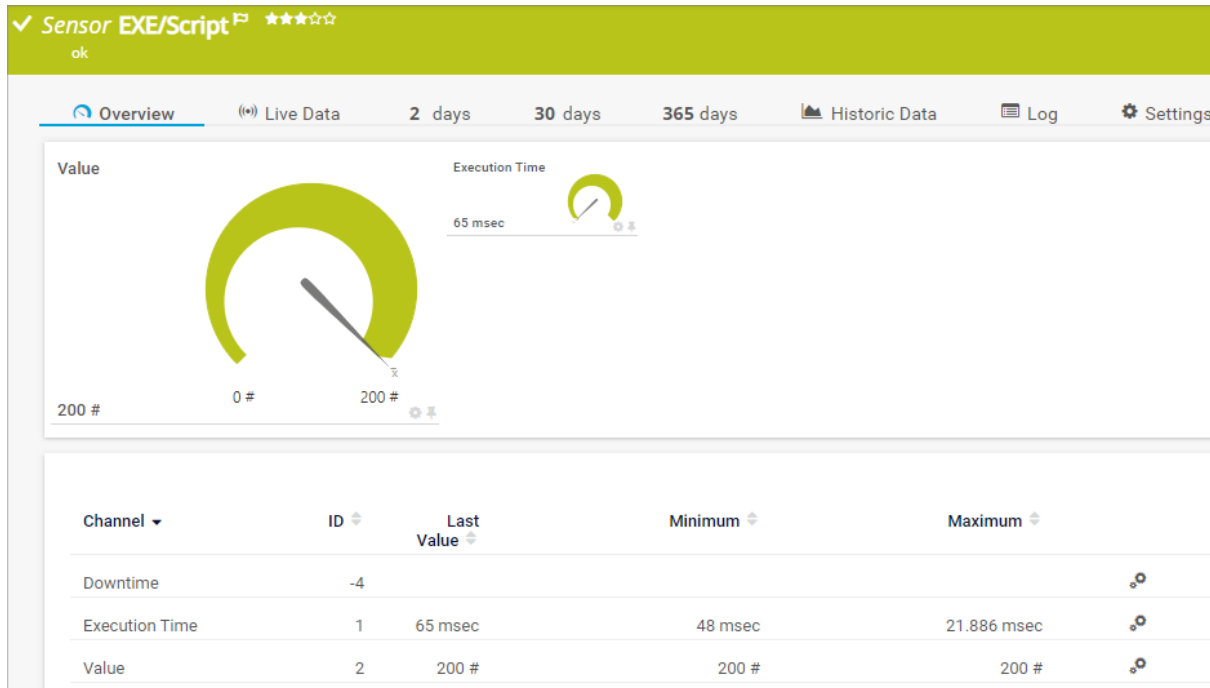
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3967

7.8.48 EXE/Script Sensor

The EXE/Script sensor runs an executable file (.exe, .dll) or a script (batch file, VBScript, PowerShell) on the probe system. This option is available as part of the PRTG API.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



EXE/Script Sensor

Sensor in Other Languages

- Dutch: EXE/Script
- French: Script/EXE
- German: Programm/Skript
- Japanese: EXE/スクリプト
- Portuguese: EXE/Script
- Russian: EXE/
- Simplified Chinese: EXE/脚本
- Spanish: EXE/Script




Remarks

- You must store the executable or script file on the probe system. In a cluster, copy the file to every cluster node.
- This sensor [requires](#) that Remote PowerShell is enabled on the target system and PowerShell 3.0 on both the probe system and the target system.
- This sensor requires .NET 4.7.2 or later on the probe system.

- We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
- If you want to execute a custom Windows Management Instrumentation Query Language (WQL) script, use the [WMI Custom sensor](#)³⁵⁹⁶.
- This sensor has a low performance impact.
- See the Knowledge Base: [What is the Mutex Name in the PRTG EXE/Script sensor settings?](#)
- See the Knowledge Base: [How can I test if parameters are correctly transmitted to my script when using an EXE/Script sensor?](#)
- See the Knowledge Base: [How can I show special characters with EXE/Script sensors?](#)
- See the Knowledge Base: [Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.








Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Remote PowerShell	<p>This sensor uses PowerShell commands. To monitor devices with this sensor, Remote PowerShell access must be enabled on the target computer. Also make sure that you have installed PowerShell 3.0 or later on both the probe system and the target system.</p> <p> If you receive an error message regarding issues with the WinRM connection, make sure that remote commands have been enabled in PowerShell. For more details, see the Knowledge Base: How do I enable and use remote commands in Windows PowerShell?</p>

Add Sensor

The [Add Sensor](#)³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Sensor Settings

Setting	Description
EXE/Script	<p>Select an executable file from the list. The sensor executes it with every scanning interval.</p> <p>The list contains all files in the corresponding \Custom Sensors\EXE subfolder of the PRTG program directory⁴⁵²⁶ on the probe system. For a file to appear in this list, store the file ending in .bat, .cmd, .dll, .exe, .ps1, or .vbs into this subfolder.</p> <ul style="list-style-type: none">  To show the expected sensor values and states, your files must use the correct format for the returned values (in this case, value:message to standard output). The exit code of the file determines the sensor status¹⁹⁷.  For detailed information on how to create custom sensors and for the return format, see section Custom Sensors⁴⁴³⁸.  If you use custom sensors on the cluster probe⁴⁵⁶⁰, copy your files to every cluster node.
Value Type	<p>Define the type of the values that your executable or script file returns:</p> <ul style="list-style-type: none"> ▪ Integer: An integer is expected as return value. If the script returns a float, PRTG displays the value 0. ▪ Float: A float is expected as return value, with a dot (.) between the predecimal position and the decimal places. <ul style="list-style-type: none">  The sensor also displays integer values unless they produce a buffer overflow. ▪ Counter: Your script returns an integer that increases. PRTG shows the difference between the values of two sensor scans. <ul style="list-style-type: none">  A counter must return an integer. It does not support float values. <p> The sensor does not support string values.</p>
Channel Name	<p>Enter a name for the channel in which the sensor shows returned values. Enter a string. This is for display purposes only. You can change the name later in the channel settings³⁹⁷⁷.</p>
Unit String	<p>Enter the unit for the values that this sensor returns. Enter a string. PRTG uses the unit string for display purposes and shows it in graphs, data tables, and gauges.</p> <p> If you want to change the unit after sensor creation, you can change it in the sensor's channel settings³⁹⁷⁷.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag ✕ +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ exesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings

Note: The EXE file has to run on the computer where the parent probe is installed, not on the parent device. The working directory for EXE files is the probe directory. .vbs files, .ps1 files, or other script files may use different working directories.

EXE/Script ? Demo Batchfile - Returns 200.bat

Parameters ? _____

Environment ? Default Environment
 Set placeholders as environment values

Security Context ? Use security context of PRTG probe service
 Use Windows credentials of parent device

Mutex Name ? _____

Timeout (Sec.) ? 60

Value Type ? Integer

If Value Changes ? Ignore changes
 Trigger 'change' notification

Result Handling ? Discard result
 Store result
 Store result in case of error

Sensor Settings

Setting	Description
EXE/Script	Shows the executable or script file that the sensor executes with each sensor scan. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Parameters	If your executable or script file catches command-line parameters, you can define them here. You can use placeholders as well. Enter a string or leave the field empty. ■ For a full list of all placeholders, see section Custom Sensors ⁴⁴⁴⁹ . i You need to escape special characters and whitespaces in your parameters and surround them with double quotes. See section Escape Special Characters and Whitespaces in Parameters ¹⁰⁷⁴ for details.
Environment	Select whether PRTG command-line parameters are also available as environment parameters: <ul style="list-style-type: none"> ▪ Default environment: Do not provide values of PRTG placeholders in the environment. Select this secure option if you are not sure.

Setting	Description
	<ul style="list-style-type: none"> Set placeholders as environment values: From within your executable or script, the values of the PRTG command-line parameters are available via environment variables. For example, you can then read and use the current host value of the parent device from within your script. This option can pose a security risk because credentials are provided in several variables as well. For a full list of all available variables, see section Custom Sensors⁴⁴⁵⁰.
Security Context	<p>Define the Windows user account that the sensor uses to run the executable or script file:</p> <ul style="list-style-type: none"> Use security context of probe service: Run the file under the same Windows user account that the probe runs under. By default, this is the Windows system user account. Use Windows credentials of parent device: Use the Windows user account in the parent device settings⁴⁴⁶¹.
Mutex Name	<p>Define a mutual exclusion (mutex) name for the process. Enter a string or leave the field empty.</p> <p>i PRTG executes all EXE/Script sensors that have the same mutex serially, not simultaneously. This is useful if you use a lot of sensors and you want to avoid high resource usage caused by simultaneously running processes.</p> <p>See the Knowledge Base: What is the Mutex Name in the PRTG EXE/Script settings?</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
Value Type	<p>Shows the value type.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
If Value Changes	<p>Define what the sensor does when the sensor value changes:</p> <ul style="list-style-type: none"> Ignore changes (default): Take no action on change. Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁸, you can use this mechanism to trigger a notification³⁹⁸⁷ whenever the sensor value changes.

Setting	Description
Result Handling	<p>Define what the sensor does with the result that the executable file gives back:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ▪ Store result in case of error: Store the last sensor result only if the sensor shows the Down status. <p>i Enable this option if you do not want failures to be overwritten by a following success of the script.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel **ⓘ** Downtime

Graph Type **ⓘ** Show channels independently (default)


Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⚙ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules 4170.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Escape Special Characters and Whitespaces in Parameters

You need to escape special characters in parameters that you pass to an executable or script and surround them with quotation marks to make sure that the characters are correctly interpreted. PowerShell scripts in particular require adequate escaping so that the parameters are passed in a valid PowerShell syntax. PRTG automatically does most of the escaping for you.

Follow these rules to escape special characters and whitespaces in the parameters fields:

- Use quotes for parameters that contain whitespaces.

```
-name "Mr John Q Public"
-name 'Mr John Q Public'
```

- Use double quotes for parameters that contain single quotes.

```
-name "Mr 'John Q' Public"
```

- Use single quotes for parameters that contain double quotes.

```
-name 'Mr "John Q" Public'
```


- Use a backslash (\) to escape and pass a literal double quote.

```
-name pub\"lic
```

- Use double quotes for parameters that contain double and single quotes and escape double quotes.

```
-name "pu'b\"lic"
```

- ⓘ In SSH scripts, you can use alphanumeric characters and the special characters ".", "_", "-", "=", and "/" outside of quoted strings.
- ⓘ We recommend that you do not pass passwords in parameters. Use placeholders instead. See section [Custom Sensors](#)⁴⁴⁵⁰ for details.

Channel List

- ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Execution Time	The execution time in milliseconds (msec) ⓘ This channel is the primary channel by default.
[Value]	The value that the executable file or script file returns in one channel ■ For details about the return value format, see section Custom Sensors ⁴⁴³⁹ .

More

■ KNOWLEDGE BASE

What is the Mutex Name in the EXE/Script sensor settings?

- <https://kb.paessler.com/en/topic/6673>

How can I test if parameters are correctly transmitted to my script when using an EXE/Script sensor?

- <https://kb.paessler.com/en/topic/11283>

How can I show special characters with EXE/Script sensors?

- <https://kb.paessler.com/en/topic/64817>

Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?

- <https://kb.paessler.com/en/topic/75372>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

How do I enable and use remote commands in Windows PowerShell?

- <https://kb.paessler.com/en/topic/44453>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How and where does PRTG store its data?





- <https://kb.paessler.com/en/topic/463>

For which sensor types do you recommend Windows Server 2012 R2 or later and why?

- <https://kb.paessler.com/en/topic/64331>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

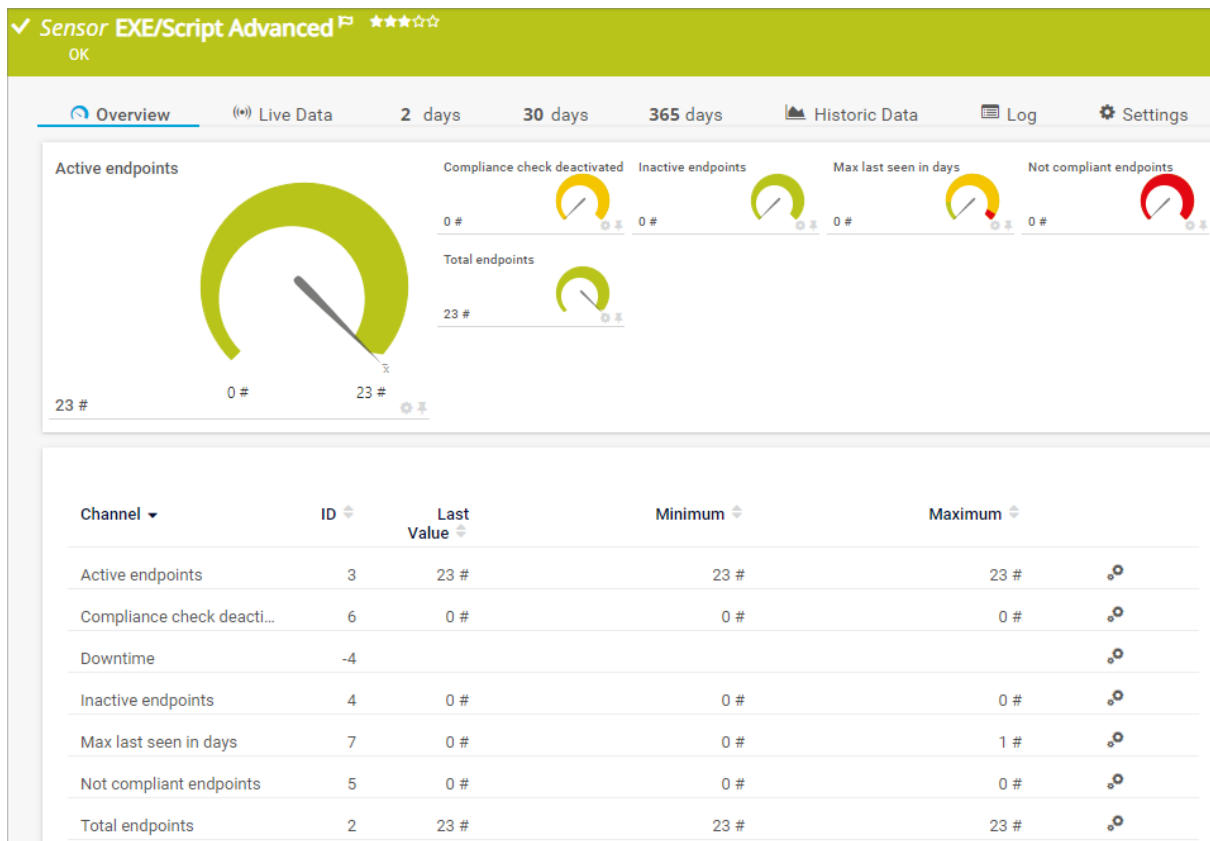
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.49 EXE/Script Advanced Sensor

The EXE/Script Advanced sensor runs an executable file (.exe, .dll) or a script (batch file, VBScript, PowerShell) on the probe system. This option is available as part of the PRTG API.

i The return value of this sensor must be valid Extensible Markup Language (XML) or JavaScript Object Notation (JSON).

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



EXE/Script Advanced Sensor



Sensor in Other Languages

- Dutch: EXE/Script Geavanceerd
- French: Script/EXE version améliorée
- German: Programm/Skript (Erweitert)
- Japanese: EXE/スクリプト(アドバンスト)
- Portuguese: EXE/Script avançado
- Russian: EXE/Script
- Simplified Chinese: 高级 EXE/脚本
- Spanish: EXE/Script Avanzado

Remarks

- This sensor does not officially support more than 50 channels. Depending on the data used with this sensor, you might exceed the maximum number of supported channels. In this case, PRTG tries to display all channels. Be aware, however, that you experience limited usability and performance.
 - You must store the executable or script file on the probe system. In a cluster, copy the file to every cluster node.
 - This sensor [requires](#)¹⁰⁷⁸ that Remote PowerShell is enabled on the target system and PowerShell 3.0 on both the probe system and the target system.
 - This sensor requires .NET 4.7.2 or later on the probe system.
 - We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
 - If you want to execute a custom Windows Management Instrumentation Query Language (WQL) script, use the [WMI Custom sensor](#)³⁵⁹⁶.
 - This sensor has a medium performance impact.
 - See the Knowledge Base: [What is the Mutex Name in the PRTG EXE/Script sensor settings?](#)
 - See the Knowledge Base: [How can I test if parameters are correctly transmitted to my script when using an EXE/Script sensor?](#)
 - See the Knowledge Base: [How can I show special characters with EXE/Script sensors?](#)
 - See the Knowledge Base: [Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?](#)
 - See the Knowledge Base: [How can I use meta-scans for custom EXE/Script sensors?](#)
- ☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Remote PowerShell	<p>This sensor uses PowerShell commands. To monitor devices with this sensor, Remote PowerShell access must be enabled on the target computer. Also make sure that you have installed PowerShell 3.0 or later on both the probe system and the target system.</p>

Requirement	Description
	<p>i If you receive an error message regarding issues with the WinRM connection, make sure that remote commands have been enabled in PowerShell. For more details, see the Knowledge Base: How do I enable and use remote commands in Windows PowerShell?</p>

Add Sensor

The [Add Sensor](#)³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Sensor Settings

Setting	Description
EXE/Script	<p>Select an executable file from the list. The sensor executes it with every scanning interval.</p> <p>The list contains all files in the corresponding \Custom Sensors\EXE subfolder of the PRTG program directory⁴⁵²⁶ on the probe system. For a file to appear in this list, store the file ending in .bat, .cmd, .dll, .exe, .ps1, or .vbs into this subfolder.</p> <p>i To show the expected values and sensor states, your files must return the expected XML or JSON format to standard output. Values and message must be embedded in the XML or JSON.</p> <p>■ For detailed information on how to create custom sensors and for the return format, see section Custom Sensors⁴⁴⁴⁰.</p> <p>i If you use custom sensors on the cluster probe⁴⁵⁶⁰, copy your files to every cluster node.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name **i** Example Name

Tags **i** exampletag ✕ +

Priority **i** ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ xmlxesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings

The EXE file has to run on the computer where the parent probe is installed, not on the parent device. The working directory for EXE files is the probe directory. .vbs files, .ps1 files, or other script files may use different working directories.

EXE/Script ⓘ Demo Batchfile - Returns static values in four channels.bat

Parameters ⓘ

Environment ⓘ Default Environment
 Set placeholders as environment values

Security Context ⓘ Use security context of PRTG probe service
 Use Windows credentials of parent device

Mutex Name ⓘ

Timeout (Sec.) ⓘ 60

Result Handling ⓘ Discard result
 Store result
 Store result in case of error

Sensor Settings

Setting	Description
EXE/Script	Shows the executable or script file that the sensor executes with each sensor scan. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Parameters	If your executable or script file catches command-line parameters, you can define them here. You can use placeholders as well. Enter a string or leave the field empty. ■ For a full list of all placeholders, see section Custom Sensors <small> ⓘ </small> . ⓘ You need to escape special characters and whitespaces in your parameters and surround them with double quotes. See section Escape Special Characters and Whitespaces in Parameters <small> ⓘ </small> for details.
Environment	Select whether PRTG command-line parameters are also available as environment parameters: <ul style="list-style-type: none"> ▪ Default environment: Do not provide values of PRTG placeholders in the environment. Select this secure option if you are not sure. ▪ Set placeholders as environment values: From within your executable or script, the values of the PRTG command-line parameters are available via environment variables. For example, you can then read and use the current host value of the parent device from within your script. This option can pose a security risk because credentials are provided in several variables as well.

Setting	Description
	<ul style="list-style-type: none"> For a full list of all available variables, see section Custom Sensors ⁴⁴⁵.
Security Context	<p>Define the Windows user account that the sensor uses to run the executable or script file:</p> <ul style="list-style-type: none"> Use security context of probe service: Run the file under the same Windows user account that the probe runs under. By default, this is the Windows system user account. Use Windows credentials of parent device: Use the Windows user account in the parent device settings ⁴⁴⁶.
Mutex Name	<p>Define a mutual exclusion (mutex) name for the process. Enter a string or leave the field empty.</p> <ul style="list-style-type: none"> i PRTG executes all EXE/Script sensors that have the same mutex serially, not simultaneously. This is useful if you use a lot of sensors and you want to avoid high resource usage caused by simultaneously running processes. See the Knowledge Base: What is the Mutex Name in the PRTG EXE/Script settings?
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <ul style="list-style-type: none"> i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.
Result Handling	<p>Define what the sensor does with the result that the executable file gives back:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵² on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. Store result in case of error: Store the last sensor result only if the sensor shows the Down status. i Enable this option if you do not want failures to be overwritten by a following success of the script. i In a cluster, PRTG stores the result in the PRTG data directory of the master node.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p> <p> ⓘ The Stack Unit option for stacking graphs only works if you explicitly define the same <unit> for at least two channels. For detailed information about sensor settings, see section Custom Sensors ⁴⁴⁴².</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click ⓘ to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Escape Special Characters and Whitespaces in Parameters

You need to escape special characters in parameters that you pass to an executable or script and surround them with quotation marks to make sure that the characters are correctly interpreted. PowerShell scripts in particular require adequate escaping so that the parameters are passed in a valid PowerShell syntax. PRTG automatically does most of the escaping for you.

Follow these rules to escape special characters and whitespaces in the parameters fields:

- Use quotes for parameters that contain whitespaces.

```
-name "Mr John Q Public"
-name 'Mr John Q Public'
```

- Use double quotes for parameters that contain single quotes.

```
-name "Mr 'John Q' Public"
```

- Use single quotes for parameters that contain double quotes.

```
-name 'Mr "John Q" Public'
```


- Use a backslash (\) to escape and pass a literal double quote.

```
-name pub\"lic
```


- Use double quotes for parameters that contain double and single quotes and escape double quotes.

```
-name "pu'b\"lic"
```

 In SSH scripts, you can use alphanumeric characters and the special characters ".", "_", "-", "=", and "/" outside of quoted strings.

 We recommend that you do not pass passwords in parameters. Use placeholders instead. See section [Custom Sensors](#) ⁴⁴⁵⁰ for details.

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	<p>The values that the executable file or script file returns in several channels</p> <p>■ For details about the return value format, see section Custom Sensors ⁴⁴⁴⁰.</p>

More

■ KNOWLEDGE BASE

What is the Mutex Name in the EXE/Script sensor settings?

- <https://kb.paessler.com/en/topic/6673>

How can I test if parameters are correctly transmitted to my script when using an EXE/Script sensor?

- <https://kb.paessler.com/en/topic/11283>

How can I show special characters with EXE/Script sensors?

- <https://kb.paessler.com/en/topic/64817>

Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?

- <https://kb.paessler.com/en/topic/75372>

How can I use meta-scans for custom EXE/Script sensors?

- <https://kb.paessler.com/en/topic/68109>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

How do I enable and use remote commands in Windows PowerShell?

- <https://kb.paessler.com/en/topic/44453>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How and where does PRTG store its data?

- <https://kb.paessler.com/en/topic/463>

For which sensor types do you recommend Windows Server 2012 R2 or later and why?





- <https://kb.paessler.com/en/topic/64331>

How can I test if parameters are correctly transmitted to my script when using an EXE/Script sensor?

- <https://kb.paessler.com/en/topic/11283>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

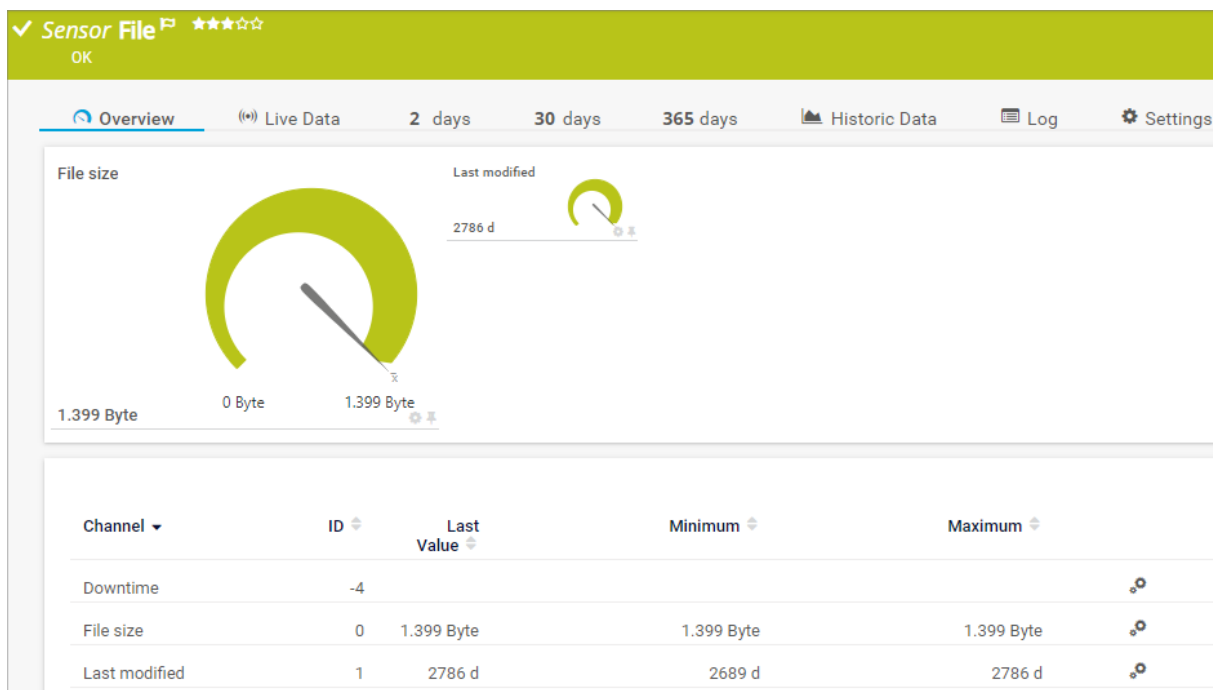
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.50 File Sensor

The File sensor monitors a file located on the local disk on the probe system, parent device, or a file that is accessible via server message block (SMB). You can monitor changes to the file content and file time stamp.

i In contrast to the [Folder sensor](#)^[1116], you can also monitor changes to the actual content of a file.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)^[1102].



File Sensor

Sensor in Other Languages

- Dutch: Bestand
- French: Fichier
- German: Datei
- Japanese: ファイル
- Portuguese: Arquivo
- Russian:
- Simplified Chinese: 文件
- Spanish: Archivo

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires that the LanmanServer service runs on the target computer.

- Try using the fully qualified domain name (FQDN) of the target device if the sensor does not get a connection with the IP address.
- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [What can I do if PRTG doesn't succeed with monitoring a share? PE029 PE032](#)
- See the Knowledge Base: [Can I use placeholders in file names to monitor logfiles?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
LanmanServer service	<p>To monitor shares on Windows machines, make sure that the LanmanServer service runs on the target computer.</p> <p>i The display name of the service is Server.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ X +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ filesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Specific

Sensor Specific

File Name ⓘ C:\Windows\file.txt

Sensor Behavior ⓘ Show down status if file does not exist
 Show down status if file exists

Monitor File Content ⓘ Ignore changes
 Trigger 'change' notification

Monitor File Time Stamp ⓘ Ignore changes
 Trigger 'change' notification

Sensor Specific

Setting	Description
File Name	<p>Enter the full path to the file that this sensor monitors. For example, enter C:\Windows\file.txt. to monitor a file on the probe system.</p> <p>If you use a local path, the sensor only looks for the target file on the probe system, not on the parent device. To monitor a file on the parent device, use the dollar sign (\$) like C\$\User\johnqpublic\file.txt.</p> <p>If the file is located on a network device, use the Universal Naming Convention (UNC) path without the server part (only enter share\folder\file.txt). The sensor inherits the server part (\\server\ from the parent device settings^[446]. Enter a valid path and file name.</p> <p>i To monitor Windows shares, the LanmanServer service must run on the target computer.</p>
Sensor Behavior	<p>Specify when the sensor shows the Down status^[197]:</p> <ul style="list-style-type: none"> Show down status if file does not exist: Show the Down status if the file does not exist. Show down status if file exists: Show the Down status if the file does exist.
Monitor File Content	<p>Specify if the sensor sends a notification when the content of the file changes (based on a checksum):</p> <ul style="list-style-type: none"> Ignore changes: Take no action on change. Trigger 'change' notification: Send an internal message that indicates that its value has changed. In combination with a change trigger^[4138], you can use this mechanism to trigger a notification^[3987] whenever the sensor value changes.

Setting	Description
Monitor File Time Stamp	<p>Specify if the sensor sends a notification when the content of the file's time stamp changes:</p> <ul style="list-style-type: none"> Ignore changes: Take no action on change. Trigger 'change' notification: Send an internal message that indicates that its value has changed. In combination with a change trigger, you can use this mechanism to trigger a notification whenever the sensor value changes.


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none"> i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte



Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
File Size	The file size in bytes

Channel	Description
	 This channel is the primary channel by default.
Last Modified	The time since the file was last modified
	 The sensor shows a negative value if the date of a modified file is in the future.

More

KNOWLEDGE BASE

What can I do if PRTG doesn't succeed with monitoring a share? PE029 PE032

- <https://kb.paessler.com/en/topic/513>

Can I use placeholders in file names to monitor logfiles?





- <https://kb.paessler.com/en/topic/67965>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

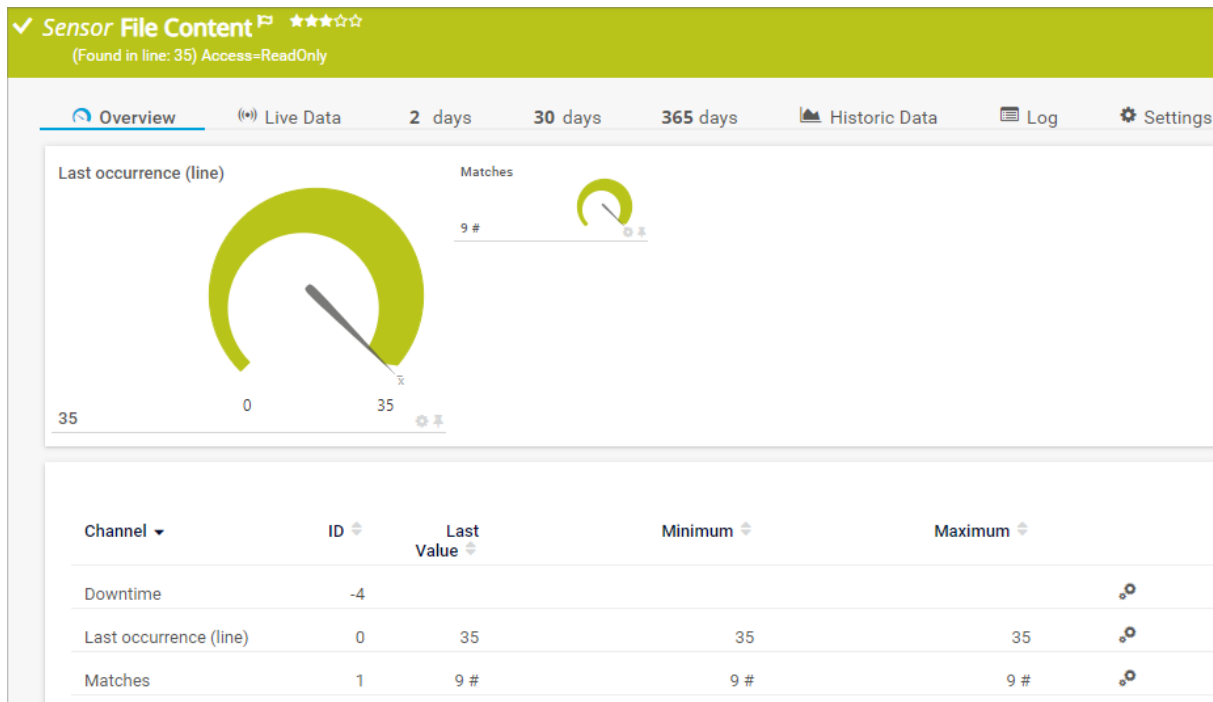
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.51 File Content Sensor

The File Content sensor checks a text file (for example, a logfile) for certain strings.

i Additionally, the sensor quotes matching lines in the sensor message.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



File Content Sensor

Sensor in Other Languages

- Dutch: Bestands inhoud
- French: Contenu du fichier
- German: Datei-Inhalt
- Japanese: ファイルの内容
- Portuguese: Conteúdo de arquivo
- Russian:
- Simplified Chinese: 文件内容
- Spanish: Contenido de archivo

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires that the LanmanServer service runs on the target computer.

- This sensor does not support UTF-16 encoded files. In this case, try to use a custom sensor like the [EXE/Script sensor](#)^[1063] or the [EXE/Script Advanced sensor](#)^[1077].
- This sensor does not officially support binary files. If you would still like to monitor binary files contrary to our recommendation, choose the option Always transmit the entire file in the sensor settings, section Network Usage.
- This sensor supports Unix line feeds.
- This sensor supports the IPv6 protocol.
- To monitor files on a Linux system, the folder must be accessible via server message block (SMB).
- Try using the fully qualified domain name (FQDN) of the target device if the sensor does not get a connection with the IP address.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
LanmanServer service	<p>To monitor shares on Windows machines, make sure that the LanmanServer service runs on the target computer.</p> <p>❗ The display name of the service is Server.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog box. It contains the following elements:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A text input field containing 'exampletag', with a blue 'x' icon to remove the tag and a plus icon to add more tags.
- Priority**: A star rating system showing 4 stars filled and 1 star empty.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ filesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

Sensor Specific

Sensor Specific

File Name ⓘ C:\Windows\file.txt

Search String ⓘ text

Search Method ⓘ Simple string search
 Regular expression

File Transmission Handling ⓘ Only transmit new lines at the end of the file (default, BETA)
 Always transmit the entire file

File Encoding ⓘ Windows-1252 (default)
 UTF-8
 UTF-16

Sensor Behavior ⓘ Shows the warning status when the string is not found
 Shows the warning status when the string is found

If Value Changes ⓘ Ignore changes
 Trigger 'change' notification

Sensor Specific

Setting	Description
File Name	<p>Enter the full path to the file that this sensor monitors. For example, enter C:\Windows\file.txt. to monitor a file on the probe system.</p> <p>If you use a local path, the sensor only looks for the target file on the probe system, not on the parent device. To monitor a file on the parent device, use the dollar sign (\$) like C\$\User\johnqpublic\file.txt.</p> <p>If the file is located on a network device, use the Universal Naming Convention (UNC) path without the server part (only enter share\folder\file.txt). The sensor inherits the server part (\\server\ from the parent device settings⁴⁴⁶. Enter a valid path and file name.</p> <ul style="list-style-type: none"> ⓘ To monitor Windows shares, the LanmanServer service must run on the target computer. ⓘ To monitor Linux files, the folder with these files must be accessible via SMB. ⓘ Note that it might produce a high amount of network traffic if you define that PRTG queries an entire file on your network with every scanning interval.
Search String	<p>Define the string that you want to search the file for. You can enter a simple string in plain text or a regular expression (regex)⁴⁴⁹.</p> <ul style="list-style-type: none"> ⓘ The search string must be case sensitive.

Setting	Description
Search Method	<p>Define the method with which you want to provide the search string:</p> <ul style="list-style-type: none"> ▪ Simple string search: Search for a simple string in plain text. <p>i The characters <code>*</code> and <code>?</code> work as placeholders. <code>*</code> stands for no number or any number of characters and <code>?</code> stands for exactly one character. You cannot change this behavior. The literal search for these characters is only possible with a regex.</p> <ul style="list-style-type: none"> ▪ Regular expression: Search with a regex. <p>i The pattern must be in one line and only the last matching line is returned.</p> <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p>
File Transmission Handling	<p>Define in which way the sensor transmits the target file to PRTG:</p> <ul style="list-style-type: none"> ▪ Only transmit new lines at the end of the file (default): Send the entire file to PRTG only with the first scanning interval. With the following scanning intervals, the sensor only transmits new lines at the end of the file. It does not send old lines but it still counts them. This option improves the performance of the sensor. BETA This option is in beta status. Do not expect that it works as expected in every usage scenario. ▪ Always transmit the entire file: Send the entire file to PRTG with every sensor scanning interval. If this results in too much traffic on the target system, we recommend that you choose Only transmit new lines at the end of the file instead. <p>The sensor can only transmit new lines in the following cases:</p> <ul style="list-style-type: none"> ▪ the file is bigger than in the previous scanning interval, and ▪ the last line in the file is still in the same place in the file. <p>i The sensor supports Windows and Linux line endings (CRLF or LF).</p>
File Encoding	<p>Specify the encoding of the file that this sensor monitors:</p> <ul style="list-style-type: none"> ▪ Windows-1252 (default) ▪ UTF-8 ▪ UTF-16
Sensor Behavior	<p>Define the condition for which the sensor shows the Warning status¹⁹⁷:</p> <ul style="list-style-type: none"> ▪ Shows the warning status when the string is not found: Show the Warning status if there is no match. Otherwise it remains in the Up status.

Setting	Description
If Value Changes	<p>Define what the sensor does if the value of the Last occurrence (line) channel changes</p> <ul style="list-style-type: none"> Shows the warning status when the string is found: Show the Warning status if there is a match. Otherwise it remains in the Up status. Ignore changes (default): Take no action on change. Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger, you can use this mechanism to trigger a notification whenever the sensor value changes. <p>i The sensor does not trigger the notification when the number of Matches changes.</p>

Debug Options

Debug Options

Result Handling **i**

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display




Sensor Display

Primary Channel **i** Downtime


Graph Type **i**

Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

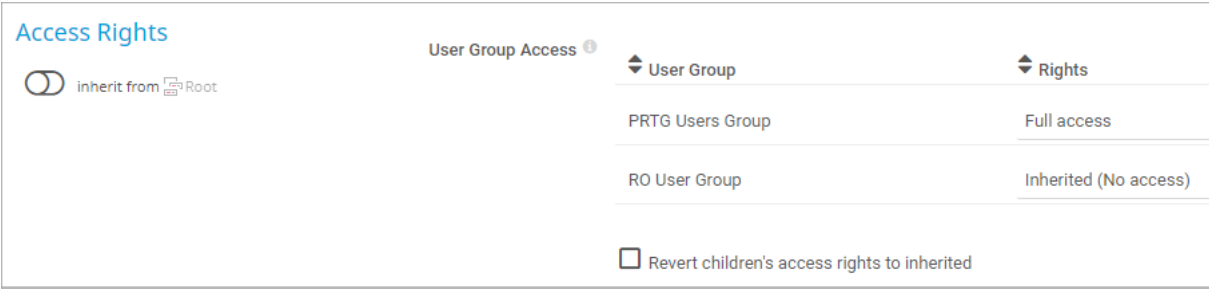
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



User Group Access	User Group	Rights
<input checked="" type="checkbox"/> inherit from  Root	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Last Occurrence (Line)	The line number of the last match i This channel is the primary channel by default.
Matches	The number of matches

More





■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

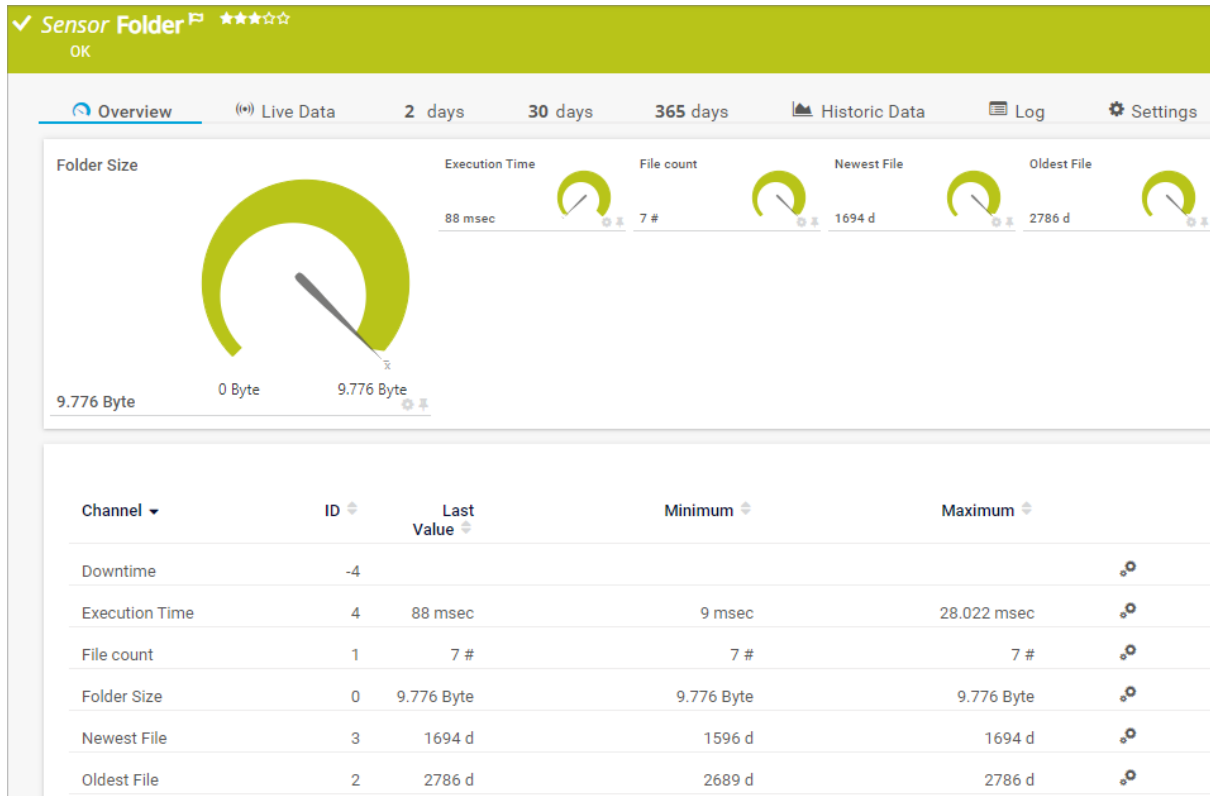
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.52 Folder Sensor

The Folder sensor monitors a folder via server message block (SMB). You can monitor file changes and file ages.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Folder Sensor

Sensor in Other Languages

- Dutch: Map
- French: Dossier
- German: Ordner
- Japanese: フォルダ
- Portuguese: Pasta
- Russian:
- Simplified Chinese: 文件夹
- Spanish: Carpeta

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires that the LanmanServer service runs on the target computer.

- This sensor counts all files in a folder, including hidden files.
- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [What can I do if PRTG doesn't succeed with monitoring a share? PE029 PE032](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
LanmanServer service	<p>To monitor shares on Windows machines, make sure that the LanmanServer service runs on the target computer.</p> <p>i The display name of the service is Server.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Add Sensor

The [Add Sensor](#)³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Folder Monitor

Setting	Description
File Age Check	<p>Specify if the sensor monitors the folder for certain file ages and shows a corresponding status¹⁹⁷:</p> <ul style="list-style-type: none"> ▪ Do not check: Do not check the age of the files in the folder: ▪ Show warning status if older: Set the sensor to the Warning status if one of the files in the folder is older than a specific limit unit. ▪ Show down status if older: Set the sensor to the Down status if one of the files in the folder is older than a specific limit unit. ▪ Show warning status if younger: Set the sensor to the Warning status if one of the files in the folder is younger than a specific limit unit. ▪ Show down status if younger: Set the sensor to the Down status if one of the files in the folder is younger than a specific limit unit. <p>i You can change the file age check later via the Limits section in the channel settings^{397a} of Newest File and Oldest File.</p>

Setting	Description
File Age Limit	This setting is only visible if you select a file age check above. Enter the age of a file in the folder that triggers the sensor status change if the age falls below a specific value or if it is exceeded. Enter an integer value. Define the limit unit below.
File Age Limit Unit	This setting is only visible if you select a file age check above. Specify the unit for the file age value: <ul style="list-style-type: none"> Days: Select this option if the File Age Limit is a number of days. Hours: Select this option if the File Age Limit is a number of hours. Minutes: Select this option if the File Age Limit is a number of minutes.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus sign, and a 'Priority' field with five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree ^[183] , as well as in alarms ^[228] , logs ^[237] , notifications ^[403] , reports ^[406] , maps ^[406] , libraries ^[407] , and tickets ^[240] . <i>i</i> If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?
Parent Tags	Shows tags ^[145] that the sensor inherits ^[145] from its parent device ^[140] , parent group ^[139] , and parent probe ^[139] . <i>i</i> This setting is for your information only. You cannot change it.

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). i For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ foldersensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Folder Monitor

Folder Monitor

Folder Name ⁱ C:\Windows

Recurse Subfolders ⁱ Do not recurse subfolders
 Monitor the folder and its subfolders (recursive)

If Folder Contents Change ⁱ Ignore changes
 Trigger 'change' notification

Timeout (Sec.) ⁱ 300

Note: You can set up file age checks in the settings of the channels Oldest File and Newest File. Enter your desired thresholds (in seconds) in the channel settings section Limits.

Folder Monitor

Setting	Description
Folder Name	<p>Enter the full path to the folder this sensor monitors. For example, enter C:\Windows.</p> <p>If the file is located on a network device, use the Universal Naming Convention (UNC) path without the server part (only enter share\folder). The server part (\\server\) is taken from the parent device settings ^[446] of this sensor. Enter a valid path name.</p> <ul style="list-style-type: none"> i To monitor Windows shares, the LanmanServer service must run on the target computer.
Recurse Subfolders	<p>Specify if the sensor includes subfolders in the folder monitoring:</p>

Setting	Description
	<ul style="list-style-type: none"> Do not recurse subfolders: Only monitor the folder. Do not monitor its subfolders. Monitor the folder and its subfolders (recursive): Monitor the folder and all of its subfolders. <ul style="list-style-type: none"> i If you recurse subfolders in large directories that have a high number of branches, this may cause timeout errors or performance issues.
If Folder Contents Change	<p>Specify if the sensor sends a notification when the content of the folder changes:</p> <ul style="list-style-type: none"> Ignore changes: Changes to the folder do not trigger a notification. Trigger 'change' notification: The sensor triggers a notification if a file changes its time stamp or file name, or if there are new or deleted files. Create a change trigger on the Notification Triggers tab of this sensor to receive a notification whenever there is a change.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <ul style="list-style-type: none"> i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.

Debug Options

Debug Options

Result Handling **i**

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <ul style="list-style-type: none"> i In a cluster, PRTG stores the result in the PRTG data directory of the master node.


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

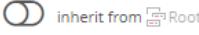
Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
	Scanning Interval ⓘ 60 seconds
	If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Execution Time	The execution time in milliseconds (msec)
File Count	<p>The number of files in the folder</p> <p>i The sensor counts all files in a folder, including hidden files.</p>
Folder Size	<p>The folder size in bytes</p> <p>i This channel is the primary channel by default.</p>
Newest File	<p>The time since the newest modification of a file in the folder (newest file)</p> <p>i The sensor shows a negative value if the date of a modified file is in the future.</p>
Oldest File	The time since the oldest modification of a file in the folder (oldest file)

More

■ KNOWLEDGE BASE

What can I do if PRTG doesn't succeed with monitoring a share? PE029 PE032





- <https://kb.paessler.com/en/topic/513>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

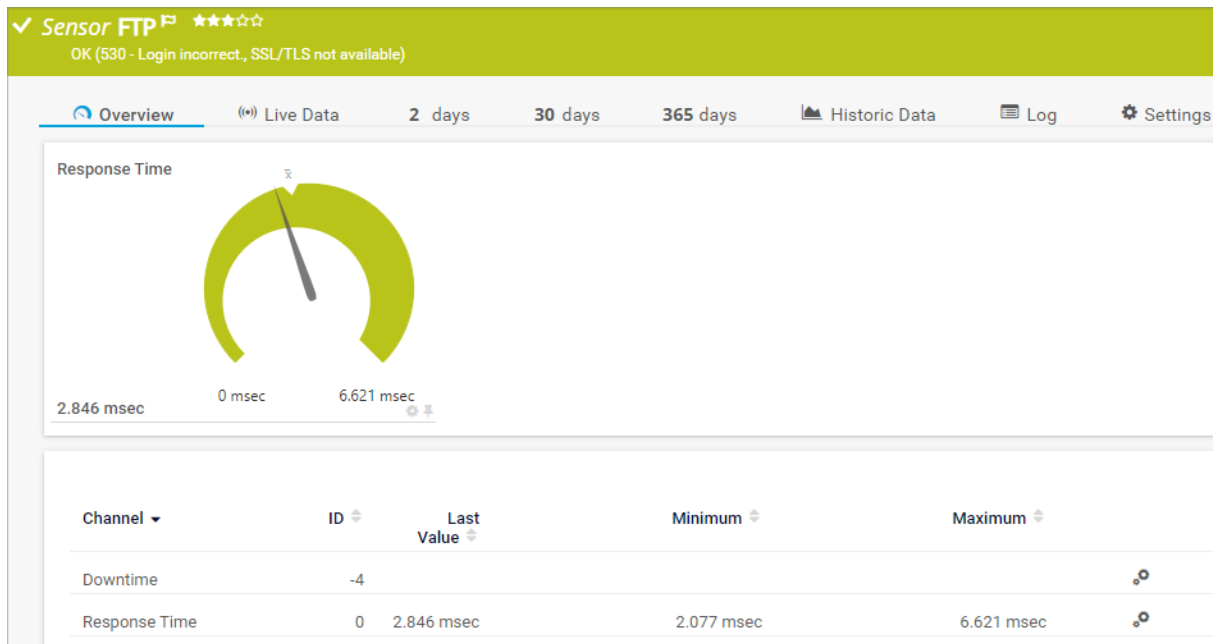
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.53 FTP Sensor

The FTP sensor monitors file servers via the File Transfer Protocol (FTP) and FTP over SSL (FTPS).

i The sensor also shows the response message of the server in the sensor message.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



FTP Sensor

Sensor in Other Languages

- Dutch: FTP
- French: FTP
- German: FTP
- Japanese: FTP
- Portuguese: FTP
- Russian: FTP
- Simplified Chinese: FTP
- Spanish: FTP

Remarks

- This sensor has a medium performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has a title bar 'Basic Sensor Settings' on the left. Below it, there are three rows of settings:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A tag input field containing 'exampletag' with a close button (X) and a plus button (+).
- Priority**: A star rating selector showing 3 stars out of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> ftpsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Specific

Sensor Specific

Timeout (Sec.) **i** 60

Port **i** 21

FTP Mode **i**
 Active mode
 Passive mode

Sensor Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
Port	<p>Enter the number of the FTP port that the sensor tries to connect to. Enter an integer value.</p> <p>i We recommend that you use the default value.</p> <p>i If the connection is unsuccessful, try a different port number.</p>
FTP Mode	<p>Define the FTP connection mode that the sensor uses for the connection to the FTP server:</p> <ul style="list-style-type: none"> Active mode: If you cannot establish a connection, use the passive mode.

Setting	Description
	<p>i We recommend that you use the default value.</p> <ul style="list-style-type: none"> Passive mode

Connection Security

Connection Security

Transport-Level Security **i**

Use transport-level security if available

Enforce transport-level security

Do not use transport-level security

Connection Security

Setting	Description
Transport-Level Security	<p>Specify if the sensor uses connection security:</p> <ul style="list-style-type: none"> Use transport-level security if available: The sensor tries to connect via Secure Sockets Layer (SSL)/Transport Layer Security (TLS). It automatically determines whether to connect via the explicit mode or the implicit mode. If the server does not support SSL/TLS, the sensor tries to connect without connection security and shows the Up status if this works. Enforce transport-level security: The connection must be established via SSL/TLS (in the explicit mode or the implicit mode). Otherwise, the sensor shows the Down status. Do not use transport-level security: The sensor connects to the FTP server without connection security. <p>i See the sensor logs to see which method the sensor previously used to connect to the FTP server.</p>

Authentication

Authentication

User Name **i**

Password **i**

Result Handling **i**

Discard result

Store result

Authentication

Setting	Description
User Name	<p>Enter a user name for the FTP login. Enter a string or leave the field empty.</p> <p>i The default user name is "anonymous". If the sensor cannot log on to the FTP server with this user name (or a different user name that you define), the sensor message shows that the credentials are incorrect but the sensor remains in the Up status.</p>
Password	<p>Enter a password for the FTP login. Enter a string or leave the field empty.</p> <p>i If the sensor cannot log on to the FTP server with this password, the sensor message shows that the credentials are incorrect but the sensor remains in the Up status.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display


Sensor Display

Primary Channel Downtime


Graph Type Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>

Setting	Description
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes

Setting	Description
	<ul style="list-style-type: none"> ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
Response Time	The response time in milliseconds (msec)  This channel is the primary channel by default.

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

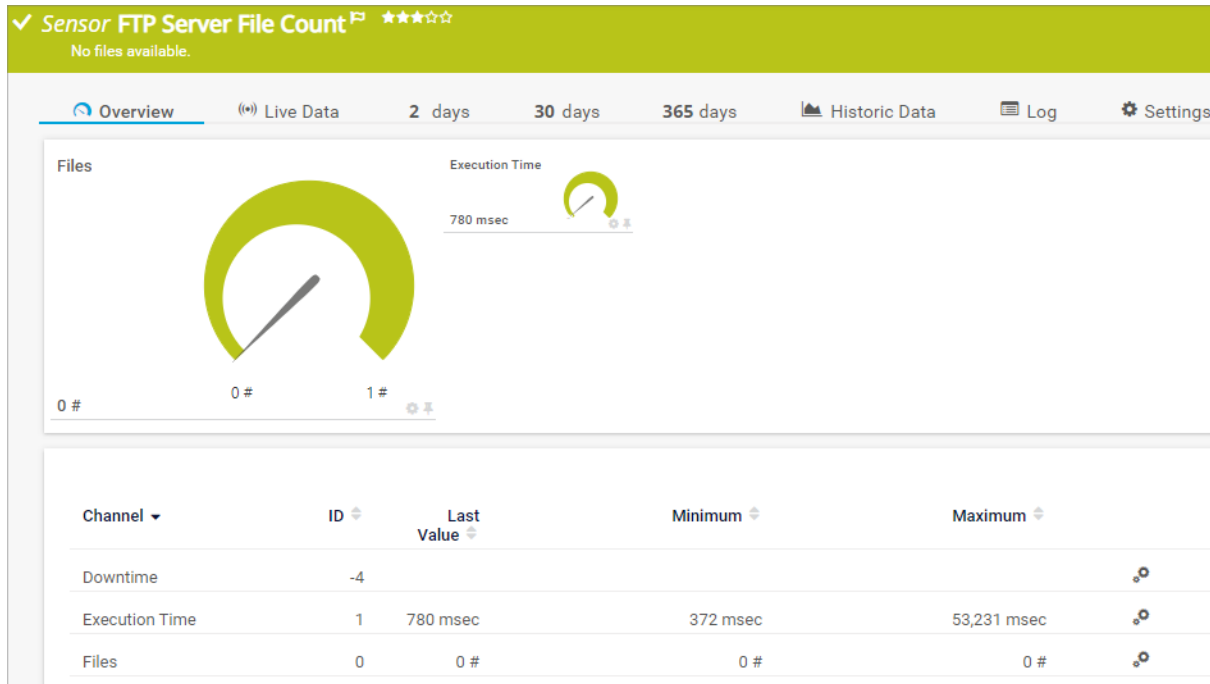
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.54 FTP Server File Count Sensor

The FTP Server File Count sensor logs in to a File Transfer Protocol (FTP) server and can monitor changes to files.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



FTP Server File Count Sensor

Sensor in Other Languages



- Dutch: FTP Server File Aantal
- French: Nombre de fichiers du serveur FTP
- German: FTP-Server Dateienanzahl
- Japanese: FTP サーバーファイルカウント
- Portuguese: Contagem de arquivos no FTP
- Russian: FTP-
- Simplified Chinese: FTP 服务器文件计数
- Spanish: Número de archivos en el servidor FTP

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires .NET 4.7.2 or later on the probe system. If the sensor shows the error PE087, additionally install .NET 3.5 on the probe system.
- This sensor supports the IPv6 protocol.

- We recommend Windows 2012 R2 on the probe system for best performance of this sensor.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.


Basic Sensor Settings




Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name' with an information icon.
- Tags:** A list box containing 'exampletag' with a close button (X) and an add button (+).
- Priority:** A section with an information icon and five star icons, three of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p> If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p>

Setting	Description
	<p> This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ¹⁴⁵.</p> <p> It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p> For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none">▪ ptfsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Sensor Settings

Sensor Settings

FTP Mode ⓘ Active mode
 Passive mode

Check Method ⓘ URL
 Folder on parent device

FTP URL ⓘ

User Name ⓘ

Password ⓘ






File Count ⓘ Total number of files
 Only new files

Connection Security ⓘ Do not use transport-level security
 Enforce transport-level security

If Value Changes ⓘ Ignore changes
 Trigger 'change' notification

Sesnor Settings

Setting	Description
FTP Mode	<p>Define the FTP connection mode that the sensor uses for the connection to the FTP server:</p> <ul style="list-style-type: none"> Active mode: If you cannot establish a connection, use the passive mode. <p> ⓘ We recommend that you use the default value.</p> <ul style="list-style-type: none"> Passive mode
Check Method	<p>Define how to access the FTP server directory that this sensor monitors:</p> <ul style="list-style-type: none"> URL: The sensor uses a URL of an FTP server to access the target directory. Define the URL below. Folder on parent device: The sensor uses the IP address or Domain Name System (DNS) name of the parent device and monitors a folder on this device. Define the folder below.
FTP URL	<p>This setting is only visible if you select URL above. Enter the URL that this sensor checks. The URL can look like this: ftp://10.0.0.1/upload</p>

Setting	Description
	<p> If you use this method, this sensor does not use the IP Address/DNS Name of the parent device.</p> <p> You can add a port number to the URL by using a colon, for example ftp://10.0.0.1/upload:21.</p>
FTP Port	This setting is only visible if you select Folder on parent device above. Enter the number of the port to which this sensor connects. The default port is 21.
FTP Folder	This setting is only visible if you select Folder on parent device above. Enter the name of the folder on the parent device that this sensor monitors, for example upload .
Recurse Subfolders	<p>This setting is only visible if you select Folder on parent device above. Define if the sensor additionally monitors the subfolders of the FTP folder:</p> <ul style="list-style-type: none"> ▪ Do not recurse subfolders: Only monitor the folder. Do not monitor its subfolders. ▪ Monitor the folder and its subfolders (recursive): Monitor the folder and all of its subfolders. <ul style="list-style-type: none">  If you recurse subfolders in large directories that have a high number of branches, this may cause timeout errors or performance issues.
User Name	Enter the user name for the login to the FTP server. Enter a string.
Password	Define the password for the login to the FTP server. Enter a string.
File Count	<p>Define which files the sensor counts:</p> <ul style="list-style-type: none"> ▪ Total number of files: Always show the total number of all files in the folder. ▪ Only new files: Only show the number of new files since the last scanning interval. You can define the frequency of sensor scans in section Scanning Interval¹¹⁴⁴. <p> With every scanning interval, the sensor considers any new files from the previous scanning interval to be old.</p>
Connection Security	<p>Define the security of the connection:</p> <ul style="list-style-type: none"> ▪ Do not use transport-level security: The sensor connects without connection security. ▪ Enforce transport-level security: The sensor establishes the connection to the FTP server via Secure Sockets Layer (SSL)/Transport Layer Security (TLS) in explicit mode. <p> This sensor only supports SSL/TLS in explicit mode.</p>

Setting	Description
If Value Changes	<p>Define what the sensor does when the sensor value changes:</p> <ul style="list-style-type: none"> Ignore changes (default): Take no action on change. Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger, you can use this mechanism to trigger a notification whenever the sensor value changes.

Debug Options

Debug Options

Result Handling ⓘ Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>




Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights


inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**


Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Execution Time	The execution time in milliseconds (msec)
Files	The number of files that are available in the directory listing  This channel is the primary channel by default.

More

KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

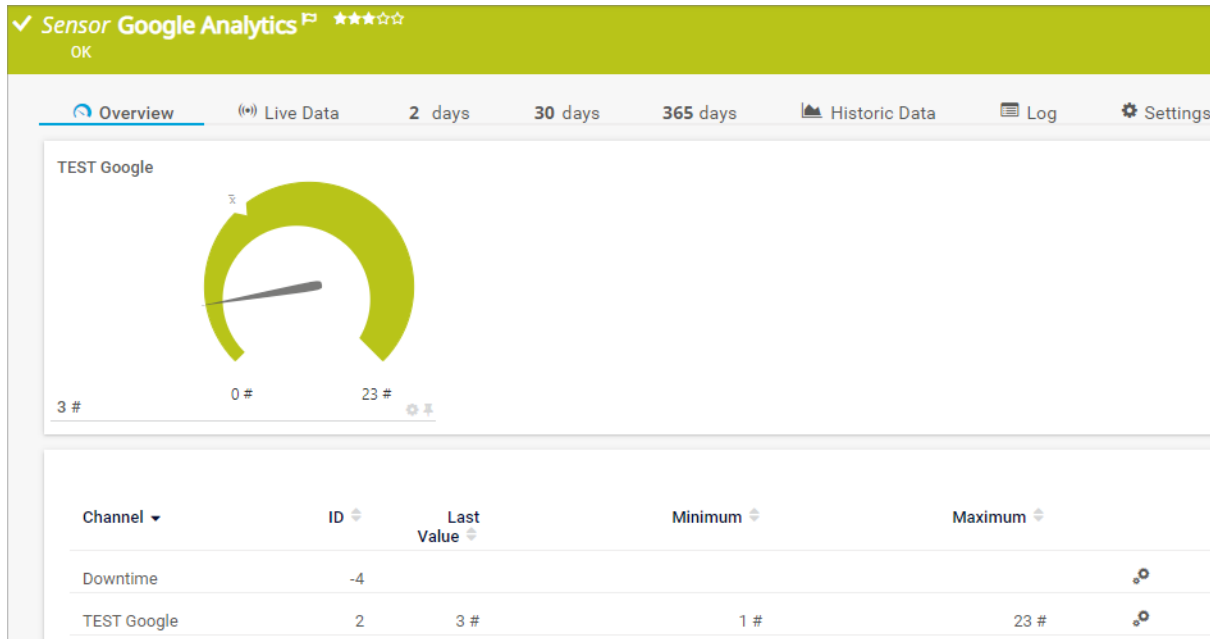
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.55 Google Analytics Sensor

The Google Analytics sensor queries and monitors several metrics from a Google Analytics account via the Google application programming interface (API) and Open Authorization 2 (OAuth2).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Google Analytics Sensor

Sensor in Other Languages

- Dutch: Google Analytics
- French: Google Analytics
- German: Google Analytics
- Japanese: Google Analytics
- Portuguese: Google Analytics
- Russian: Google Analytics
- Simplified Chinese: Google Analytics
- Spanish: Google Analytics

Remarks

- The minimum scanning interval for this sensor is 30 minutes.
- For details about OAuth2 authentication, see section [Authentication via OAuth2](#).
- This sensor has a low performance impact.
- Some dimensions and metrics cannot be queried together. See the Knowledge Base: [Where do I find available Google Analytics metrics?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG requires OAuth2 authorization before you can add this sensor. Provide the required credentials in the dialog box that appears.

Google Credentials

This sensor uses OAuth2 authentication to get access to your Google account.

For details about this authentication approach, see section [Authentication via OAuth2](#).

Google Credentials

Setting	Description
OAuth URL	<p>Click Get Access Code to connect this sensor to your Google Analytics account via OAuth2. This is necessary to allow the sensor to query data from Google Analytics. A new browser window appears.</p> <p>Follow the steps in the browser window and confirm the permission for PRTG to connect to your Google Analytics account. Copy the OAuth code you get and paste it into the OAuth Code field below.</p>
OAuth Code	<p>Paste the access code that you receive after completing the authorization process for PRTG in your Google Analytics account.</p> <p>i It is mandatory to connect this sensor to your Google Analytics account to create this sensor. Complete the OAuth approach first to get the OAuth code.</p>

Setting	Description
	Click OK to define the sensor settings .

Google Analytics Specific

Setting	Description
Profile	Select the Google Analytics profile that you want to monitor.
Channel #2 – #10	<p>You can create up to 10 different channels for this sensor. You have to define at least one data channel, so you already see all available settings for Channel #1. Additionally, you can define Channel #2 up to Channel #10. To do so, choose between:</p> <ul style="list-style-type: none"> ▪ Disable: Do not create this channel. ▪ Enable: Create this channel. Define further settings below. <p>i It is not possible to enable or disable channels after sensor creation.</p>
Channel #x Mode	<p>Define how to display the retrieved value in the channel:</p> <ul style="list-style-type: none"> ▪ Absolute (recommended): Show the value as the sensor retrieves it from Google Analytics. ▪ Difference: Calculate and show the difference between the last value and the most recent value retrieved from Google Analytics. <p>i This mode is not compatible with the unit Lookup.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ X +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
OAuth Code	Shows the authorization code that the sensor uses to access your Google Analytics account. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Google Analytics Specific

Google Analytics Specific

Profile ⓘ *PAM*

Time Span ⓘ Last week (default)
 Yesterday
 Today

Channel #1 Name ⓘ *Number of Users*

Channel #1 Metric ⓘ *Users*




Channel #1 Mode ⓘ *Absolute (recommended)*

Channel #1 Unit ⓘ *Count*

Channel #2 ⓘ *Disable*

Google Analytics Specific

Setting	Description
Profile	Shows the Google Analytics profile that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Time Span	Define the time span that the queried monitoring covers: <ul style="list-style-type: none"> ▪ Last week (default) ▪ Yesterday ▪ Today

Setting	Description
Channel #x Name	Enter a name for the channel in which the sensor shows the results for the metric you choose below. Enter a string.
Channel #x Metric	Select the metric that you want to monitor. You can choose between available Google Analytics metrics. If the metric that you want to monitor is not in the list, select Custom Metric and specify it below.
Channel #x Custom Metric	This setting is only visible if you select Custom Metric above. Enter the identifier of the metric that you want to monitor. Enter it exactly as it is shown in Google Analytics. Metric identifiers always start with ga: . Enter a string.
Channel #x Mode	Shows how the sensor displays the retrieved value in the channel.  PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Channel #x Unit	Define the unit of the channel value: <ul style="list-style-type: none"> ▪ BytesBandwidth ▪ BytesMemory ▪ BytesDisk ▪ Temperature ▪ Percent ▪ TimeResponse ▪ TimeSeconds ▪ TimeHours ▪ Count ▪ CPU ▪ BytesFile ▪ SpeedDisk ▪ SpeedNet ▪ Custom ▪ Lookup <p> For more information about the available units, see section Custom Sensors⁴⁴⁴².</p> <p> To use lookups⁴⁴⁹⁵ with this channel, select Lookup and define the lookup file in Channel #x Lookup. Do not use the unit Custom for lookups with this sensor and do not use the channel settings³⁹⁷⁷ to define a lookup file.</p>

Setting	Description
	<p>i Using the unit Lookup is not possible when you choose the Difference mode. You are not able to create the sensor in this case.</p>
Channel #x Custom Unit	This setting is only visible if you select Custom above. Define a unit for the channel value. Enter a string.
Channel #x Lookup	This setting is only visible if you select Lookup above. Choose the lookup file that you want to use for this channel.
Channel #2 – #10	Shows if you enabled or disabled a channel. <p>i You can define up to 10 different channels per sensor.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display

Primary Channel **i** Downtime


Graph Type **i**
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.


Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#)^[142].



Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

 This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#)^[4167] settings are not available for this sensor.

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours

Setting	Description
	<ul style="list-style-type: none"> ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p> <p> ⓘ The minimum scanning interval for this sensor is 30 minutes.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p> ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p> ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p> ⓘ If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Authentication via OAuth2

This sensor uses the OAuth2 security protocol to access the account from which you want to retrieve and monitor data. OAuth2 enables you to grant access to the target account without sharing your password with PRTG. The authorization approach of PRTG using OAuth2 works as follows.

1. Authorization Request

First, you have to request authorization for this sensor to access service resources from your account. For this purpose, you are asked to get an access code for this sensor in the Add Sensor dialog. Click Get Access Code to start the authorization process using OAuth2. A new browser window opens on the authorization server of the target service.

2. Verifying Identity

This new window contains a login form for your account that you want to monitor. Log in to your account using your credentials for this service to authenticate your identity. This is a common login to your account on the target server so PRTG does not see your password. The service forwards you to the authorization page and asks you to permit PRTG to access the data in your account.

i If you are already logged in to the service with a user account, you do not have to enter credentials in this step and get directly to the access permission page.

3. Authorizing PRTG

Permit PRTG to access information on your account. Note that this permission holds only for this specific sensor, not for other sensors of this type or PRTG as a whole. For each sensor of this type you add, you have to confirm the access permission anew. You can change the account permissions at any time in your account at the target service.

4. Getting Authorization Code

Permitting PRTG to access your account data forwards you to a page where the service provides an authorization code. Copy this code and switch back to the Add Sensor dialog in PRTG.

i The code is only valid for a short period of time and expires after a few minutes. You can use a particular code only once.

5. Providing Authorization Code

Paste the authorization code into the OAuth Code field and complete the Add Sensor dialog. You do not have to go through further configuration steps manually. The sensor automatically accomplishes the following steps.

6. Requesting Access Token

After receiving the authorization code, PRTG requests an access token from the API of the target service. For this purpose, PRTG transmits the authorization code together with several authentication details. The API checks if the authorization is valid and returns the access token to PRTG. Access tokens are specific for one account and one application (here: PRTG). The authorization process to read data from your account is now complete.

7. Retrieving Data

The sensor transmits the access token with each sensor scan in the defined scanning interval to authenticate with your account. It is not necessary to use the original account credentials anew. The used tokens refresh automatically from time to time.

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Metric]	The values for all available Google Analytics metrics in several channels

More

■ KNOWLEDGE BASE

Where do I find available Google Analytics metrics?





- <https://kb.paessler.com/en/topic/35373>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

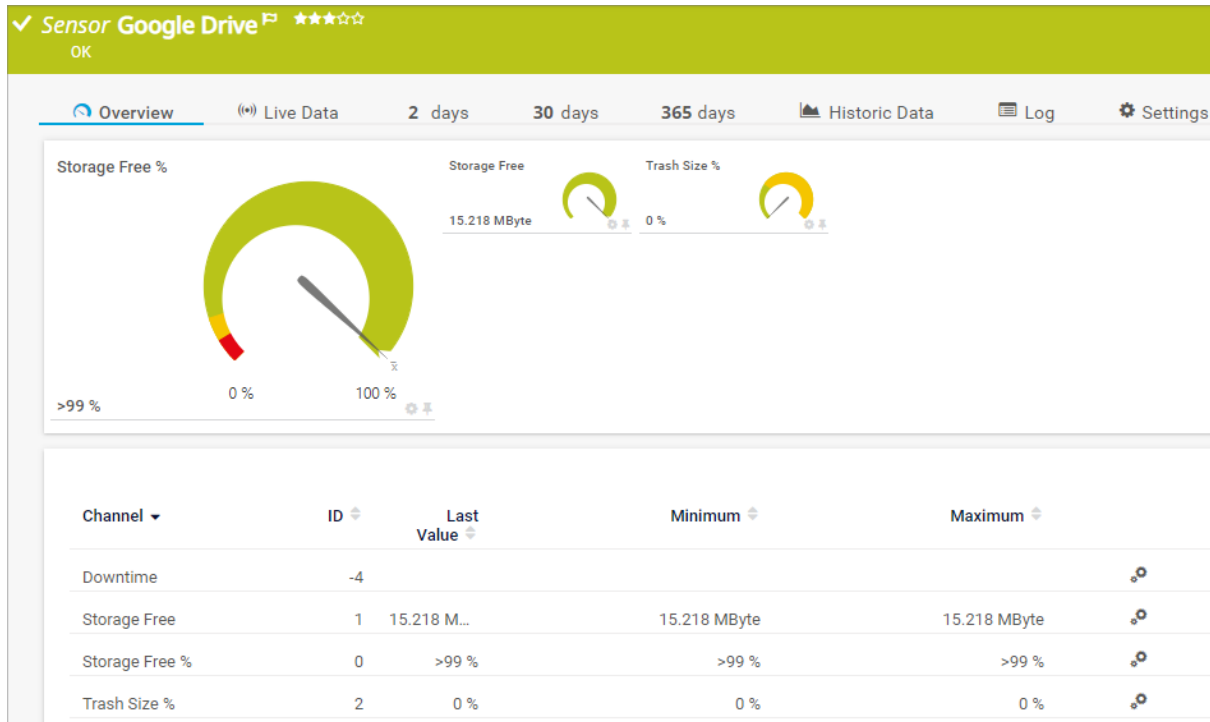
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.56 Google Drive Sensor

The Google Drive sensor monitors a Google Drive account via the Google application programming interface (API) and Open Authorization 2 (OAuth2).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Google Drive Sensor

Sensor in Other Languages

- Dutch: Google Drive
- French: Google Drive
- German: Google Drive
- Japanese: Google ドライブ
- Portuguese: Google Drive
- Russian: Google
- Simplified Chinese: Google Drive
- Spanish: Google Drive

Remarks

- The minimum scanning interval for this sensor is 30 minutes.
- For details about OAuth2 authentication, see section [Authentication via OAuth2](#).
- This sensor has a low performance impact.

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG requires OAuth2 authorization before you can add this sensor. Provide the required credentials in the dialog box that appears.

Google Credentials

This sensor uses OAuth2 authentication to get access to your Google account.

■ For details about this authentication approach, see section [Authentication via OAuth2](#) ¹¹⁷⁸.

Google Credentials

Setting	Description
OAuth URL	<p>Click Get Access Code to connect this sensor to your Google Drive account via OAuth2. This is necessary to allow the sensor to query data from Google Drive. A new browser window appears.</p> <p>Follow the steps in the browser window and confirm the permission for PRTG to connect to your Google Drive account. Copy the OAuth code you get and paste it into the OAuth Code field below.</p>
OAuth Code	<p>Paste the access code that you receive after completing the authorization process for PRTG in your Google Drive account.</p> <p>i It is mandatory to connect this sensor to your Google Drive account to create this sensor. Complete the OAuth approach first to get the OAuth code.</p>

Setting	Description
	Click OK to define the sensor settings .




Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.


The screenshot shows the 'Basic Sensor Settings' configuration window. It includes a title bar, a 'Sensor Name' field with an information icon and the value 'Example Name', a 'Tags' field with an information icon, a list containing 'exampletag' with a delete 'x' icon and an add '+' icon, and a 'Priority' field with an information icon and five star icons, three of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[3977]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


 For more information, see section [Inheritance of Settings](#)^[142].



Scanning Interval


Click  to interrupt the [inheritance](#)^[142].

 This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#)^[4167] settings are not available for this sensor.

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p> <p> ⓘ The minimum scanning interval for this sensor is 30 minutes.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails.

Setting	Description
	<p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** None



Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>


Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none">▪ Bandwidth▪ Memory▪ Disk▪ File▪ Custom <p> Custom channel types are only available on sensor level.</p>

Authentication via OAuth2


 This sensor uses the OAuth2 security protocol to access the account from which you want to retrieve and monitor data. OAuth2 enables you to grant access to the target account without sharing your password with PRTG. The authorization approach of PRTG using OAuth2 works as follows.

1. Authorization Request

First, you have to request authorization for this sensor to access service resources from your account. For this purpose, you are asked to get an access code for this sensor in the Add Sensor dialog. Click Get Access Code to start the authorization process using OAuth2. A new browser window opens on the authorization server of the target service.

2. Verifying Identity

This new window contains a login form for your account that you want to monitor. Log in to your account using your credentials for this service to authenticate your identity. This is a common login to your account on the target server so PRTG does not see your password. The service forwards you to the authorization page and asks you to permit PRTG to access the data in your account.


 If you are already logged in to the service with a user account, you do not have to enter credentials in this step and get directly to the access permission page.

3. Authorizing PRTG

Permit PRTG to access information on your account. Note that this permission holds only for this specific sensor, not for other sensors of this type or PRTG as a whole. For each sensor of this type you add, you have to confirm the access permission anew. You can change the account permissions at any time in your account at the target service.

4. Getting Authorization Code

Permitting PRTG to access your account data forwards you to a page where the service provides an authorization code. Copy this code and switch back to the Add Sensor dialog in PRTG.

 The code is only valid for a short period of time and expires after a few minutes. You can use a particular code only once.

5. Providing Authorization Code

Paste the authorization code into the OAuth Code field and complete the Add Sensor dialog. You do not have to go through further configuration steps manually. The sensor automatically accomplishes the following steps.

6. Requesting Access Token

After receiving the authorization code, PRTG requests an access token from the API of the target service. For this purpose, PRTG transmits the authorization code together with several authentication details. The API checks if the authorization is valid and returns the access token to PRTG. Access tokens are specific for one account and one application (here: PRTG). The authorization process to read data from your account is now complete.

7. Retrieving Data

The sensor transmits the access token with each sensor scan in the defined scanning interval to authenticate with your account. It is not necessary to use the original account credentials anew. The used tokens refresh automatically from time to time.

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Storage Free	The free storage in bytes
Storage Free %	The free storage in percent i This channel is the primary channel by default.
Trash Size	The trash size in percent

More





■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

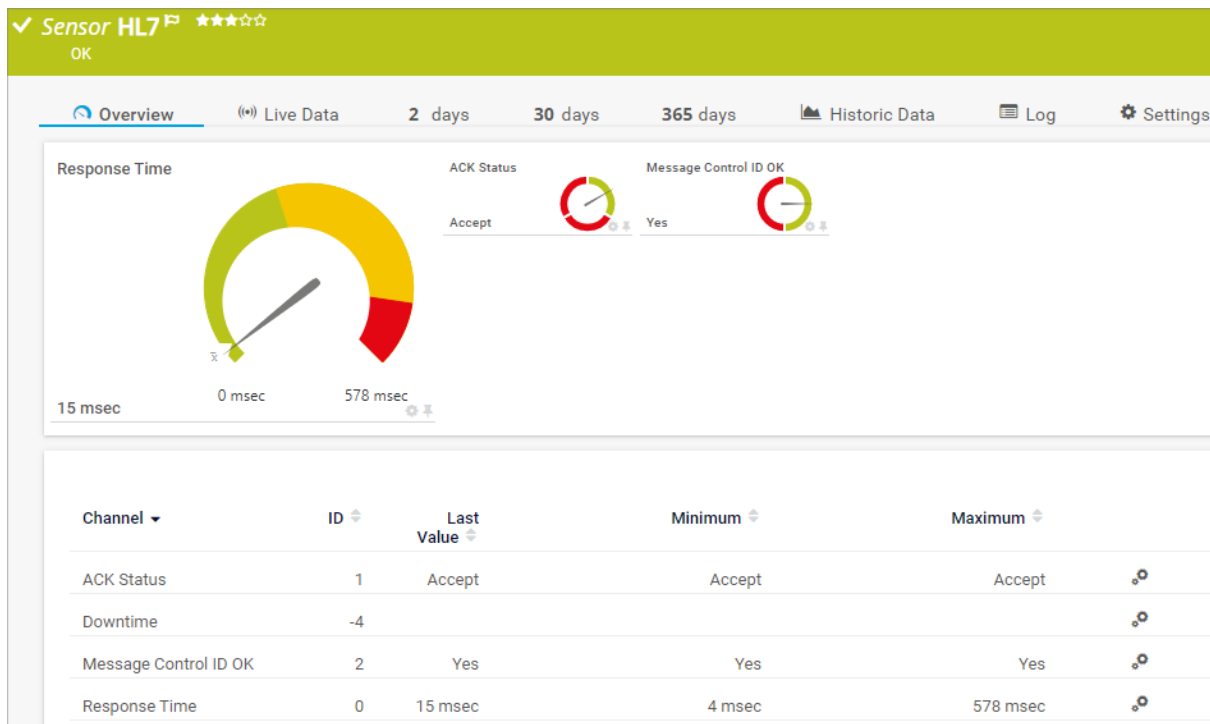
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.57 HL7 Sensor

The HL7 sensor monitors the availability of Health Level 7 (HL7) interfaces. It sends an HL7 message to the target device and checks for a valid response.

i You can define your own messages in HL7 format as .hl7 files in the [PRTG program directory](#).
The sensor sends them to the HL7-capable system with each scanning interval.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



HL7 Sensor

Sensor in Other Languages



- Dutch: HL7
- French: HL7
- German: HL7
- Japanese: HL7
- Portuguese: HL7
- Russian: HL7
- Simplified Chinese: HL7
- Spanish: HL7

Remarks

- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor supports the IPv6 protocol.

- This sensor has a medium performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).



Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

HL7 Message Specific

Setting	Description
HL7 Messages	<p>Select an HL7 file from the list. The sensor sends it to the target device with every scanning interval.</p> <p>The list shows all files that are available in the \Custom Sensors\hl7 subfolder of the PRTG program directory on the probe system. For files to appear in this list, store them in this subfolder with the extension .hl7.</p> <p> To be accepted by the HL7 interface, your files must have the expected HL7 message format. PRTG comes with two sample HL7 message files that you can use to test your HL7 monitoring and to have a look at the expected format. These files are in the \Custom Sensors\hl7 subfolder.</p> <p> You can override certain headers using the Message Header (MSH) sensor setting.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag X +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dicom ▪ hl7
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HL7 Connection

HL7 Connection

Port ⓘ

1204

Timeout (Sec.) ⓘ

60

HL7 Connection

Setting	Description
Port	Enter the port of the HL7 interface that the sensor uses for the connection.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p> ⓘ If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

HL7 Message Specific

HL7 Message Specific

Message Header ⓘ

Default message header
 Override message header

HL7 Message ⓘ

ORM_01_MEDICO.hl7

HL7 Message Specific

Setting	Description
Message Header	<p>Define if you want to use the default message header (MSH) as defined in the selected HL7 message file or if you want to override certain headers:</p> <ul style="list-style-type: none"> ▪ Default message header: Send the MSH as defined in the HL7 message file. ▪ Override message header: Define a custom MSH below that overrides the MSH in the HL7 message file.
Sending Application	<p>This setting is only visible if you select Override message header above. Enter the name of the sending application, for example, PRTG. It overrides the default value in the message. Enter a string.</p>

Setting	Description
Sending Facility	This setting is only visible if you select Override message header above. Enter the name of the sending facility. It overrides the default value in the message. Enter a string.
Receiving Application	This setting is only visible if you select Override message header above. Enter the name of the receiving application. It overrides the default value in the message. Enter a string.
Receiving Facility	This setting is only visible if you select Override message header above. Enter the name of the receiving facility. It overrides the default value in the message. Enter a string.
HL7 Message	Shows the HL7 message file that the sensor uses to send the message with each scanning interval. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Debug Options

Debug Options

Result Handling i

Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
ACK Status	<p>Acknowledgment (ACK) status</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: Accept ▪ Down status: Error, Reject
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Message Control ID OK	<p>The message control ID status</p> <ul style="list-style-type: none"> ▪ Up status: Yes ▪ Down status: No
Response Time	<p>The response time in milliseconds (msec)</p> <p> This channel is the primary channel by default.</p>

More

KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

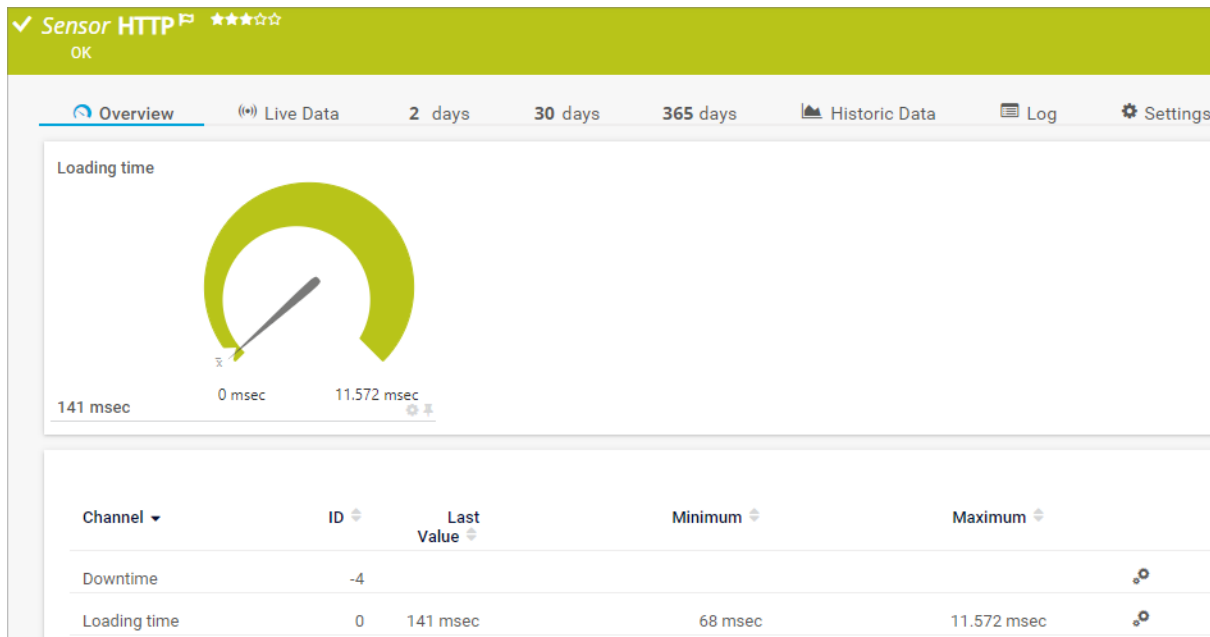
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3967

7.8.58 HTTP Sensor

The HTTP sensor monitors a web server using HTTP.

i You can use this sensor to monitor if a website or a specific website element is reachable.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



HTTP Sensor

Sensor in Other Languages

- Dutch: HTTP
- French: HTTP
- German: HTTP
- Japanese: HTTP
- Portuguese: HTTP
- Russian: HTTP
- Simplified Chinese: HTTP
- Spanish: HTTP

Remarks

- This sensor does not support Secure Remote Password (SRP) ciphers.
- This sensor supports smart URL replacement.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

- See the Knowledge Base: [My HTTP sensors fail to monitor websites which use SNI. What can I do?](#)
- See the Knowledge Base: [Which HTTP status code leads to which HTTP sensor status?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ httpsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HTTP Specific

HTTP Specific

Timeout (Sec.) **i**

URL **i**









Request Method **i** GET
 POST
 HEAD

Server Name Indication **i**

SNI Inheritance **i** Inherit SNI from parent device
 Do not inherit SNI from parent device

HTTP Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
URL	<p>Enter the URL that the sensor connects to. If you enter an absolute URL, the sensor uses this address independently of the IP Address/DNS Name setting of the parent device. You can enter the URL of a web page (to measure the loading time of the page's source code), or enter the URL of an image or of a page asset to measure this element's availability and loading time.</p>

Setting	Description
	<p> The URL must be URL encoded.</p> <p> If you monitor an image or a page asset, this can create a high amount of memory load. We recommend that the size of the elements that you want to monitor does not exceed 200 MB.</p> <p> PRTG uses a smart URL replacement with which you can use the parent device's IP address or Domain Name System (DNS) name setting as part of the URL. For more information, see section Smart URL Replacement ¹²⁰².</p>
Request Method	<p>Select an HTTP request method to determine how the sensor requests the URL:</p> <ul style="list-style-type: none"> ▪ GET: Directly request the website. <ul style="list-style-type: none">  We recommend that you use this setting for a simple check of the web page. ▪ POST: Send post form data to the URL. <ul style="list-style-type: none">  If you select this setting, you must enter the data in the Postdata field below. ▪ HEAD: Only request the HTTP header from the server without the actual web page. <ul style="list-style-type: none">  Although this saves bandwidth because it transfers less data, we do not recommend that you use this. This is because the measured request time is not the one that your users experience and you might not be notified of slow results or timeouts.
Postdata	<p>This setting is only visible if you select POST above. Enter the data part for the POST request.</p> <p> No Extensible Markup Language (XML) is allowed here.</p>
Content Type	<p>This setting is only visible if you select POST above. Define the content type of the POST request:</p> <ul style="list-style-type: none"> ▪ Default (application/x-www-form-urlencoded): Use the default content type to encode the form data set for submission to the server. ▪ Custom: Use a custom content type. Enter the content type below.
Custom Content Type	<p>This setting is only visible if you select Custom above. Define the custom content type, for example, XML, JavaScript Object Notation (JSON), or HTTP.</p>
Server Name Indication	<p>Shows the Server Name Identification (SNI) that the sensor automatically determines from the host address of the parent device ⁴⁴⁷ or from the target URL of the sensor.</p> <p> The SNI must be a fully qualified domain name (FQDN). Make sure that it matches the configuration of the target server.</p>

Setting	Description
	<p>■ For details, see the Knowledge Base: My HTTP sensors fail to monitor websites which use SNI. What can I do?</p> <p>ⓘ This sensor implicitly supports SNI, an extension to the Transport Layer Security (TLS) protocol.</p>
SNI Inheritance	<p>Define if you want to inherit the SNI from the parent device:</p> <ul style="list-style-type: none"> ▪ Inherit SNI from parent device: Determine the SNI from the host address of the parent device. ▪ Do not inherit SNI from parent device: Determine the SNI from the target URL as defined in the settings of this sensor.

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking ⚙ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#)^[142].





Proxy Settings for HTTP Sensors

Click  to interrupt the [inheritance](#)^[142].



The proxy settings determine how a sensor connects to a URL. You can enter data for an HTTP proxy server that sensors use when they connect via HTTP or HTTPS.

 This setting only applies to HTTP sensors and how they monitor. To change the proxy settings for the PRTG core server, see section [Core & Probes](#)^[4203].

Proxy Settings for HTTP Sensors

IP Address/DNS Name 	192.0.2.0
Port 	8080
User Name 	johnqpublic
Password	.....

Proxy Settings for HTTP Sensors



Setting	Description
IP Address/DNS Name	Enter the IP address or Domain Name System (DNS) name of the proxy server. If you leave this field empty, HTTP sensors do not use a proxy.
Port	Enter the port number of the proxy. The default is 8080. Enter an integer value.
User Name	<p>If the proxy requires authentication, enter the user name for the proxy login.</p> <p> Only basic authentication is available. Enter a string or leave the field empty.</p>
Password	<p>If the proxy requires authentication, enter the password for the proxy login.</p> <p> Only basic authentication is available. Enter a string or leave the field empty.</p>

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management.</p>

Smart URL Replacement

Instead of entering a complete address in the URL field of an HTTP sensor, you can only enter the protocol followed by a colon and three forward slashes (this means that you can enter either [http://](#) or [https://](#), or even a simple forward slash / as the equivalent for [http://](#)). PRTG automatically fills in the parent device's IP address or DNS name in front of the third forward slash.

Whether this results in a valid URL or not depends on the IP address or Domain Name System (DNS) name of the parent device. In combination with cloning devices, you can use smart URL replacement to create many similar devices.


For example, if you create a device with the DNS name [www.mycompany.com](#) and you add an HTTP sensor to it, you can provide values in the following ways:

- If you enter [https://](#) in the URL field, PRTG automatically creates the URL [https://www.mycompany.com/](#)
- If you enter [/help](#) in the URL field, PRTG automatically creates and monitor the URL [http://www.mycompany.com/help](#)
- It is also possible to provide a port number in the URL field. It is taken over by the device's DNS name and is internally added, for example, [http://:8080/](#)

i Smart URL replacement does not work for sensors that run on the probe device.

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Loading Time	The loading time of the web page or element in milliseconds (msec)  This channel is the primary channel by default.

More

KNOWLEDGE BASE

My HTTP sensors fail to monitor websites which use SNI. What can I do?

- <https://kb.paessler.com/en/topic/67398>

Which HTTP status code leads to which HTTP sensor status?

- <https://kb.paessler.com/en/topic/65731>

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My HTTP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/85284>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

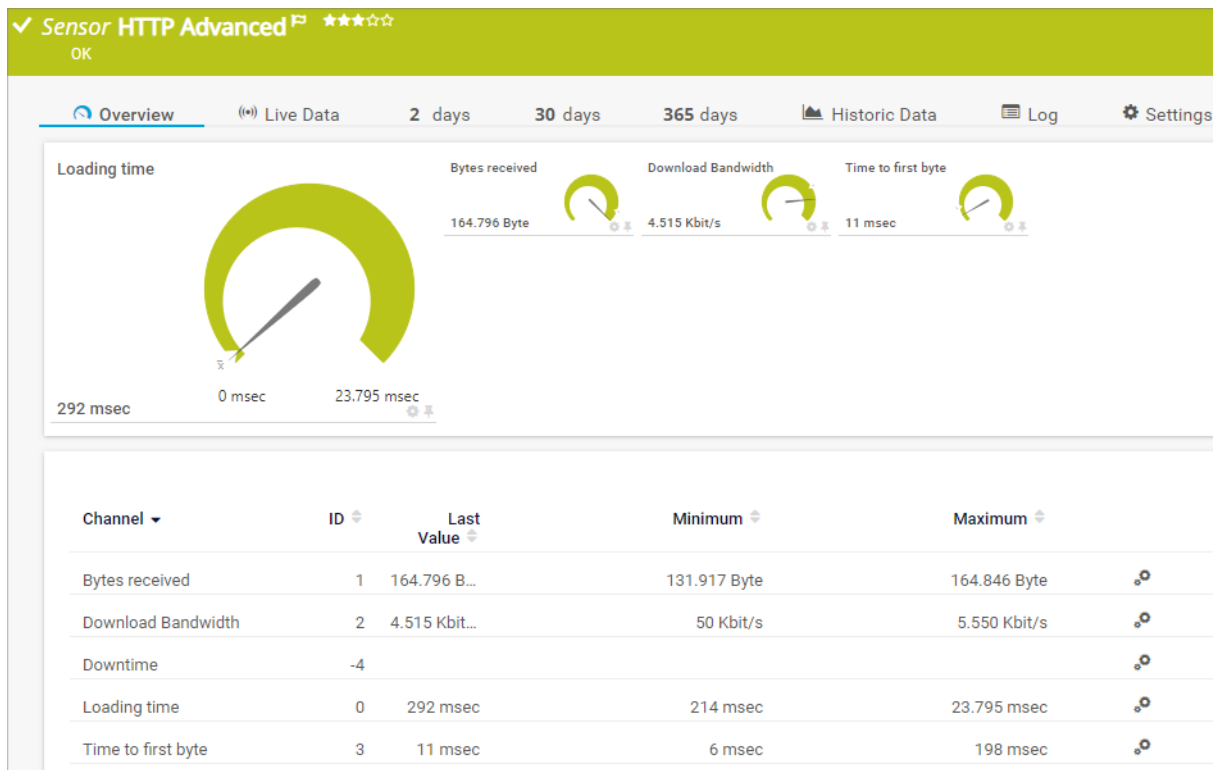
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.59 HTTP Advanced Sensor

The HTTP Advanced sensor monitors the source code of a web page using HTTP. It supports authentication, content checks, and other advanced parameters.

i The monitored content size is uncompressed.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



HTTP Advanced Sensor

Sensor in Other Languages

- Dutch: HTTP Geavanceerd
- French: HTTP (avancé)
- German: HTTP (Erweitert)
- Japanese: HTTP アドバンスト
- Portuguese: HTTP avançado
- Russian: HTTP ()
- Simplified Chinese: HTTP 高级
- Spanish: HTTP Avanzado

Remarks

- This sensor does not support Secure Remote Password (SRP) ciphers. If you need to use SRP ciphers, use the Alternate/Compatibility Mode in the sensor settings.

- This sensor does not support HTTP compression. If you need to use HTTP compression, use the Alternate/Compatibility Mode in the sensor settings.
- This sensor supports smart URL replacement.
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- Bandwidth monitoring of fast internet connections may be inaccurate.
- See the Knowledge Base: [Which user agent should I use in the HTTP Advanced sensor's settings?](#)
- See the Knowledge Base: [My HTTP sensors fail to monitor websites which use SNI. What can I do?](#)
- See the Knowledge Base: [Which HTTP status code leads to which HTTP sensor status?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ httpsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HTTP Specific

HTTP Specific

Timeout (Sec.) **i**

URL **i**

Request Method **i** GET
 POST
 HEAD

Server Name Indication **i**

SNI Inheritance **i** Inherit SNI from parent device
 Do not inherit SNI from parent device

HTTP Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
URL	<p>Enter the URL that the sensor connects to. If you enter an absolute URL, the sensor uses this address independently of the IP Address/DNS Name setting of the parent device. You can enter the URL of a web page (to measure the loading time of the page's source code), or enter the URL of an image or of a page asset to measure this element's availability and loading time.</p> <p>i The URL must be URL encoded.</p> <p>i If you monitor an image or a page asset, this can create a high amount of memory load. We recommend that the size of the elements that you want to monitor does not exceed 200 MB.</p> <p>■ PRTG uses a smart URL replacement with which you can use the parent device's IP address or Domain Name System (DNS) name setting as part of the URL. For more information, see section Smart URL Replacement ¹²²¹.</p>
Request Method	<p>Select an HTTP request method to determine how the sensor requests the URL:</p> <ul style="list-style-type: none"> ▪ GET: Directly request the website. <ul style="list-style-type: none"> i We recommend that you use this setting for a simple check of the web page. ▪ POST: Send post form data to the URL. <ul style="list-style-type: none"> i If you select this setting, you must enter the data in the Postdata field below. ▪ HEAD: Only request the HTTP header from the server without the actual web page. <ul style="list-style-type: none"> i Although this saves bandwidth because it transfers less data, we do not recommend that you use this. This is because the measured request time is not the one that your users experience and you might not be notified of slow results or timeouts.
Postdata	<p>This setting is only visible if you select POST above. Enter the data part for the POST request.</p> <p>i No Extensible Markup Language (XML) is allowed here.</p>
Content Type	<p>This setting is only visible if you select POST above. Define the content type of the POST request:</p> <ul style="list-style-type: none"> ▪ Default (application/x-www-form-urlencoded): Use the default content type to encode the form data set for submission to the server. ▪ Custom: Use a custom content type. Enter the content type below.

Setting	Description
Custom Content Type	This setting is only visible if you select Custom above. Define the custom content type, for example, XML, JavaScript Object Notation (JSON), or HTTP.
Server Name Indication	Shows the Server Name Identification (SNI) that the sensor automatically determines from the host address of the parent device ^[447] or from the target URL of the sensor. <p>i The SNI must be a fully qualified domain name (FQDN). Make sure that it matches the configuration of the target server.</p> <p>■ For details, see the Knowledge Base: My HTTP sensors fail to monitor websites which use SNI. What can I do?</p> <p>i This sensor implicitly supports SNI, an extension to the Transport Layer Security (TLS) protocol.</p>
SNI Inheritance	Define if you want to inherit the SNI from the parent device: <ul style="list-style-type: none"> ▪ Inherit SNI from parent device: Determine the SNI from the host address of the parent device. ▪ Do not inherit SNI from parent device: Determine the SNI from the target URL as defined in the settings of this sensor.

HTTP Engine

HTTP Engine

Monitoring Engine **i**

Default engine (recommended)
 Compatibility engine

HTTP Engine

Setting	Description
Monitoring Engine	Choose the monitoring engine that the sensor uses: <ul style="list-style-type: none"> ▪ Default engine (recommended): Use the default monitoring engine. ▪ Compatibility engine: Execute an external executable program. Use this method as an alternative for websites that do not work with the default monitoring engine. <ul style="list-style-type: none"> i This method needs more resources but it can be helpful in some cases. i If you select the compatibility mode, the options for the SSL method are different. You can also check for trusted certificates. See below. i Smart URL Replacement does not work with the compatibility mode, so this sensor does not automatically use the IP Address/DNS value of the parent device.

Setting	Description
SSL/TLS Method	<p>This option is only visible if you select Alternate/Compatibility Mode above. Choose from:</p> <ul style="list-style-type: none"> ▪ SSLv3 ▪ TLS 1.0, TLS 1.1, TLS 1.2 ▪ SSLv3, TLS 1.0, TLS 1.1, TLS 1.2 (default)
Check SSL Certificates	<p>This option is only visible if you select Alternate/Compatibility Mode above. Specify if the sensor checks the certificate of the URL:</p> <ul style="list-style-type: none"> ▪ Do not check certificates: Do not check the certificates of the web pages. This the default setting. ▪ Check if certificates are trusted: Check the certificates of the web pages. If the certificate of the server is not trusted, the sensor shows a Down status and displays a corresponding message.

Advanced Sensor Data

Advanced Sensor Data

HTTP Version ⓘ HTTP 1.0
 HTTP 1.1

User Agent ⓘ Use the default string
 Use a custom string

HTTP Headers ⓘ Do not use custom HTTP headers
 Use custom HTTP headers

If Content Changes ⓘ Ignore changes
 Trigger 'change' notification

Require Keyword ⓘ Do not check for keyword (default)
 Set sensor to warning if keyword is missing
 Set sensor to down status if keyword is missing

Exclude Keyword ⓘ Do not check for keyword (default)
 Set sensor to warning if keyword is found
 Set sensor to down status if keyword is found

Download Limit (KB) ⓘ




Result Handling ⓘ Discard result
 Store result

Advanced Sensor Data


Setting	Description
HTTP Version	<p>Define the HTTP version that the sensor uses when it connects to the target URL:</p> <ul style="list-style-type: none"> ▪ HTTP 1.0: Use HTTP version 1.0. ▪ HTTP 1.1: Use HTTP version 1.1.
User Agent	<p>Choose which user agent string the sensor sends when it connects to the target URL:</p> <ul style="list-style-type: none"> ▪ Use the default string: Do not enter a specific user agent and use the default string. Usually, this is Mozilla/5.0 (compatible; PRTG Network Monitor (www.paessler.com); Windows). ▪ Use a custom string: Use a custom user agent. Define the custom user agent below.
Custom User Agent	<p>This setting is only visible if you enable Use a custom string above. Enter the string that the sensor uses as the user agent when it connects to the target URL.</p>
HTTP Headers	<p>Define if you want to send custom HTTP headers to the target URL:</p> <ul style="list-style-type: none"> ▪ Do not use custom HTTP headers: Do not use custom HTTP headers. ▪ Use custom HTTP headers: Use custom headers. Define below.
Custom HTTP Headers	<p>This setting is only visible if you enable Use custom HTTP headers above. Enter a list of custom HTTP headers and values that you want to transmit to the URL, each pair in one line. The syntax of a header-value pair is header1:value1</p> <ul style="list-style-type: none"> ⓘ The sensor does not support the header field names user-agent, content-length, and host. ⓘ Ensure that the HTTP header statement is valid. Otherwise, the sensor request cannot be successful.
If Content Changes	<p>Define what the sensor does if the content of the web page (element) changes:</p> <ul style="list-style-type: none"> • Ignore changes: Take no action on change. • Trigger 'change' notification: Send an internal message that indicates that the web page content has changed. In combination with a change trigger⁴¹³⁸, you can use this mechanism to trigger a notification³⁹⁸⁷ whenever the web page content changes.
Require Keyword	<p>Define if the sensor checks the result at the URL for keywords:</p> <ul style="list-style-type: none"> ▪ Do not check for keyword (default): Do not search for keywords in the result.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning if keyword is missing: Check if a keyword exists in the result. If it exists, set the sensor to the Warning status. ▪ Set sensor to error if keyword is missing: Check if a keyword exists in the result. If it exists, set the sensor to the Down status. <p>i The content check is only intended for HTML websites and might not work with other target URLs. For example, binary files are not supported.</p> <p>i This sensor loads the source code at the URL. If you set up a content check, only this source code is checked for the keywords. The code is not necessarily identical to the code used to display the page when opening the same URL in a web browser. This is because a reload might be configured or certain information might be inserted after loading, for example, via JavaScript.</p> <p>i PRTG does not follow links to embedded objects nor does it execute scripts. Only the first page at the URL is loaded and checked against the expressions configured.</p>
Response Must Include	<p>This setting is only visible if you select keyword checking above. Define the search string that must be part of the source code at the URL. You can enter a simple string in plain text or a regular expression (regex)⁴⁴⁹⁷.</p> <p>i If the source code does not include the search pattern, the sensor shows the status defined above.</p> <p>i The search string must be case sensitive.</p>
Search Method	<p>Define the method with which you want to provide the search string:</p> <ul style="list-style-type: none"> ▪ Simple string search: Search for a simple string in plain text. <p>i The characters * and ? work as placeholders. * stands for no number or any number of characters and ? stands for exactly one character. You cannot change this behavior. The literal search for these characters is only possible with a regex.</p> <p>i You can also search for HTML tags.</p> <ul style="list-style-type: none"> ▪ Regular expression: Search with a regex. <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p>
Exclude Keyword	<p>Define if the sensor checks the result at the URL for keywords:</p> <ul style="list-style-type: none"> ▪ Do not check for keyword (default): Do not search for keywords in the result. ▪ Set sensor to warning if keyword is found: Check if a keyword exists in the result. If it exists, set the sensor to the Warning status.

Setting	Description
Response Must Not include	<ul style="list-style-type: none"> ▪ Set sensor to error if keyword is found: Check if a keyword exists in the result. If it exists, set the sensor to the Down status. <p>i The content check is only intended for HTML websites and might not work with other target URLs. For example, binary files are not supported.</p> <p>This setting is only visible if you select keyword checking (exclude) above. Define the search string that must not be part of the source code at the specified URL. You can enter a simple string in plain text or a regular expression.</p> <ul style="list-style-type: none"> i The search string must be case sensitive. i If the data does include this string, the sensor shows the status defined above.
Search Method	<p>Define the method with which you want to provide the search string:</p> <ul style="list-style-type: none"> ▪ Simple string search: Search for a simple string in plain text. <p>i The characters * and ? work as placeholders. * stands for no number or any number of characters and ? stands for exactly one character. You cannot change this behavior. The literal search for these characters is only possible with a regex.</p> <p>i You can also search for HTML tags.</p> <ul style="list-style-type: none"> ▪ Regular expression: Search with a regex. <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p>
Download Limit (KB)	<p>Enter the maximum amount of data (in kilobytes) that is transferred per request.</p> <p>i If you set content checks, be aware that they might be incomplete because only the content downloaded up to this limit is checked for search expressions.</p>
Result Handling	<p>Define what the sensor does with the data loaded at the URL:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last result of the requested data in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁸ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID]-A.txt, and Result of Sensor [ID].Data.txt. This setting is for debugging purposes, especially in combination with content checks. PRTG overwrites these files with each scanning interval.


Setting	Description
	<p> For debugging, select Store result to write the source code file to disk and to look up what exactly PRTG gets when it calls the URL. If the URL does not point to a web page but to a binary file, for example, to an image, you usually do not check for content.</p> <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Authentication

Authentication Authentication 

Web page does not need authentication
 Web page needs authentication

Authentication

Setting	Description
Authentication	<p>Define if authentication is necessary on the web page:</p> <ul style="list-style-type: none"> ▪ Web page does not need authentication ▪ Web page needs authentication
User Name	<p>This setting is only visible if you select Web page needs authentication above. Enter a user name. Enter a string.</p>
Password	<p>This setting is only visible if you select Web page needs authentication above. Enter a password. Enter a string.</p>
Authentication Method	<p>This setting is only visible if you select Web page needs authentication above. Select the authentication method that the URL uses:</p> <ul style="list-style-type: none"> ▪ HTTP authentication: Use simple HTTP authentication. <ul style="list-style-type: none">  This authentication method transmits credentials as plain text. ▪ NT LAN Manager authentication: Use the Microsoft NT LAN Manager (NTLM) protocol for authentication. ▪ Digest access authentication: Use digest access authentication. This applies a hash function to the password, which is safer than HTTP authentication.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ⓘ).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ⓘ if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ⓘ.

Proxy Settings for HTTP Sensors

Click ⓘ to interrupt the [inheritance](#) ⓘ.

The proxy settings determine how a sensor connects to a URL. You can enter data for an HTTP proxy server that sensors use when they connect via HTTP or HTTPS.

i This setting only applies to HTTP sensors and how they monitor. To change the proxy settings for the PRTG core server, see section [Core & Probes](#)⁴²⁰³.

Proxy Settings for HTTP Sensors

IP Address/DNS Name i	192.0.2.0
Port i	8080
User Name i	johnqpublic
Password i	.....



Proxy Settings for HTTP Sensors

Setting	Description
IP Address/DNS Name	Enter the IP address or Domain Name System (DNS) name of the proxy server. If you leave this field empty, HTTP sensors do not use a proxy.
Port	Enter the port number of the proxy. The default is 8080. Enter an integer value.
User Name	<p>If the proxy requires authentication, enter the user name for the proxy login.</p> <p>i Only basic authentication is available. Enter a string or leave the field empty.</p>
Password	<p>If the proxy requires authentication, enter the password for the proxy login.</p> <p>i Only basic authentication is available. Enter a string or leave the field empty.</p>


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root	Scanning Interval i	60 seconds
	If a Sensor Query Fails i	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails.

Setting	Description
	<p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i**



Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00)



Setting	Description
	<ul style="list-style-type: none"> ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>


Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above . Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].


Access Rights

 inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Smart URL Replacement

Instead of entering a complete address in the URL field of an HTTP sensor, you can only enter the protocol followed by a colon and three forward slashes (this means that you can enter either <http://> or <https://>, or even a simple forward slash / as the equivalent for <http://>). PRTG automatically fills in the parent device's IP address or DNS name in front of the third forward slash.

Whether this results in a valid URL or not depends on the IP address or Domain Name System (DNS) name of the parent device. In combination with cloning devices, you can use smart URL replacement to create many similar devices.

For example, if you create a device with the DNS name www.mycompany.com and you add an HTTP sensor to it, you can provide values in the following ways:


- If you enter <https://> in the URL field, PRTG automatically creates the URL <https://www.mycompany.com/>
- If you enter [/help](http://www.mycompany.com/help) in the URL field, PRTG automatically creates and monitor the URL <http://www.mycompany.com/help>
- It is also possible to provide a port number in the URL field. It is taken over by the device's DNS name and is internally added, for example, <http://:8080/>

i Smart URL replacement does not work for sensors that run on the probe device.

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Bytes Received	The received bytes

Channel	Description
Download Bandwidth	The download speed in bytes per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Loading Time	The loading time in milliseconds (msec)  This channel is the primary channel by default.
Time To First Byte	The time to the first byte in msec

More

■ KNOWLEDGE BASE

Which user agent should I use in the HTTP Advanced sensor's settings?

- <https://kb.paessler.com/en/topic/30593>

My HTTP sensors fail to monitor websites which use SNI. What can I do?

- <https://kb.paessler.com/en/topic/67398>

Which HTTP status code leads to which HTTP sensor status?

- <https://kb.paessler.com/en/topic/65731>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Why do my HTTP Advanced sensors differ in the bytes received value?





- <https://kb.paessler.com/en/topic/78778>

My HTTP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/85284>

Sensor Settings Overview

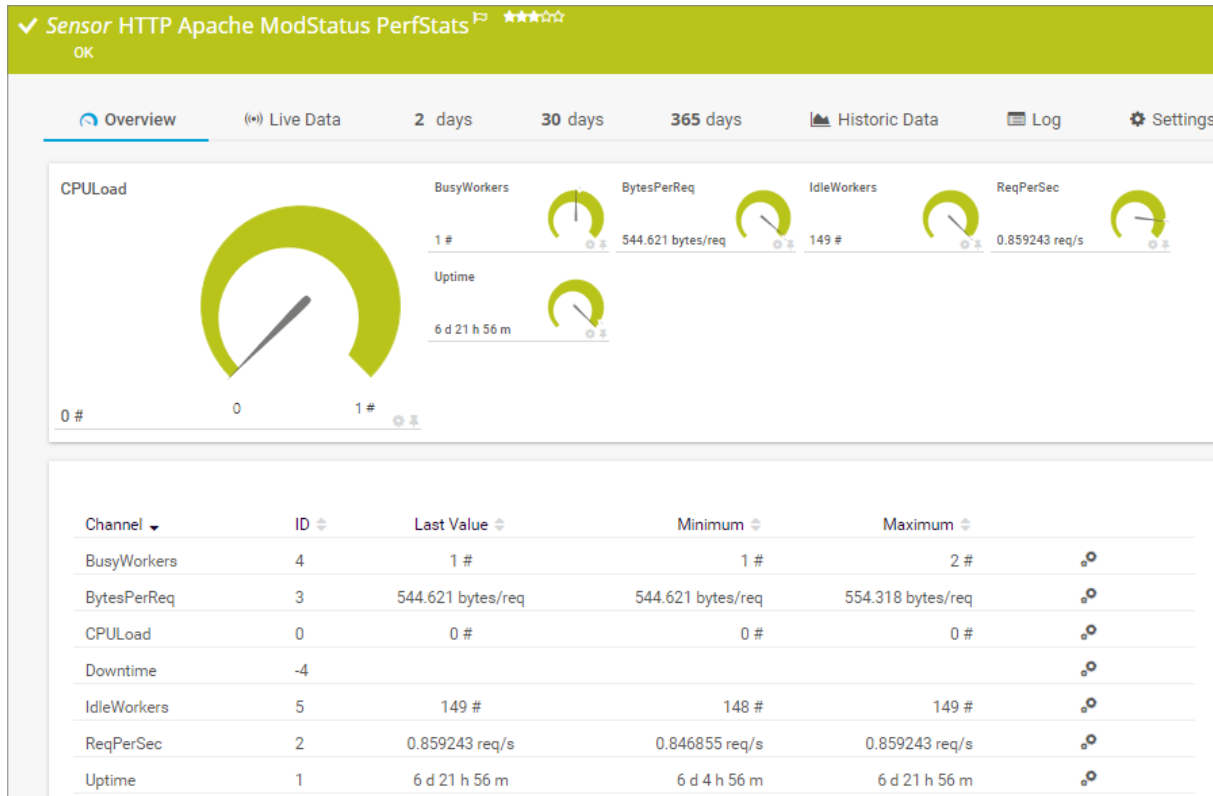
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3997

7.8.60 HTTP Apache ModStatus PerfStats Sensor

The HTTP Apache ModStatus PerfStats sensor monitors performance statistics of an Apache web server via [mod_status](#) over HTTP.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



HTTP Apache ModStatus PerfStats Sensor

Sensor in Other Languages

- Dutch: HTTP Apache ModStatus PerfStats
- French: HTTP Apache ModStatus PerfStats
- German: HTTP Apache ModStatus PerfStats
- Japanese: HTTP Apache ModStatus 性能統計
- Portuguese: HTTP Apache ModStatus PerfStats
- Russian: HTTP Apache ModStatus — . -
- Simplified Chinese: HTTP Apache ModStatus PerfStats
- Spanish: ModStatus PerfStats de HTTP Apache

Remarks

- This sensor does not support Secure Remote Password (SRP) ciphers.
- This sensor supports smart URL replacement.

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- See the Knowledge Base: [Which HTTP status code leads to which HTTP sensor status?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a 'Basic Sensor Settings' dialog box. It has three main sections: 'Sensor Name' with a text input field containing 'Example Name'; 'Tags' with a text input field containing 'exampletag' and a plus sign icon; and 'Priority' with a star rating of five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ httpsensor ▪ httpapachemodstatusperfstatssensor ▪ apache
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HTTP Specific

HTTP Specific

Timeout (Sec.) **i** 60

URL **i** <http://www.accessories.be/services/insertservice.aspx?CardEvent>

HTTP Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
URL	<p>Enter the URL to the mod_status module on your Apache server. PRTG automatically appends /server-status?auto to it. If you enter an absolute URL, the sensor uses this address independently of the IP Address/DNS Name setting of the parent device.</p> <p>■ PRTG uses a smart URL replacement with which you can use the parent device's IP address or Domain Name System (DNS) name setting as part of the URL. For more information, see section Smart URL Replacement [1233].</p>

i This sensor implicitly supports SNI, an extension to the Transport Layer Security (TLS) protocol.

Authentication

Authentication Authentication ⓘ

Web page does not need authentication
 Web page needs authentication

Authentication

Setting	Description
Authentication	Define if authentication is necessary on the web page: <ul style="list-style-type: none"> Web page does not need authentication Web page needs authentication
User Name	This setting is only visible if you select Web page needs authentication above. Enter a user name. Enter a string.
Password	This setting is only visible if you select Web page needs authentication above. Enter a password. Enter a string.
Authentication Method	This setting is only visible if you select Web page needs authentication above. Select the authentication method that the URL uses: <ul style="list-style-type: none"> HTTP authentication: Use simple HTTP authentication. ⓘ This authentication method transmits credentials as plain text. NT LAN Manager authentication: Use the Microsoft NT LAN Manager (NTLM) protocol for authentication. Digest access authentication: Use digest access authentication. This applies a hash function to the password, which is safer than HTTP authentication.




Sensor Display

Sensor Display Primary Channel ⓘ Downtime


Graph Type ⓘ
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.

Setting	Description
	<p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Proxy Settings for HTTP Sensors

Click  to interrupt the [inheritance](#)¹⁴².

The proxy settings determine how a sensor connects to a URL. You can enter data for an HTTP proxy server that sensors use when they connect via HTTP or HTTPS.

 This setting only applies to HTTP sensors and how they monitor. To change the proxy settings for the PRTG core server, see section [Core & Probes](#)⁴²⁰³.

Proxy Settings for HTTP Sensors

IP Address/DNS Name ⓘ	192.0.2.0
Port ⓘ	8080
User Name ⓘ	johnqpublic
Password ⓘ	.....


Proxy Settings for HTTP Sensors

Setting	Description
IP Address/DNS Name	Enter the IP address or Domain Name System (DNS) name of the proxy server. If you leave this field empty, HTTP sensors do not use a proxy.
Port	Enter the port number of the proxy. The default is 8080. Enter an integer value.
User Name	If the proxy requires authentication, enter the user name for the proxy login. ⓘ Only basic authentication is available. Enter a string or leave the field empty.
Password	If the proxy requires authentication, enter the password for the proxy login. ⓘ Only basic authentication is available. Enter a string or leave the field empty.

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

<input checked="" type="checkbox"/> inherit from  Root	Scanning Interval ⓘ	60 seconds
	If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from: <ul style="list-style-type: none"> ▪ 30 seconds

Setting	Description
	<ul style="list-style-type: none"> ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule **None**

Maintenance Window **Do not set up a one-time maintenance window**
 Set up a one-time maintenance window

Dependency Type **Use parent**
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

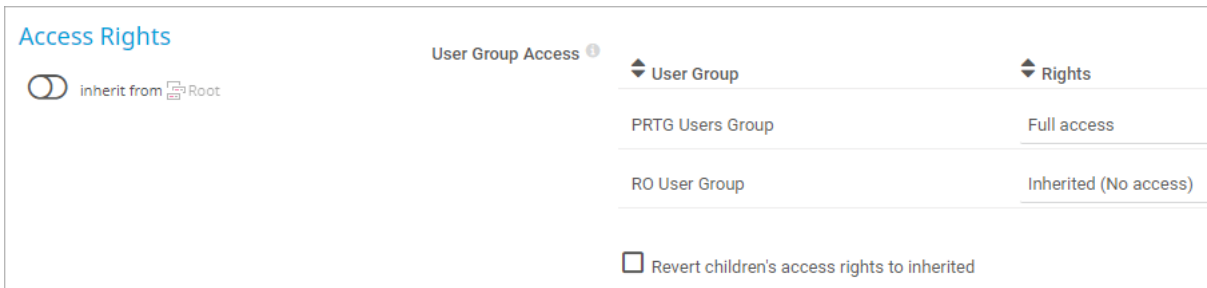
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights

Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Smart URL Replacement

Instead of entering a complete address in the URL field of an HTTP sensor, you can only enter the protocol followed by a colon and three forward slashes (this means that you can enter either <http://> or <https://>, or even a simple forward slash / as the equivalent for <http://>). PRTG automatically fills in the parent device's IP address or DNS name in front of the third forward slash.


Whether this results in a valid URL or not depends on the IP address or Domain Name System (DNS) name of the parent device. In combination with cloning devices, you can use smart URL replacement to create many similar devices.


For example, if you create a device with the DNS name www.mycompany.com and you add an HTTP sensor to it, you can provide values in the following ways:

- If you enter <https://> in the URL field, PRTG automatically creates the URL <https://www.mycompany.com/>
- If you enter [/help](http://www.mycompany.com/help) in the URL field, PRTG automatically creates and monitor the URL <http://www.mycompany.com/help>
- It is also possible to provide a port number in the URL field. It is taken over by the device's DNS name and is internally added, for example, <http://:8080/>

 Smart URL replacement does not work for sensors that run on the probe device.

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
BusyWorkers	The number of busy worker threads
BytesPerReq	The number of bytes per request
CPUload	The CPU load  This channel is the primary channel by default.
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
IdleWorkers	The number of idle worker threads
ReqPerSec	The number of requests per second
Uptime	The server uptime

More

KNOWLEDGE BASE

Which HTTP status code leads to which HTTP sensor status?

- <https://kb.paessler.com/en/topic/65731>

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My HTTP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/85284>

Sensor Settings Overview

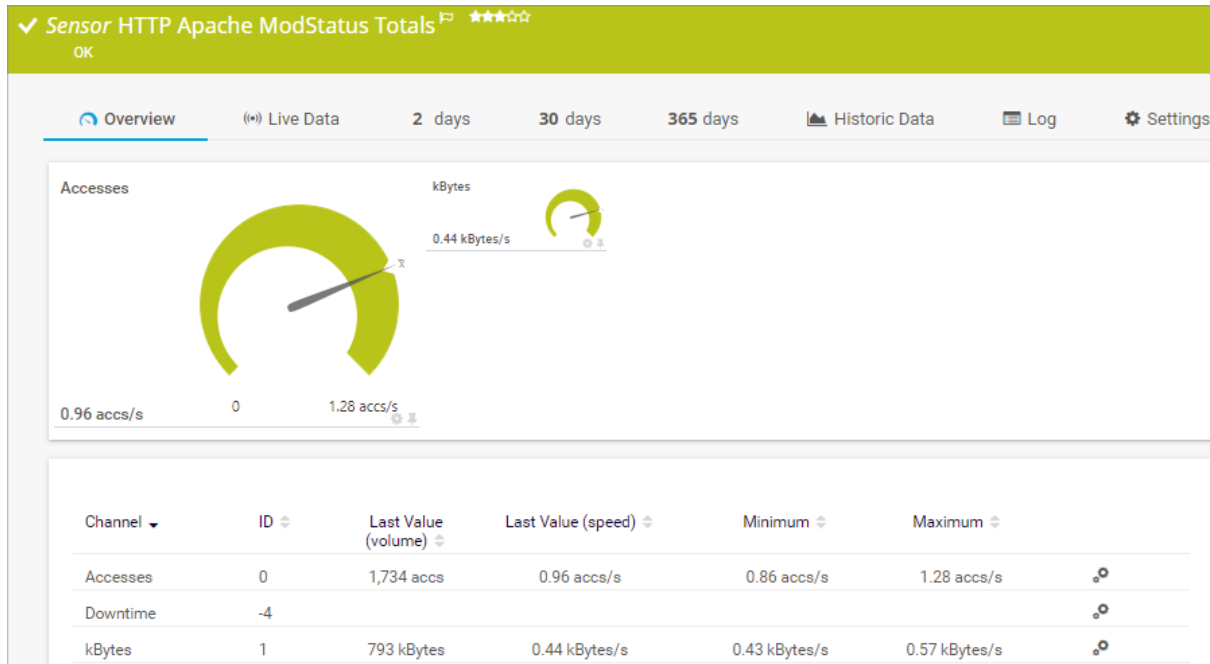
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.61 HTTP Apache ModStatus Totals Sensor

The HTTP Apache ModStatus Totals sensor monitors the activity of an Apache web server using [mod_status](#) over HTTP.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



HTTP Apache ModStatus Totals Sensor

Sensor in Other Languages

- Dutch: HTTP Apache ModStatus Totalen
- French: Totaux HTTP Apache ModStatus
- German: HTTP Apache ModStatus Gesamt
- Japanese: HTTP Apache ModStatus 合計
- Portuguese: HTTP Apache ModStatus totais
- Russian: HTTP Apache ModStatus —
- Simplified Chinese: HTTP Apache ModStatus 合计
- Spanish: ModStatus total de HTTP Apache

Remarks

- This sensor does not support Secure Remote Password (SRP) ciphers.
- This sensor supports smart URL replacement.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- See the Knowledge Base: [Which HTTP status code leads to which HTTP sensor status?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has a title bar 'Basic Sensor Settings'. Below the title bar, there are three rows of settings:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A list of tags with 'exampletag' selected, and a plus sign icon to add more.
- Priority**: A star rating system showing 3 stars out of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ httpsensor ▪ httpapachemodstatustotalssensor ▪ apache
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HTTP Specific

HTTP Specific	
Timeout (Sec.) i	60
URL i	http://www.paessler.de/services/monitoring-service/agent/GetEvents
HTTP Specific	

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
URL	<p>Enter the URL to the mod_status module on your Apache server. PRTG automatically appends /server-status?auto to it. If you enter an absolute URL, the sensor uses this address independently of the IP Address/DNS Name setting of the parent device.</p> <p>■ PRTG uses a smart URL replacement with which you can use the parent device's IP address or Domain Name System (DNS) name setting as part of the URL. For more information, see section Smart URL Replacement^[1245].</p>

i This sensor implicitly supports SNI, an extension to the Transport Layer Security (TLS) protocol.

Authentication

Authentication Authentication ⓘ

Web page does not need authentication
 Web page needs authentication

Authentication

Setting	Description
Authentication	Define if authentication is necessary on the web page: <ul style="list-style-type: none"> ▪ Web page does not need authentication ▪ Web page needs authentication
User Name	This setting is only visible if you select Web page needs authentication above. Enter a user name. Enter a string.
Password	This setting is only visible if you select Web page needs authentication above. Enter a password. Enter a string.
Authentication Method	This setting is only visible if you select Web page needs authentication above. Select the authentication method that the URL uses: <ul style="list-style-type: none"> ▪ HTTP authentication: Use simple HTTP authentication. ⓘ This authentication method transmits credentials as plain text. ▪ NT LAN Manager authentication: Use the Microsoft NT LAN Manager (NTLM) protocol for authentication. ▪ Digest access authentication: Use digest access authentication. This applies a hash function to the password, which is safer than HTTP authentication.




Sensor Display

Sensor Display Primary Channel ⓘ Downtime


Graph Type ⓘ
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.

Setting	Description
	<p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Proxy Settings for HTTP Sensors

Click  to interrupt the [inheritance](#)¹⁴².

The proxy settings determine how a sensor connects to a URL. You can enter data for an HTTP proxy server that sensors use when they connect via HTTP or HTTPS.

 This setting only applies to HTTP sensors and how they monitor. To change the proxy settings for the PRTG core server, see section [Core & Probes](#)⁴²⁰³.

Proxy Settings for HTTP Sensors

IP Address/DNS Name ⓘ	192.0.2.0
Port ⓘ	8080
User Name ⓘ	johnqpublic
Password ⓘ	.....


Proxy Settings for HTTP Sensors

Setting	Description
IP Address/DNS Name	Enter the IP address or Domain Name System (DNS) name of the proxy server. If you leave this field empty, HTTP sensors do not use a proxy.
Port	Enter the port number of the proxy. The default is 8080. Enter an integer value.
User Name	If the proxy requires authentication, enter the user name for the proxy login. ⓘ Only basic authentication is available. Enter a string or leave the field empty.
Password	If the proxy requires authentication, enter the password for the proxy login. ⓘ Only basic authentication is available. Enter a string or leave the field empty.

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

<input checked="" type="checkbox"/> inherit from  Root	Scanning Interval ⓘ	60 seconds
	If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from: <ul style="list-style-type: none"> ▪ 30 seconds

Setting	Description
	<ul style="list-style-type: none"> ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule **None**

Maintenance Window **Do not set up a one-time maintenance window**
 Set up a one-time maintenance window

Dependency Type **Use parent**
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

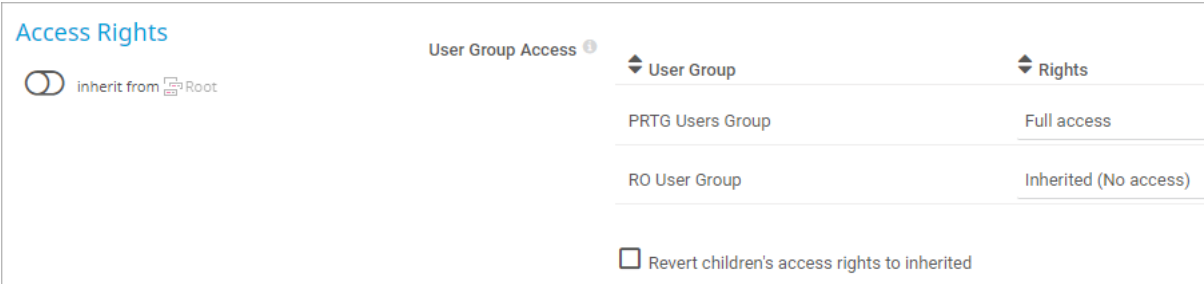
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights

Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Smart URL Replacement

Instead of entering a complete address in the URL field of an HTTP sensor, you can only enter the protocol followed by a colon and three forward slashes (this means that you can enter either <http://> or <https://>, or even a simple forward slash / as the equivalent for <http://>). PRTG automatically fills in the parent device's IP address or DNS name in front of the third forward slash.


Whether this results in a valid URL or not depends on the IP address or Domain Name System (DNS) name of the parent device. In combination with cloning devices, you can use smart URL replacement to create many similar devices.


For example, if you create a device with the DNS name www.mycompany.com and you add an HTTP sensor to it, you can provide values in the following ways:

- If you enter <https://> in the URL field, PRTG automatically creates the URL <https://www.mycompany.com/>
- If you enter [/help](http://www.mycompany.com/help) in the URL field, PRTG automatically creates and monitor the URL <http://www.mycompany.com/help>
- It is also possible to provide a port number in the URL field. It is taken over by the device's DNS name and is internally added, for example, <http://:8080/>

 Smart URL replacement does not work for sensors that run on the probe device.

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Accesses	The number of accesses per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
KBytes	The data transferred in bytes per second  This channel is the primary channel by default.

More

KNOWLEDGE BASE

Which HTTP status code leads to which HTTP sensor status?

- <https://kb.paessler.com/en/topic/65731>

What security features does PRTG include?

Part 7: Device and Sensor Setup | 8 Sensor Settings
61 HTTP Apache ModStatus Totals Sensor





- <https://kb.paessler.com/en/topic/61108>

My HTTP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/85284>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

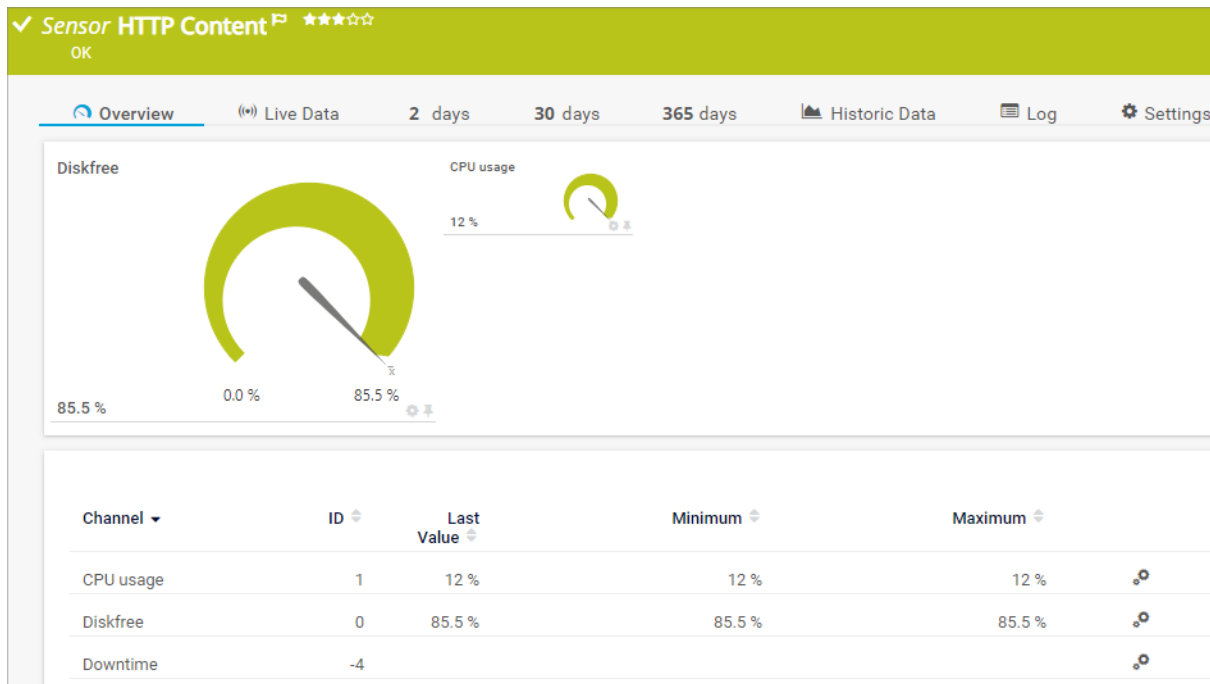
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3977

7.8.62 HTTP Content Sensor

The HTTP Content sensor monitors numeric values returned by an HTTP request.

i In the returned HTML page, each value must be placed between brackets []. See the [example](#).

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



HTTP Content Sensor

Sensor in Other Languages

- Dutch: HTTP (Inhoud)
- French: HTTP (contenu)
- German: HTTP (Inhalt)
- Japanese: HTTP コンテンツ
- Portuguese: Conteúdo HTTP
- Russian: HTTP:
- Simplified Chinese: HTTP 内容
- Spanish: Contenido HTTP

Remarks

- This sensor does not officially support more than 50 channels. Depending on the data used with this sensor, you might exceed the maximum number of supported channels. In this case, PRTG tries to display all channels. Be aware, however, that you experience limited usability and performance.
- This sensor does not support Secure Remote Password (SRP) ciphers.

- This sensor supports smart URL replacement.
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- For an example configuration, see section [Example](#).
- See the Knowledge Base: [How can I monitor internal values of a web application with PRTG?](#)
- See the Knowledge Base: [Which HTTP status code leads to which HTTP sensor status?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

HTTP Specific

Setting	Description
Value Type	<p>Define what kind of values the .html file returns:</p> <ul style="list-style-type: none"> ▪ Integer: Returns integers. ▪ Float: Returns floats with a dot . between the predecimal position and the decimal places. The sensor also displays integer values unless they do not produce a buffer overflow. <p>i The sensor cannot handle string values.</p>
Number of Channels	<p>Define how many values the .html file returns. The sensor handles each value in its own channel. Each value must be placed between brackets []. Enter the number of bracket-value pairs that the URL returns. Enter an integer value.</p> <p>i Do not enter a number that is smaller than the number of values that the HTTP request returns. Otherwise, you get an error message.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ ✕ +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ httpsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HTTP Specific

HTTP Specific	
Timeout (Sec.) i	60
Script URL i	https://
Value Type i	Integer

You can modify channel names and units in the sensor's channel settings.

HTTP Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
Script URL	<p>Enter the URL that the sensor connects to. If you enter an absolute URL, the sensor uses this address independently of the IP Address/DNS Name setting of the parent device.</p> <p>i The URL must be URL encoded.</p> <p>■ PRTG uses a smart URL replacement with which you can use the parent device's IP address or Domain Name System (DNS) name setting as part of the URL. For more information, see section Smart URL Replacement ¹²⁵⁰.</p>
Value Type	<p>Shows the kind of values that the .html file returns.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

i This sensor implicitly supports SNI, an extension to the Transport Layer Security (TLS) protocol.

Advanced Sensor Data

Advanced Sensor Data

If Content Changes ⁱ

Ignore changes

Trigger 'change' notification

Result Handling ⁱ

Discard result

Store result

Advanced Sensor Data

Setting	Description
If Content Changes	<p>Define what the sensor does if the content of the web page changes:</p> <ul style="list-style-type: none"> Ignore changes: Take no action on change. Trigger 'change' notification: Send an internal message that indicates changes to the web page content. In combination with a change trigger ⁴¹³⁸, you can use this mechanism to trigger a notification ³⁹⁸⁷ when the web page content changes.
Result Handling	<p>Define what PRTG does with the sensor result:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Authentication

Authentication ⓘ

Web page does not need authentication
 Web page needs authentication

Authentication

Setting	Description
Authentication	Define if authentication is necessary on the web page: <ul style="list-style-type: none"> ▪ Web page does not need authentication ▪ Web page needs authentication
User Name	This setting is only visible if you select Web page needs authentication above. Enter a user name. Enter a string.
Password	This setting is only visible if you select Web page needs authentication above. Enter a password. Enter a string.
Authentication Method	This setting is only visible if you select Web page needs authentication above. Select the authentication method that the URL uses: <ul style="list-style-type: none"> ▪ HTTP authentication: Use simple HTTP authentication. ⓘ This authentication method transmits credentials as plain text. ▪ NT LAN Manager authentication: Use the Microsoft NT LAN Manager (NTLM) protocol for authentication. ▪ Digest access authentication: Use digest access authentication. This applies a hash function to the password, which is safer than HTTP authentication.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ⓘ).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ⓘ if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ⓘ.

Proxy Settings for HTTP Sensors

Click ⓘ to interrupt the [inheritance](#) ⓘ.

The proxy settings determine how a sensor connects to a URL. You can enter data for an HTTP proxy server that sensors use when they connect via HTTP or HTTPS.

i This setting only applies to HTTP sensors and how they monitor. To change the proxy settings for the PRTG core server, see section [Core & Probes](#)⁴²⁰³.

Proxy Settings for HTTP Sensors

IP Address/DNS Name i	192.0.2.0
Port i	8080
User Name i	johnqpublic
Password i	.....



Proxy Settings for HTTP Sensors

Setting	Description
IP Address/DNS Name	Enter the IP address or Domain Name System (DNS) name of the proxy server. If you leave this field empty, HTTP sensors do not use a proxy.
Port	Enter the port number of the proxy. The default is 8080. Enter an integer value.
User Name	<p>If the proxy requires authentication, enter the user name for the proxy login.</p> <p>i Only basic authentication is available. Enter a string or leave the field empty.</p>
Password	<p>If the proxy requires authentication, enter the password for the proxy login.</p> <p>i Only basic authentication is available. Enter a string or leave the field empty.</p>


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root	Scanning Interval i	60 seconds
	If a Sensor Query Fails i	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails.

Setting	Description
	<p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i**



Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>


Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>For more details on access rights, see section Access Rights Management.</p>

Example

For example, consider the URL <http://www.example.com/status.html> that returns a PHP script with the current system status in a simple HTML page as follows:

```
<html>
<body>
  Description: Script gives back current status of disk free (%) and CPU usage (%).
  [85.5][12.0]
</body>
</html>
```

You would configure the HTTP Content sensor using

- the script URL from above,
- the value type Float,
- and the number of channels 2.

The sensor calls the URL with every scanning interval and only regards the two values in brackets [] and handles each of them in one channel. The additional description text and HTML tags are not necessary. In this example, they are added in case a human calls the URL.

i If you define the number of channels as 1, the sensor only reads the first value. The second value is ignored. Using 3 as the number of channels results in a sensor error message.

Smart URL Replacement

Instead of entering a complete address in the URL field of an HTTP sensor, you can only enter the protocol followed by a colon and three forward slashes (this means that you can enter either <http://> or <https://>, or even a simple forward slash / as the equivalent for <http://>). PRTG automatically fills in the parent device's IP address or DNS name in front of the third forward slash.


Whether this results in a valid URL or not depends on the IP address or Domain Name System (DNS) name of the parent device. In combination with cloning devices, you can use smart URL replacement to create many similar devices.

For example, if you create a device with the DNS name www.mycompany.com and you add an HTTP sensor to it, you can provide values in the following ways:

- If you enter <https://> in the URL field, PRTG automatically creates the URL <https://www.mycompany.com/>
- If you enter [/help](http://www.mycompany.com/help) in the URL field, PRTG automatically creates and monitor the URL <http://www.mycompany.com/help>
- It is also possible to provide a port number in the URL field. It is taken over by the device's DNS name and is internally added, for example, <http://:8080/>

 Smart URL replacement does not work for sensors that run on the probe device.

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	The numeric values that an HTTP request returns in several channels

More

KNOWLEDGE BASE

How can I monitor internal values of a web application with PRTG?

- <https://kb.paessler.com/en/topic/4>

Which HTTP status code leads to which HTTP sensor status?

- <https://kb.paessler.com/en/topic/65731>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>





Part 7: Device and Sensor Setup | 8 Sensor Settings
62 HTTP Content Sensor

My HTTP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/85284>

Sensor Settings Overview

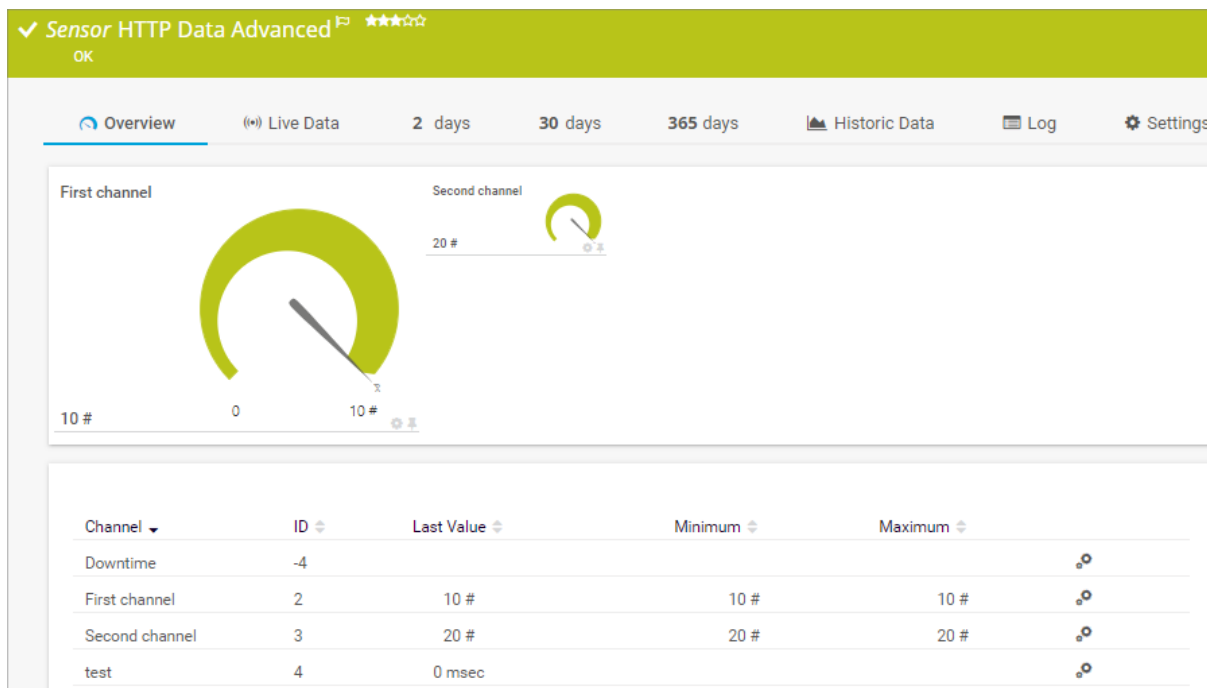
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.63 HTTP Data Advanced Sensor

The HTTP Data Advanced sensor accesses a web server and retrieves Extensible Markup Language (XML) encoded or JavaScript Object Notation (JSON) encoded data.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



HTTP Data Advanced Sensor

Sensor in Other Languages

- Dutch: HTTP Data Geavanceerd
- French: Données avancées HTTP
- German: HTTP Daten (Erweitert)
- Japanese: HTTP データアドバンスト
- Portuguese: Dados HTTP Avançado
- Russian: HTTP: ()
- Simplified Chinese: HTTP 数据高级
- Spanish: Datos HTTP avanzados

Remarks

- The requested web server must return XML-encoded or JSON-encoded data that matches the format as defined in section [Custom Sensors](#).
- This sensor does not support Secure Remote Password (SRP) ciphers.
- This sensor supports smart URL replacement.
- This sensor supports the IPv6 protocol.

- This sensor has a medium performance impact.
- For best sensor performance, we recommend that you specify the content type on the target server, which is [application/xml](#) or [application/json](#).
- See the Knowledge Base: [Which HTTP status code leads to which HTTP sensor status?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections: 'Sensor Name' with a text input field containing 'Example Name'; 'Tags' with a text input field containing 'exampletag' and a plus sign icon; and 'Priority' with a star rating of five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ httpsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HTTP Specific

HTTP Specific

Timeout (Sec.) **i**

URL **i**

Request Method **i**

GET

POST

HEAD

Server Name Indication **i**








SNI Inheritance **i**

Inherit SNI from parent device

Do not inherit SNI from parent device

HTTP Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

Setting	Description
URL	<p>Enter the URL that the sensor connects to. If you enter an absolute URL, the sensor uses this address independently of the IP Address/DNS Name setting of the parent device. You can enter the URL of a web page (to measure the loading time of the page's source code), or enter the URL of an image or of a page asset to measure this element's availability and loading time.</p> <ul style="list-style-type: none">  The URL must be URL encoded.  If you monitor an image or a page asset, this can create a high amount of memory load. We recommend that the size of the elements that you want to monitor does not exceed 200 MB. <p> PRTG uses a smart URL replacement with which you can use the parent device's IP address or Domain Name System (DNS) name setting as part of the URL. For more information, see section Smart URL Replacement ¹²⁷⁴.</p>
Request Method	<p>Select an HTTP request method to determine how the sensor requests the URL:</p> <ul style="list-style-type: none"> ▪ GET: Directly request the website. <ul style="list-style-type: none">  We recommend that you use this setting for a simple check of the web page. ▪ POST: Send post form data to the URL. <ul style="list-style-type: none">  If you select this setting, you must enter the data in the Postdata field below. ▪ HEAD: Only request the HTTP header from the server without the actual web page. <ul style="list-style-type: none">  Although this saves bandwidth because it transfers less data, we do not recommend that you use this. This is because the measured request time is not the one that your users experience and you might not be notified of slow results or timeouts.
Postdata	<p>This setting is only visible if you select POST above. Enter the data part for the POST request.</p> <ul style="list-style-type: none">  No Extensible Markup Language (XML) is allowed here.
Content Type	<p>This setting is only visible if you select POST above. Define the content type of the POST request:</p> <ul style="list-style-type: none"> ▪ Default (application/x-www-form-urlencoded): Use the default content type to encode the form data set for submission to the server. ▪ Custom: Use a custom content type. Enter the content type below.
Custom Content Type	<p>This setting is only visible if you select Custom above. Define the custom content type, for example, XML, JavaScript Object Notation (JSON), or HTTP.</p>

Setting	Description
Server Name Indication	<p>Shows the Server Name Identification (SNI) that the sensor automatically determines from the host address of the parent device⁴⁴⁷ or from the target URL of the sensor.</p> <p>i The SNI must be a fully qualified domain name (FQDN). Make sure that it matches the configuration of the target server.</p> <p>■ For details, see the Knowledge Base: My HTTP sensors fail to monitor websites which use SNI. What can I do?</p>
SNI Inheritance	<p>Define if you want to inherit the SNI from the parent device:</p> <ul style="list-style-type: none"> ▪ Inherit SNI from parent device: Determine the SNI from the host address of the parent device. ▪ Do not inherit SNI from parent device: Determine the SNI from the target URL as defined in the settings of this sensor.
Result Handling	<p>Define what the sensor does with the data loaded at the URL:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last result of the requested data in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID]-A.txt, and Result of Sensor [ID].Data.txt. This setting is for debugging purposes, especially in combination with content checks. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Advanced Sensor Data

Advanced Sensor Data

HTTP Version ⓘ HTTP 1.0
 HTTP 1.1

User Agent ⓘ Use the default string
 Use a custom string

Use Custom HTTP Headers ⓘ Do not use custom HTTP headers
 Use custom HTTP headers

Advanced Sensor Data

Setting	Description
HTTP Version	<p>Define the HTTP version that the sensor uses when it connects to the target URL:</p> <ul style="list-style-type: none"> ▪ HTTP 1.0: Use HTTP version 1.0. ▪ HTTP 1.1: Use HTTP version 1.1.
User Agent	<p>Choose which user agent string the sensor sends when it connects to the target URL:</p> <ul style="list-style-type: none"> ▪ Use the default string: Do not enter a specific user agent and use the default string. Usually, this is Mozilla/5.0 (compatible; PRTG Network Monitor (www.paessler.com); Windows). ▪ Use a custom string: Use a custom user agent. Define the custom user agent below.
Custom User Agent	<p>This setting is only visible if you enable Use a custom string above. Enter the string that the sensor uses as the user agent when it connects to the target URL.</p>
HTTP Headers	<p>Define if you want to send custom HTTP headers to the target URL:</p> <ul style="list-style-type: none"> ▪ Do not use custom HTTP headers: Do not use custom HTTP headers. ▪ Use custom HTTP headers: Use custom headers. Define below.
Custom HTTP Headers	<p>This setting is only visible if you enable Use custom HTTP headers above. Enter a list of custom HTTP headers and values that you want to transmit to the URL, each pair in one line. The syntax of a header-value pair is header1:value1</p> <ul style="list-style-type: none"> ⓘ The sensor does not support the header field names user-agent, content-length, and host. ⓘ Ensure that the HTTP header statement is valid. Otherwise, the sensor request cannot be successful.

Authentication

Authentication Authentication ⓘ Web page does not need authentication Web page needs authentication

Authentication

Setting	Description
Authentication	Define if authentication is necessary on the web page:

Setting	Description
	<ul style="list-style-type: none"> ▪ Web page does not need authentication ▪ Web page needs authentication
User Name	This setting is only visible if you select Web page needs authentication above. Enter a user name. Enter a string.
Password	This setting is only visible if you select Web page needs authentication above. Enter a password. Enter a string.
Authentication Method	<p>This setting is only visible if you select Web page needs authentication above. Select the authentication method that the URL uses:</p> <ul style="list-style-type: none"> ▪ HTTP authentication: Use simple HTTP authentication. <ul style="list-style-type: none"> i This authentication method transmits credentials as plain text. ▪ NT LAN Manager authentication: Use the Microsoft NT LAN Manager (NTLM) protocol for authentication. ▪ Digest access authentication: Use digest access authentication. This applies a hash function to the password, which is safer than HTTP authentication.

Sensor Display

Sensor Display

Primary Channel Downtime


Graph Type
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none"> i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Proxy Settings for HTTP Sensors

Click  to interrupt the [inheritance](#)¹⁴².



The proxy settings determine how a sensor connects to a URL. You can enter data for an HTTP proxy server that sensors use when they connect via HTTP or HTTPS.

i This setting only applies to HTTP sensors and how they monitor. To change the proxy settings for the PRTG core server, see section [Core & Probes](#)⁴²⁰³.

Proxy Settings for HTTP Sensors

IP Address/DNS Name i	192.0.2.0
Port i	8080
User Name i	johnqpublic
Password i	.....

Proxy Settings for HTTP Sensors



Setting	Description
IP Address/DNS Name	Enter the IP address or Domain Name System (DNS) name of the proxy server. If you leave this field empty, HTTP sensors do not use a proxy.
Port	Enter the port number of the proxy. The default is 8080. Enter an integer value.
User Name	If the proxy requires authentication, enter the user name for the proxy login.  Only basic authentication is available. Enter a string or leave the field empty.
Password	If the proxy requires authentication, enter the password for the proxy login.  Only basic authentication is available. Enter a string or leave the field empty.

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from: <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules 4170.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from Root

Channel Unit Types ?

Channel Type	Unit
Bytes (Bandwidth)	KB v
	kbit v
	/ v
	sec... v
Bytes (Memory)	MB v
Bytes (Disk)	MB v
Bytes (File)	Byte v

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Smart URL Replacement

Instead of entering a complete address in the URL field of an HTTP sensor, you can only enter the protocol followed by a colon and three forward slashes (this means that you can enter either <http://> or <https://>, or even a simple forward slash / as the equivalent for <http://>). PRTG automatically fills in the parent device's IP address or DNS name in front of the third forward slash.

Whether this results in a valid URL or not depends on the IP address or Domain Name System (DNS) name of the parent device. In combination with cloning devices, you can use smart URL replacement to create many similar devices.

For example, if you create a device with the DNS name www.mycompany.com and you add an HTTP sensor to it, you can provide values in the following ways:

- If you enter <https://> in the URL field, PRTG automatically creates the URL <https://www.mycompany.com/>
 - If you enter [/help](#) in the URL field, PRTG automatically creates and monitor the URL <http://www.mycompany.com/help>
 - It is also possible to provide a port number in the URL field. It is taken over by the device's DNS name and is internally added, for example, <http://:8080/>
- i** Smart URL replacement does not work for sensors that run on the probe device.

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	<p>The values that the web server returns in several channels</p> <p>i This channel is the primary channel by default.</p> <p>■ For details about the return value format, see section Custom Sensors ⁴⁴⁴⁰.</p>

More

■ KNOWLEDGE BASE

Which HTTP status code leads to which HTTP sensor status?

- <https://kb.paessler.com/en/topic/65731>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

My HTTP sensors fail to monitor websites which use SNI. What can I do?

- <https://kb.paessler.com/en/topic/67398>

My HTTP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/85284>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#) ⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#) ³⁹⁷²

Part 7: Device and Sensor Setup | 8 Sensor Settings
63 HTTP Data Advanced Sensor

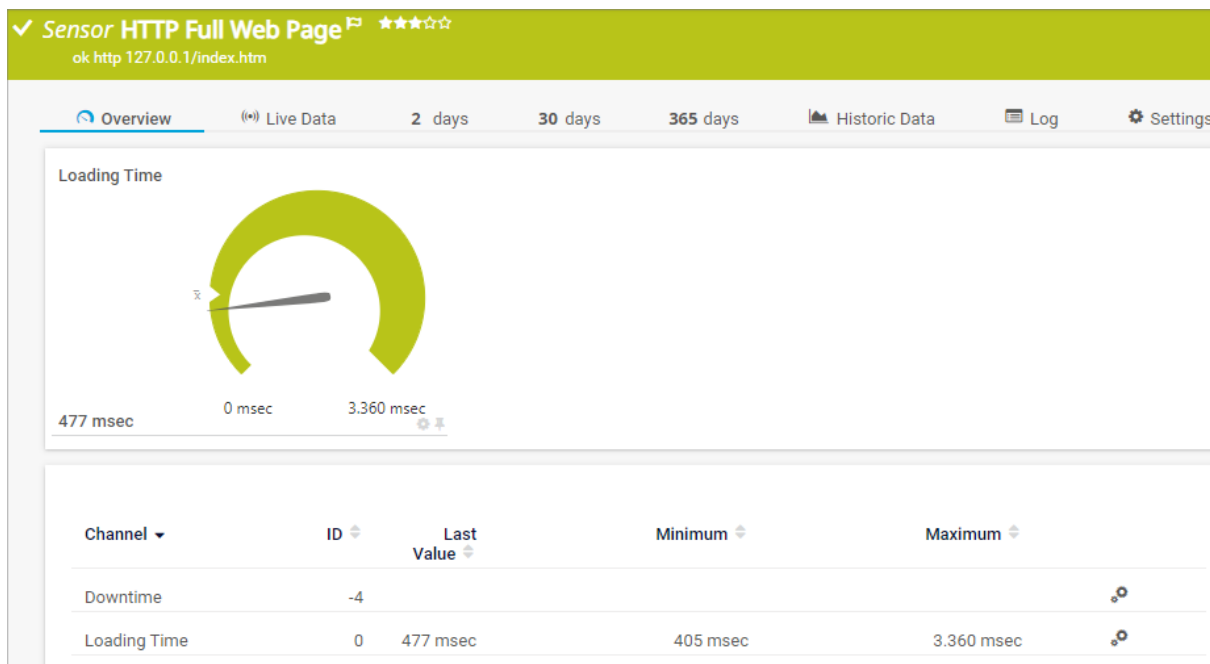
- [Channel Settings](#) 
- [Notification Triggers Settings](#) 

7.8.64 HTTP Full Web Page Sensor

The HTTP Full Web Page sensor monitors the full download time of a web page including assets such as images. In the background, it opens the web page in a browser instance to perform the measurement. It does not follow links.

i Be careful with this sensor because it can generate a considerable amount of internet traffic if you use it with a short scanning interval.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



HTTP Full Web Page Sensor

Sensor in Other Languages

- Dutch: HTTP Volledige Webpagina
- French: HTTP (page Web complète)
- German: HTTP (Komplette Webseite)
- Japanese: HTTP 完全ウェブページ監視
- Portuguese: HTTP Página Completa
- Russian: HTTP: -
- Simplified Chinese: HTTP 完整网页
- Spanish: HTTP Página Web Completa

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- This sensor does not support Secure Remote Password (SRP) ciphers.

- This sensor supports smart URL replacement.
- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [What to do when I see a CreateUniqueTempDir\(\) error message for my HTTP Full Web Page sensor?](#)
- See the Knowledge Base: [HTTP Full Web Page sensor is unable to navigate. What can I do?](#)
- See the Knowledge Base: [How can I change the size of PhantomJS full web page screenshots?](#)
- See the Knowledge Base: [Why is my HTTP Full Web Page sensor generating so many temporary files?](#)
- See the Knowledge Base: [Which HTTP status code leads to which HTTP sensor status?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list box containing 'exampletag' with a close button (X) and an add button (+).
- Priority:** A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree , as well as in alarms , logs , notifications , reports , maps , libraries , and tickets . ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe .

Setting	Description
	<p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ httpfullsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

Full Web Page Download Settings

Full Web Page Download Settings

Timeout (Sec.) ⓘ 20

URL ⓘ <https://www.mycompany.com/>

Browser Engine ⓘ

Chromium (recommended)

PhantomJS (Headless WebKit)

Internet Explorer

Security Context ⓘ

Use security context of PRTG probe service (default)

Use Windows credentials of parent device

Full Web Page Download Settings

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

Setting	Description
URL	<p>Enter the address of the web page that the sensor loads. If you enter an absolute URL, the sensor uses this address independently of the IP Address/DNS Name setting of the parent device.</p> <ul style="list-style-type: none"> ❗ The URL must be URL encoded. ■ PRTG uses a smart URL replacement with which you can use the parent device's IP address or Domain Name System (DNS) name setting as part of the URL. For more information, see section Smart URL Replacement¹²⁸⁰.
Browser Engine	<p>Define which browser engine the sensor uses to load the web page:</p> <ul style="list-style-type: none"> ▪ Chromium (recommended): Use the WebKit engine that is delivered with PRTG to measure the loading time. With each scanning interval, PRTG loads the URL in an instance of Chromium and measures the time it takes to fully load the page. This is the recommended setting. <ul style="list-style-type: none"> ❗ Chromium does not support TLS 1.2-only connections. In this case, we recommend that you use the PhantomJS engine or Internet Explorer instead. ▪ PhantomJS (Headless WebKit): Use the PhantomJS engine. This engine can have a high impact on the probe system's CPU and memory load but additional options for result handling¹²⁸¹ are available. ▪ Internet Explorer: With each scanning interval, the URL is loaded in the background in an instance of Internet Explorer. PRTG uses the Internet Explorer of the probe system. <ul style="list-style-type: none"> ❗ For full functionality, we strongly recommend that you install Internet Explorer 11 or higher on the probe system. ❗ If you select Internet Explorer as browser engine, you might face issues with the creation of temporary files. In this case, we recommend that you use the Chromium or the PhantomJS browser engines. For more information, see the Knowledge Base: Why is my HTTP Full Web Page sensor generating so many temporary files? ❗ All browser engines use the proxy settings from the Windows user account that the probe runs under (this is usually the local Windows "system" user account). To use a proxy, adjust the settings accordingly on the probe system (on all cluster nodes, if in a cluster). For more information, see the Knowledge Base: How can I access proxy settings for the HTTP Full Web Page Sensor?
Security Context	<p>Define the Windows user account that the sensor uses to run the browser engine:</p> <ul style="list-style-type: none"> ▪ Use security context of PRTG probe service (default): Run the browser engine under the same Windows user account that the probe runs under. By default, this is the local Windows "system" user account.

Setting	Description
Result Handling	<ul style="list-style-type: none"> ▪ Use Windows credentials of parent device: Use the Windows user account from the parent device settings ⁴⁵². ⓘ We recommended that you use this setting if you use Chromium as browser engine. <p>This setting is only visible if you select PhantomJS (Headless Webkit) above. Specify how the browser engine handles the web page result:</p> <ul style="list-style-type: none"> ▪ Discard result (recommended): Do not store the sensor result. ▪ Render and store a screenshot of most recent result as JPG: Render and store the web page result in the \Logs\sensors subfolder of the PRTG data directory ^{452b} on the probe system. The file name is Fullpage of Sensor (ID).jpg. This setting is for debugging purposes. PRTG overwrites the file with each scanning interval. ▪ Render and store screenshots of all results as JPGs (requires lots of disk space): Render and store one new screenshot of the web page with each sensor scan, and store the screenshots in the \Screenshots (Fullpage Sensor) subfolder of the PRTG data directory on the probe system. You can use this option to create a visual history of the web page. <ul style="list-style-type: none"> ⓘ Depending on the monitored website and the scanning interval of the sensor, this option can create a very high amount of data. Use this option with care and make sure you set appropriate data purging limits in the Core & Probes ^{420b} settings. ■ If necessary, you can change the window size of the rendered screenshots. For details, see the Knowledge Base: How can I change the size of PhantomJS full web page screenshots? ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.
Authentication	<p>This setting is only visible if you select PhantomJS (Headless WebKit) above. Define if the monitored web page needs authentication for access:</p> <ul style="list-style-type: none"> ▪ Web page does not need authentication: Access to the web page is granted without authentication. ▪ Web page needs authentication: PRTG automatically tries to use HTTP basic authentication (BA) or Windows NT LAN Manager (NTLM) to access the web page with authentication. Enter the credentials below. <ul style="list-style-type: none"> ⓘ Basic access authentication forwards the credentials in plain text.
User Name	<p>This setting is only visible if you select PhantomJS (Headless Webkit) above. Enter the user name for the web page.</p>
Password	<p>This setting is only visible if you select PhantomJS (Headless Webkit) above. Enter the password for the web page.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management.</p>

Smart URL Replacement

Instead of entering a complete address in the URL field of an HTTP sensor, you can only enter the protocol followed by a colon and three forward slashes (this means that you can enter either [http://](#) or [https://](#), or even a simple forward slash / as the equivalent for [http://](#)). PRTG automatically fills in the parent device's IP address or DNS name in front of the third forward slash.

Whether this results in a valid URL or not depends on the IP address or Domain Name System (DNS) name of the parent device. In combination with cloning devices, you can use smart URL replacement to create many similar devices.


For example, if you create a device with the DNS name [www.mycompany.com](#) and you add an HTTP sensor to it, you can provide values in the following ways:

- If you enter [https://](#) in the URL field, PRTG automatically creates the URL [https://www.mycompany.com/](#)
- If you enter [/help](#) in the URL field, PRTG automatically creates and monitor the URL [http://www.mycompany.com/help](#)
- It is also possible to provide a port number in the URL field. It is taken over by the device's DNS name and is internally added, for example, [http://:8080/](#)

i Smart URL replacement does not work for sensors that run on the probe device.

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Loading Time	The loading time of the full web page in milliseconds (msec)  This channel is the primary channel by default.

More

■ KNOWLEDGE BASE

What to do when I see a CreateUniqueTempDir() error message for my HTTP Full Web Page sensor?

- <https://kb.paessler.com/en/topic/40783>

HTTP Full Web Page sensor is "unable to navigate". What can I do?

- <https://kb.paessler.com/en/topic/59999>

How can I change the size of PhantomJS full web page screenshots?

- <https://kb.paessler.com/en/topic/60247>

Why is my HTTP Full Web Page Sensor generating so many temporary files?

- <https://kb.paessler.com/en/topic/65758>

Which HTTP status code leads to which HTTP sensor status?

- <https://kb.paessler.com/en/topic/65731>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What is the difference between "HTTP" and "HTTP Full Web Page" web server sensors?

- <https://kb.paessler.com/en/topic/943>

How can I access proxy settings for the HTTP Full Web Page sensor?




- <https://kb.paessler.com/en/topic/81408>

My HTTP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/85284>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977

- [Notification Triggers Settings](#) 

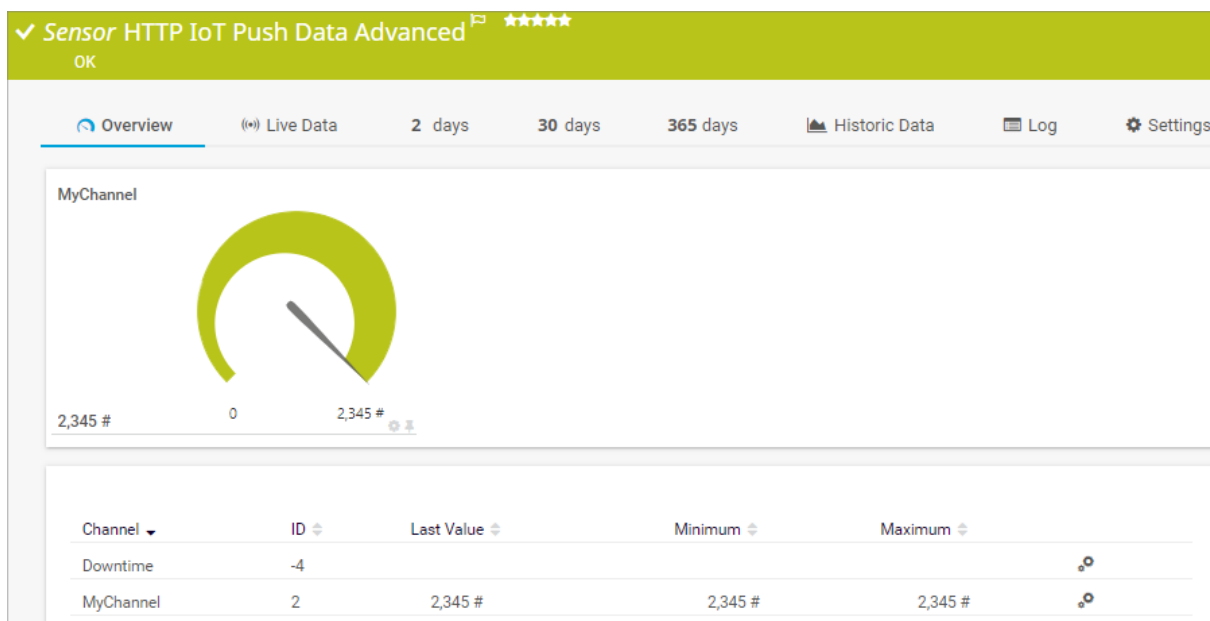
7.8.65 HTTP IoT Push Data Advanced Sensor

The HTTP IoT Push Data Advanced sensor displays data from messages that are received from Internet of Things (IoT) capable devices (for example, Sigfox devices) and that are pushed via an HTTPS request to PRTG. It provides a URL that you can use to push messages to the probe system via HTTPS (secured with TLS 1.2).

i This sensor is especially useful when you want to push data to a PRTG Hosted Monitor instance.

■ For more information about the sensor usage, see section [How to Use](#)¹²⁹⁹.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)¹³⁰⁰.



HTTP IoT Push Data Advanced Sensor

Sensor in Other Languages

- Dutch: HTTP IoT Push Data Geavanceerd
- French: Données avancées Push HTTP IoT
- German: HTTP IoT Push-Daten (Erweitert)
- Japanese: HTTP IoT プッシュデータ (アドバンスト)
- Portuguese: Dados de push IoT HTTP avançados
- Russian: push- HTTP IoT
- Simplified Chinese: HTTP IoT 高级推送数据
- Spanish: HTTP Push de datos IoT Avanzado

Remarks

- This sensor has a fixed port (5051). You cannot change it.
- This sensor has a fixed SSL/TLS version (HTTPS secured with TLS 1.2 only). You cannot change it.

- If you use this sensor with multiple channels, we recommend that you [simultaneously](#) push the data for [all](#) your channels to PRTG. You can push data to only one of your channels but, in this case, all other channels record the value of **0** for this push message.
- If you want to install this sensor on a remote probe and use an HTTPS connection to send push notifications, you need to make sure that you import the same Secure Sockets Layer (SSL) certificates to the `\cert` subfolder of the [PRTG program directory](#) on the remote probe that you use on the PRTG core server.
 ■ For more information, see the PRTG Manual: [Using Your Own SSL Certificate with the PRTG Web Server](#).
- You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
- This sensor might result in false alerts if the parent probe disconnects from the PRTG core server. In this case, the sensor shows the error message: [The latest push message that the sensor received is older than the specified time threshold allows.](#) (code: PE222).
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- For more information about the sensor usage, see the PRTG Manual: [How to Use](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list box containing 'exampletag' with a close button (X) and an add button (+).
- Priority:** A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree , as well as in alarms , logs , notifications , reports , maps , libraries , and tickets .

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ pushsensor ▪ pushdata ▪ httppushsensor ▪ iot ▪ sigfox
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SSL/TLS Settings

SSL/TLS Settings

SSL/TLS Version ⓘ *HTTPS (secured with TLS 1.2 only)*

SSL/TLS Port ⓘ *5051*

SSL/TLS Settings

Setting	Description
SSL/TLS Version	<p>The security of the incoming HTTPS push requests:</p> <ul style="list-style-type: none"> ▪ HTTPS (secured with TLS 1.2 only): Send push messages to the probe system via HTTPS. The sensor only supports connections that are secured with TLS 1.2. It uses the SSL certificate that is delivered with PRTG or your own trusted SSL certificate ⁴⁵³⁷ that you imported for the PRTG web server. <p>i If you install the sensor on a remote probe, make sure that you import the same SSL certificates to the remote probe as you use on the PRTG core server.</p> <p>i PRTG shows this setting for your information only. You cannot change it.</p>
SSL/TLS Port	<p>The number of the port on which this sensor listens for incoming HTTPS requests. This is always 5051.</p> <p>i PRTG shows this setting for your information only. You cannot change it.</p>

HTTP Push Authentication

HTTP Push Authentication

Identification Token **i** 9ACF62D4-4911-4C0C-9C98-A4CAAB3E26CC

HTTP Push Data

Setting	Description
Identification Token	<p>This is the token that PRTG uses to find the matching sensor for the incoming message. When you create the sensor, this token is <code>{_guid_}</code>.</p> <p>PRTG replaces this token with an automatically generated token after sensor creation. If you want to use a different identification token, you can edit it during or after sensor creation.</p> <p>i PRTG does not automatically replace the token if you change it already during sensor creation.</p>

HTTP Push Data

HTTP Push Data

No Incoming Data **i**

- Ignore and keep last status (default)
- Switch to unknown status
- Switch to down status after x minutes

HTTP Push Data

Setting	Description
No Incoming Data	<p>Define which status ¹⁹⁷ the sensor shows if it does not receive a push message for at least two scanning intervals:</p> <ul style="list-style-type: none"> Ignore and keep last status (default): Keep the status as defined by the last message that the sensor received. <ul style="list-style-type: none"> i The parent probe must be connected to keep the last status. If the parent probe disconnects, the sensor shows the Unknown status. If the parent probe connects again, the sensor does not automatically switch from the Unknown status to the last status before the parent probe disconnected. Switch to unknown status: Show the Unknown status if the sensor does not receive a message for at least two scanning intervals. Switch to down status after x minutes: Show the Down status if the sensor does not receive a message within a specific time span. Define the time threshold below.
Time Threshold (Minutes)	<p>This setting is only visible if you select Switch to down status after x minutes above. Enter a time threshold in minutes. If this time elapses, the sensor shows the Down status if it does not receive a push message within this time span.</p> <p>Enter an integer value. The maximum threshold is 1440 minutes.</p>

Sensor Display


Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management^[153].</p>

How to Use

This function is known as a [webhook](#). Basically, a webhook works like a push notification. Webhooks are usually triggered by an event (for example, a new comment on a blog post) and send according information to a specified URL. The HTTP IoT Push Data Advanced sensor then displays the data of pushed and received messages.

 The data that is pushed to this sensor must be valid XML or JSON.

 For details about the return value format, see section [Custom Sensors](#)^[4440].

The HTTP IoT Push Data Advanced sensor uses the following URLs depending on the type of HTTPS request.

- GET requests: `https://<probe_ip>:5051/<token>?content=<valid XML_or_JSON>`

The XML-encoded value of the content parameter has to match the format defined in section [Custom Sensors](#) ⁴⁴⁴⁰.

- POST requests: `https://<probe_ip>:5051/<token>`

This HTTPS request method sends the XML-encoded or JSON-encoded HTTPS body as POST data. The body has to match the format defined in section [Custom Sensors](#) ⁴⁴⁴⁰. We strongly recommend the HTTPS content type `application/xml` or `application/json`.

Replace the parameters `<probe_ip>`, `<token>`, and `<valid XML_or_JSON>` (for GET requests) with the corresponding values:

- For PRTG on premises, the probe IP is the IP address of the probe system. For PRTG Hosted Monitor instances, the probe IP is the Domain Name System (DNS) name of the instance.
- The port number is always `5051`. You cannot change this.
- You can define identification token in the sensor settings.
- The content of GET requests has to be valid XML or JSON in the PRTG API format.
 - ① The content has to be URL encoded (for example, the whitespaces in the sample URL below). Most browsers do the URL-encoding automatically.

Minimum example for the GET method that returns one static channel value:

```
https://127.0.0.1:5051/XYZ123?
content=<prtg><result><channel>MyChannel</channel><value>10</value></result><text>this
%20is%20a%20message</text></prtg>
```

- ① By default, values within the `<value>` tags in the returned XML or JSON must be `integers` for them to be processed. If `float` values are returned, you have to explicitly define this value type as defined in section [Custom Sensors](#) ⁴⁴⁴² with `<float>` tags, otherwise the sensor shows 0 values in affected channels. Example:



```
https://127.0.0.1:5051/XYZ123?
content=<prtg><result><channel>MyChannel</channel><value>10.45</value><float>1</float>
</result><text>this%20is%20a%20message</text></prtg>
```

- ① You can use several sensors with the same port and identification token. In this case, push message data is shown in each of these sensors.

Channel List

- ① Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
[Value]	<p>The data received from the message encoded in valid Extensible Markup Language (XML) or JavaScript Object Notation (JSON) in several channels</p> <p> This channel is the primary channel by default.</p> <p> For details about the return value format, see section Custom Sensors⁴⁴⁴⁶.</p>

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How can I monitor Sigfox geolocation with PRTG?

- <https://kb.paessler.com/en/topic/80157>

How can I monitor the Sigfox API with PRTG?

- <https://kb.paessler.com/en/topic/80346>

How can I monitor Sigfox callbacks with PRTG?

- <https://kb.paessler.com/en/topic/80232>

My HTTP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/85284>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

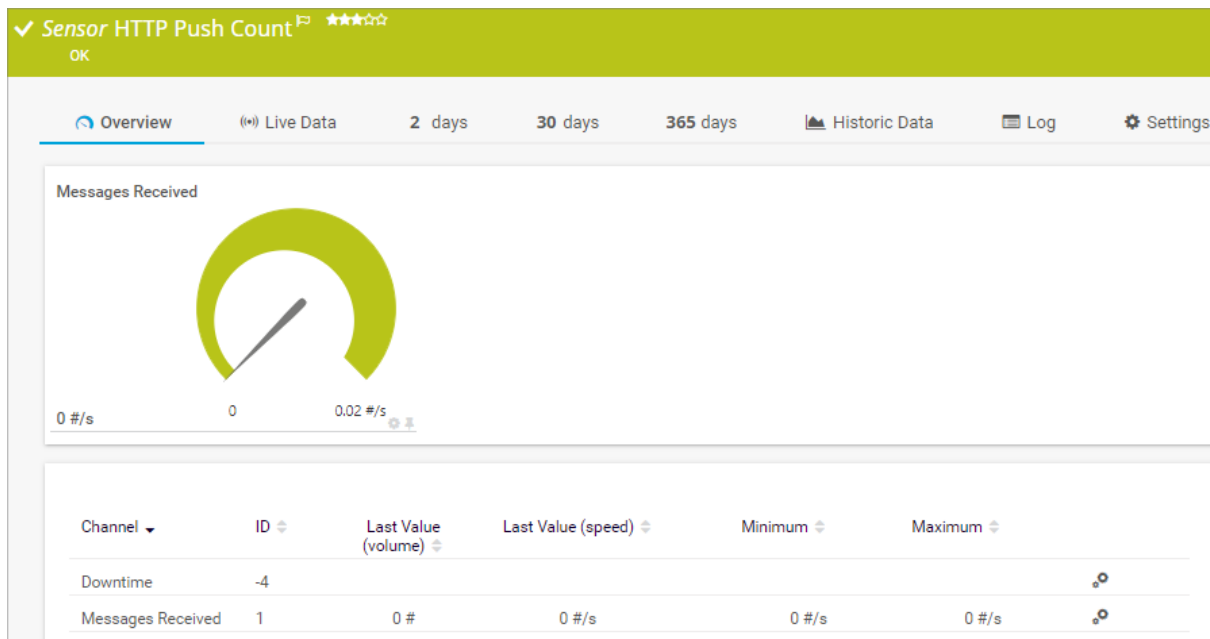
- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.8.66 HTTP Push Count Sensor

The HTTP Push Count sensor counts received messages that are pushed via an HTTP request to PRTG. It provides a URL that you can use to push messages to the probe system via HTTP (secured with TLS 1.2 or not secure).

For more information about the sensor usage, see section [How to Use](#) ¹³¹¹.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ¹³¹².



HTTP Push Count Sensor

Sensor in Other Languages

- Dutch: HTTP Push Aantal
- French: Nombre de Push HTTP
- German: HTTP Push-Anzahl
- Japanese: HTTP プッシュ数
- Portuguese: Contagem de push HTTP
- Russian: HTTP: push-
- Simplified Chinese: HTTP 推送计数
- Spanish: Recuento HTTP Push

Remarks

- If you want to install this sensor on a remote probe and use an HTTPS connection to send push notifications, you need to make sure that you import the same Secure Sockets Layer (SSL) certificates to the \cert subfolder of the [PRTG program directory](#) on the remote probe that you use on the PRTG core server.
■ For more information, see the PRTG Manual: [Using Your Own SSL Certificate with the PRTG Web Server](#).
 - You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
 - This sensor supports the IPv6 protocol.
 - This sensor has a low performance impact.
 - For more information about the sensor usage, see the PRTG Manual: [How to Use](#).
- ☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

HTTP Push

Setting	Description
SSL/TLS Settings	<p>Define the security of the incoming HTTP push requests:</p> <ul style="list-style-type: none"> ▪ HTTP (unsecure): Send push messages to the probe system via HTTP (not secure). ▪ HTTPS (secured with TLS 1.2 only): Send push messages to the probe system via HTTPS. The sensor only supports connections secured with TLS 1.2. It uses the SSL certificate that is delivered with PRTG or your own trusted SSL certificate that you imported for the PRTG web server. i If you install the sensor on a remote probe, make sure that you import the same SSL certificates to the remote probe that you use on the PRTG core server.
Port	This setting is only visible if you enable HTTP (unsecure) above. Enter the number of the port on which this sensor listens for incoming HTTP requests. The default port is 5050.
SSL/TLS Port	This setting is only visible if you enable HTTPS (secured with TLS 1.2 only) above. Enter the number of the port on which this sensor listens for incoming HTTPS requests. The default port is 5051.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ pushsensor ▪ pushcount ▪ httppushsensor

Setting	Description
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HTTP Push

HTTP Push

SSL/TLS Settings ⓘ *HTTP (unsecure)*

Port ⓘ 5050

Request Method ⓘ ANY
 GET
 POST

Identification Token ⓘ

Request Handling ⓘ Discard request
 Store request

HTTP Push

Setting	Description
SSL/TLS Settings	Shows whether the sensor accepts push messages via HTTP or HTTPS. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Port	This setting is only visible for sensors that accept push messages via HTTP. It shows the port number on which this sensor listens for incoming HTTP requests. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
SSL/TLS Port	This setting is only visible for sensors that accept push messages via HTTPS. It shows the port number on which this sensor listens for incoming HTTPS requests. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Setting	Description
Request Method	<p>Select the request method of the webhook:</p> <ul style="list-style-type: none"> ▪ ANY: Do not use any filter for the request method. ▪ GET: Select this method if the webhook uses GET. ▪ POST: Select this method if the webhook sends POST data. <ul style="list-style-type: none"> ❗ POST data must be form-encoded request bodies with the same parameters as for GET requests.
Identification Token	<p>This is the token that PRTG uses to find the matching sensor for the incoming message. When you create the sensor, this token is <code>{__guid__}</code>.</p> <p>PRTG replaces this token with an automatically generated token after sensor creation. If you want to use a different identification token, you can edit it during or after sensor creation.</p> <p>❗ PRTG does not automatically replace the token if you change it already during sensor creation.</p>
Request Handling	<p>Define what PRTG does with the incoming messages:</p> <ul style="list-style-type: none"> ▪ Discard request: Do not store the pushed messages. ▪ Store request: Store the last message received from the sensor in the <code>\Logs\sensors</code> subfolder of the PRTG data directory on the probe system. The file name is <code>Request for Sensor [ID].txt</code>. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval.

Sensor Display


Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>❗ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>

Setting	Description
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management^[153].</p>

How to Use

This function is known as [webhook](#). Basically, a webhook works like a push notification. Webhooks are usually triggered by an event (for example, a new comment on a blog post) and send according information to a specified URL. The HTTP Push Count sensor then displays the number of pushed and received messages.

The HTTP Push Count sensor uses the following URL:

`http://<probe_ip>:<port_number>/<token>`

Replace the parameters `<probe_ip>`, `<port_number>`, and `<token>` with the corresponding values.

- The `<probe_ip>` is the IP address of the probe system with the sensor.

- The `<port_number>` is where the sensor listens for incoming HTTP calls.
- The `<token>` is used to define the matching sensor.

Example:

```
http://192.0.2.0:5050/XYZ123
```

- ⓘ You can use several sensors with the same port and identification token. In this case, the number of push messages is shown in each of these sensors.

Channel List

- ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Messages Received	The number of messages received per second <ul style="list-style-type: none"> ⓘ This channel is the primary channel by default.

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

My HTTP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/85284>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

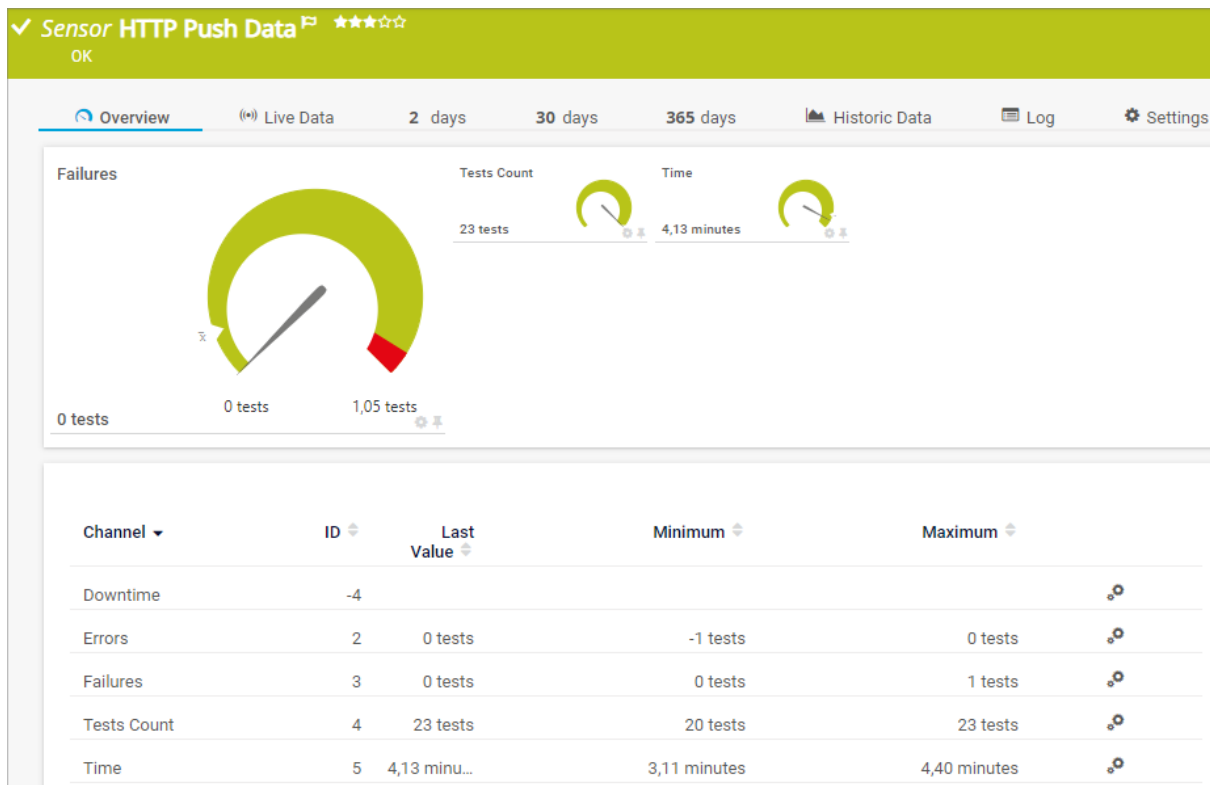
- [List of Available Sensor Types](#) 4581
- [Additional Sensor Types \(Custom Sensors\)](#) 3972
- [Channel Settings](#) 3977
- [Notification Triggers Settings](#) 3987

7.8.67 HTTP Push Data Sensor

The HTTP Push Data sensor displays numeric values from received messages that are pushed via an HTTP request to PRTG. It provides a URL that you can use to push messages to the probe system via HTTP (secured with TLS 1.2 or not secure).

For more information about the sensor usage, see section [How to Use](#).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



HTTP Push Data Sensor

Sensor in Other Languages

- Dutch: HTTP Push Data
- French: Données Push HTTP
- German: HTTP Push-Daten
- Japanese: HTTP プッシュデータ
- Portuguese: Dados HTTP via Push
- Russian: push- HTTP
- Simplified Chinese: HTTP 推送数据
- Spanish: HTTP Push de datos

Remarks

- If you want to install this sensor on a remote probe and use an HTTPS connection to send push notifications, you need to make sure that you import the same Secure Sockets Layer (SSL) certificates to the \cert subfolder of the [PRTG program directory](#) on the remote probe that you use on the PRTG core server.
■ For more information, see the PRTG Manual: [Using Your Own SSL Certificate with the PRTG Web Server](#).
 - You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
 - This sensor might result in false alerts if the parent probe disconnects from the PRTG core server. In this case, the sensor shows the error message: [The latest push message that the sensor received is older than the specified time threshold allows. \(code: PE222\)](#).
 - This sensor supports the IPv6 protocol.
 - This sensor has a low performance impact.
 - For more information about the sensor usage, see the PRTG Manual: [How to Use](#).
- ☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

HTTP Push

Setting	Description
SSL/TLS Settings	<p>Define the security of the incoming HTTP push requests:</p> <ul style="list-style-type: none"> ▪ HTTP (unsecure): Send push messages to the probe system via HTTP (not secure). ▪ HTTPS (secured with TLS 1.2 only): Send push messages to the probe system via HTTPS. The sensor only supports connections secured with TLS 1.2. It uses the SSL certificate that is delivered with PRTG or your own trusted SSL certificate that you imported for the PRTG web server. ❗ If you install the sensor on a remote probe, make sure that you import the same SSL certificates to the remote probe that you use on the PRTG core server.
Port	<p>This setting is only visible if you enable HTTP (unsecure) above. Enter the number of the port on which this sensor listens for incoming HTTP requests. The default port is 5050.</p>

Setting	Description
SSL/TLS Port	This setting is only visible if you enable HTTPS (secured with TLS 1.2 only) above. Enter the number of the port on which this sensor listens for incoming HTTPS requests. The default port is 5051.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus icon, and a 'Priority' field with five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
SSL/TLS Port	This setting is only visible for sensors that accept push messages via HTTPS. It shows the port number on which this sensor listens for incoming HTTPS requests.
Request Method	Select the request method of the webhook: <ul style="list-style-type: none"> ▪ ANY: Do not use any filter for the request method. ▪ GET: Select this method if the webhook uses GET. ▪ POST: Select this method if the webhook sends POST data. <ul style="list-style-type: none"> ❗ POST data must be form-encoded request bodies with the same parameters as for GET requests.
Identification Token	This is the token that PRTG uses to find the matching sensor for the incoming message. When you create the sensor, this token is <code>{_guid_}</code> . PRTG replaces this token with an automatically generated token after sensor creation. If you want to use a different identification token, you can edit it during or after sensor creation. <ul style="list-style-type: none"> ❗ PRTG does not automatically replace the token if you change it already during sensor creation.
Request Handling	Define what PRTG does with the incoming messages: <ul style="list-style-type: none"> ▪ Discard request: Do not store the pushed messages. ▪ Store request: Store the last message received from the sensor in the <code>\Logs\sensors</code> subfolder of the PRTG data directory on the probe system. The file name is <code>Request for Sensor [ID].txt</code>. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval.

HTTP Push Data

HTTP Push Data

No Incoming Data ⓘ

Ignore and keep last status (default)

Switch to unknown status

Switch to down status after x minutes

Value Type ⓘ

Integer

Float

HTTP Push Data

Setting	Description
No Incoming Data	<p>Define which status the sensor shows if it does not receive a push message for at least two scanning intervals:</p> <ul style="list-style-type: none"> Ignore and keep last status (default): Keep the status as defined by the last message that the sensor received. <ul style="list-style-type: none"> i The parent probe must be connected to keep the last status. If the parent probe disconnects, the sensor shows the Unknown status. If the parent probe connects again, the sensor does not automatically switch from the Unknown status to the last status before the parent probe disconnected. Switch to unknown status: Show the Unknown status if the sensor does not receive a message for at least two scanning intervals. Switch to down status after x minutes: Show the Down status if the sensor does not receive a message within a specific time span. Define the time threshold below.
Time Threshold (Minutes)	<p>This setting is only visible if you select Switch to down status after x minutes above. Enter a time threshold in minutes. If this time elapses, the sensor shows the Down status if it does not receive a push message within this time span.</p> <p>Enter an integer value. The maximum threshold is 1440 minutes.</p>
Value Type	<p>Define the type of the value of the received data:</p> <ul style="list-style-type: none"> Integer Float (with a dot . between the predecimal position and the decimal places) <p>i If this setting does not match, the sensor shows the Down status.</p>

Sensor Display




Sensor Display

Primary Channel Downtime


Graph Type
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p>

Setting	Description
	<p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁸⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval  60 seconds

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds

Setting	Description
	<ul style="list-style-type: none"> ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p>

Setting	Description
	<p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root


Schedule **i**

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

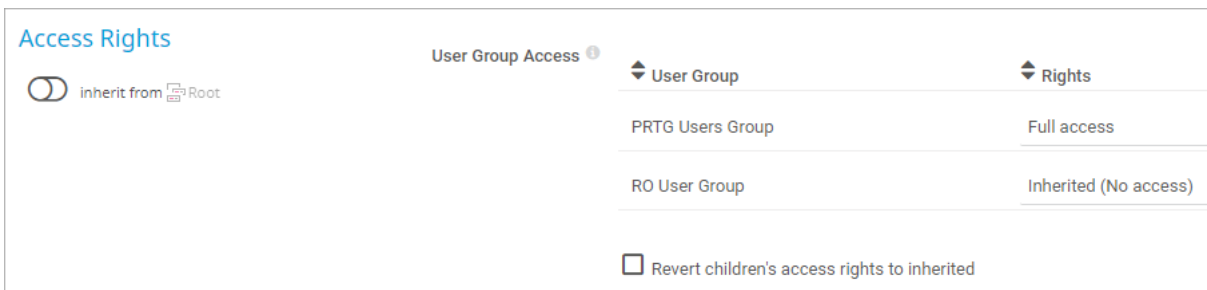
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p>

Setting	Description
Maintenance Begins	<ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights

Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

How to Use

This function is known as **webhook**. Basically, a webhook works like a push notification. Webhooks are usually triggered by an event (for example, a new comment on a blog post) and send according information to a specified URL. The HTTP Push Data sensor then displays the data of pushed and received messages.

The HTTP Push Data sensor uses the following URL:

```
http://<probe_ip>:<port_number>/<token>?value=<integer_or_float>&text=<text message>
```

Replace the parameters **<probe_ip>**, **<port_number>**, **<token>**, and **<integer_or_float>** with the corresponding values. The **&text** parameter is optional: You can omit it.

- You can define the port number and identification token in the sensor settings.
- The probe IP is the IP address of the probe system with this sensor.
- The value can be an integer or a float value depending on the data of your application. You have to set the value type accordingly in the sensor settings. This parameter is the sensor value.
 - ❶ If this parameter is missing, the sensor shows a Down [status](#)^[197].
- You can optionally add a custom text message by replacing the parameter **<text message>** with your custom text. The text is shown as the sensor message. If there is no value but only a text, the text is shown as an error message.
 - ❶ This text message has to be URL encoded (for example, the whitespaces in the sample URL below). Most browsers do URL-encoding automatically.

Example:

```
http://192.0.2.0:5050/XYZ123?value=0&text=this%20is%20a%20message
```

- ❶ You can use several sensors with the same port and identification token. In this case, the data of push messages is shown in each of these sensors.

Channel List

- ❶ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	The received value and an optional message in one channel ❶ This channel is the primary channel by default.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My HTTP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/85284>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

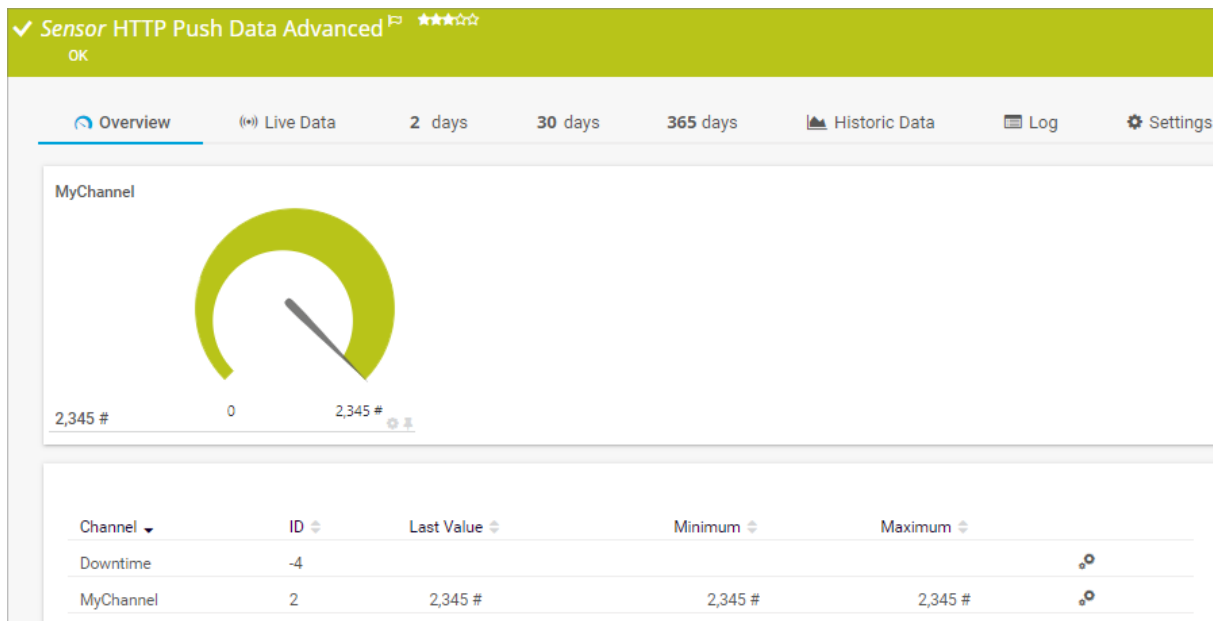
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3967

7.8.68 HTTP Push Data Advanced Sensor

The HTTP Push Data Advanced sensor displays data from received messages that are pushed via an HTTP request to PRTG. It provides a URL that you can use to push messages to the probe system via HTTP (secured with TLS 1.2 or not secure).

For more information about the sensor usage, see section [How to Use](#) ¹³³⁶.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ¹³³⁷.



HTTP Push Data Advanced Sensor

Sensor in Other Languages

- Dutch: HTTP Push Data geavanceerd
- French: Données avancées Push HTTP
- German: HTTP Push-Daten (Erweitert)
- Japanese: HTTP プッシュデータ(アドバンスト)
- Portuguese: Dados HTTP Avançado via Push
- Russian: HTTP: push- ()
- Simplified Chinese: HTTP 高级推送数据
- Spanish: HTTP Push de datos Avanzado

Remarks

- If you use this sensor with multiple channels, we recommend that you **simultaneously** push the data for **all** your channels to PRTG. You can push data to only one of your channels but, in this case, all other channels record the value of **0** for this push message.

- If you want to install this sensor on a remote probe and use an HTTPS connection to send push notifications, you need to make sure that you import the same Secure Sockets Layer (SSL) certificates to the \cert subfolder of the [PRTG program directory](#) on the remote probe that you use on the PRTG core server.
 - For more information, see the PRTG Manual: [Using Your Own SSL Certificate with the PRTG Web Server](#)
 - You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
 - This sensor might result in false alerts if the parent probe disconnects from the PRTG core server. In this case, the sensor shows the error message: [The latest push message that the sensor received is older than the specified time threshold allows. \(code: PE222\)](#).
 - This sensor supports the IPv6 protocol.
 - This sensor has a low performance impact.
 - For more information about the sensor usage, see the PRTG Manual: [How to Use](#).
- ☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

HTTP Push

Setting	Description
SSL/TLS Settings	Define the security of the incoming HTTP push requests: <ul style="list-style-type: none"> ▪ HTTP (unsecure): Send push messages to the probe system via HTTP (not secure). ▪ HTTPS (secured with TLS 1.2 only): Send push messages to the probe system via HTTPS. The sensor only supports connections secured with TLS 1.2. It uses the SSL certificate that is delivered with PRTG or your own trusted SSL certificate that you imported for the PRTG web server. <ul style="list-style-type: none"> ⓘ If you install the sensor on a remote probe, make sure that you import the same SSL certificates to the remote probe that you use on the PRTG core server.
Port	This setting is only visible if you enable HTTP (unsecure) above. Enter the number of the port on which this sensor listens for incoming HTTP requests. The default port is 5050.
SSL/TLS Port	This setting is only visible if you enable HTTPS (secured with TLS 1.2 only) above. Enter the number of the port on which this sensor listens for incoming HTTPS requests. The default port is 5051.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ pushsensor ▪ pushdata ▪ httppushsensor

Setting	Description
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HTTP Push

HTTP Push

SSL/TLS Settings ⓘ *HTTP (unsecure)*

Port ⓘ 5050

Request Method ⓘ ANY
 GET
 POST

Identification Token ⓘ

Request Handling ⓘ Discard request
 Store request

HTTP Push

Setting	Description
SSL/TLS Settings	Shows whether the sensor accepts push messages via HTTP or HTTPS.
Port	This setting is only visible for sensors that accept push messages via HTTP. It shows the port number on which this sensor listens for incoming HTTP requests.
SSL/TLS Port	This setting is only visible for sensors that accept push messages via HTTPS. It shows the port number on which this sensor listens for incoming HTTPS requests.
Request Method	Select the request method of the webhook: <ul style="list-style-type: none"> ▪ ANY: Do not use any filter for the request method. ▪ GET: Select this method if the webhook uses GET.

Setting	Description
	<ul style="list-style-type: none"> POST: Select this method if the webhook sends POST data. <ul style="list-style-type: none"> i POST data must be form-encoded request bodies with the same parameters as for GET requests.
Identification Token	<p>This is the token that PRTG uses to find the matching sensor for the incoming message. When you create the sensor, this token is <code>{__guid__}</code>.</p> <p>PRTG replaces this token with an automatically generated token after sensor creation. If you want to use a different identification token, you can edit it during or after sensor creation.</p> <ul style="list-style-type: none"> i PRTG does not automatically replace the token if you change it already during sensor creation.
Request Handling	<p>Define what PRTG does with the incoming messages:</p> <ul style="list-style-type: none"> Discard request: Do not store the pushed messages. Store request: Store the last message received from the sensor in the <code>\Logs\sensors</code> subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file name is <code>Request for Sensor [ID].txt</code>. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval.

HTTP Push Data

HTTP Push Data

No Incoming Data **i**
 Ignore and keep last status (default)
 Switch to unknown status
 Switch to down status after x minutes

HTTP Push Data

Setting	Description
No Incoming Data	<p>Define which status¹⁹⁷ the sensor shows if it does not receive a push message for at least two scanning intervals:</p> <ul style="list-style-type: none"> Ignore and keep last status (default): Keep the status as defined by the last message that the sensor received. <ul style="list-style-type: none"> i The parent probe must be connected to keep the last status. If the parent probe disconnects, the sensor shows the Unknown status. If the parent probe connects again, the sensor does not automatically switch from the Unknown status to the last status before the parent probe disconnected. Switch to unknown status: Show the Unknown status if the sensor does not receive a message for at least two scanning intervals.

Setting	Description
Time Threshold (Minutes)	<ul style="list-style-type: none"> Switch to down status after x minutes: Show the Down status if the sensor does not receive a message within a specific time span. Define the time threshold below. <p>This setting is only visible if you select Switch to down status after x minutes above. Enter a time threshold in minutes. If this time elapses, the sensor shows the Down status if it does not receive a push message within this time span.</p> <p>Enter an integer value. The maximum threshold is 1440 minutes.</p>

Sensor Display

Sensor Display


Primary Channel Downtime

Graph Type Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


For more information, see section [Inheritance of Settings](#).


Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval


Scanning Interval  60 seconds



inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

How to Use

This function is known as [webhook](#). Basically, a webhook works like a [push notification](#). Webhooks are usually triggered by some event (for example, a new comment on a blog post) and send according information to a specified URL. The HTTP Push Data Advanced sensor then displays the data of pushed and received messages.

The data that is pushed to this sensor must be valid XML or JSON.

■ For details about the return value format, see section [Custom Sensors](#) ⁴⁴⁴⁰.

The HTTP Push Data Advanced sensor uses the following URLs depending on the type of HTTP request.

- GET requests: `http://<probe_ip>:<port_number>/<token>?content=<valid XML_or_JSON>`

The XML encoded value of the content parameter has to match the format as defined in section [Custom Sensors](#) ⁴⁴⁴⁰.

- POST requests: `http://<probe_ip>:<port_number>/<token>`

This HTTP request method sends the XML or JSON encoded HTTP body as POST data. The body has to match the format as defined in section [Custom Sensors](#)^[4440]. For POST requests, use an HTTP content type other than `application/x-www-form-urlencoded`. We strongly recommend the HTTP content type `application/xml` or `application/json`.

Replace the parameters `<probe_ip>`, `<port_number>`, `<token>`, and `<valid XML_or_JSON>` (for GET requests) with the corresponding values:

- You can define port number and identification token in the sensor settings.
- The probe IP is the IP address of the probe system with this sensor.
- The content of GET requests has to be valid XML or JSON in the PRTG API format.
 - ❗ The content has to be URL encoded (for example, the whitespaces in the sample URL below). Most browsers do URL-encoding automatically.

Minimum example for the GET method that returns one static channel value:

```
http://127.0.0.1:5050/XYZ123?
content=<prtg><result><channel>MyChannel</channel><value>10</value></result><text>this
%20is%20a%20message</text></prtg>
```

- ❗ By default, values within the `<value>` tags in the returned XML or JSON must be `integers` to be processed. If `float` values are returned, you have to explicitly define this value type as defined in section [Custom Sensors](#)^[4442] with `<float>` tags, otherwise the sensor shows 0 values in affected channels. Example:




```
http://127.0.0.1:5050/XYZ123?
content=<prtg><result><channel>MyChannel</channel><value>10.45</value><float>1</float>
</result><text>this%20is%20a%20message</text></prtg>
```

- ❗ You can use several sensors with the same port and identification token. In this case, the data of push messages is shown in each of these sensors.

Channel List

- ❗ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	The data received from the message encoded in valid Extensible Markup Language (XML) or JavaScript Object Notation (JSON) in several channels

Channel	Description
	<p> This channel is the primary channel by default.</p> <p> For details about the return value format, see section Custom Sensors .</p>

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My HTTP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/85284>

Sensor Settings Overview

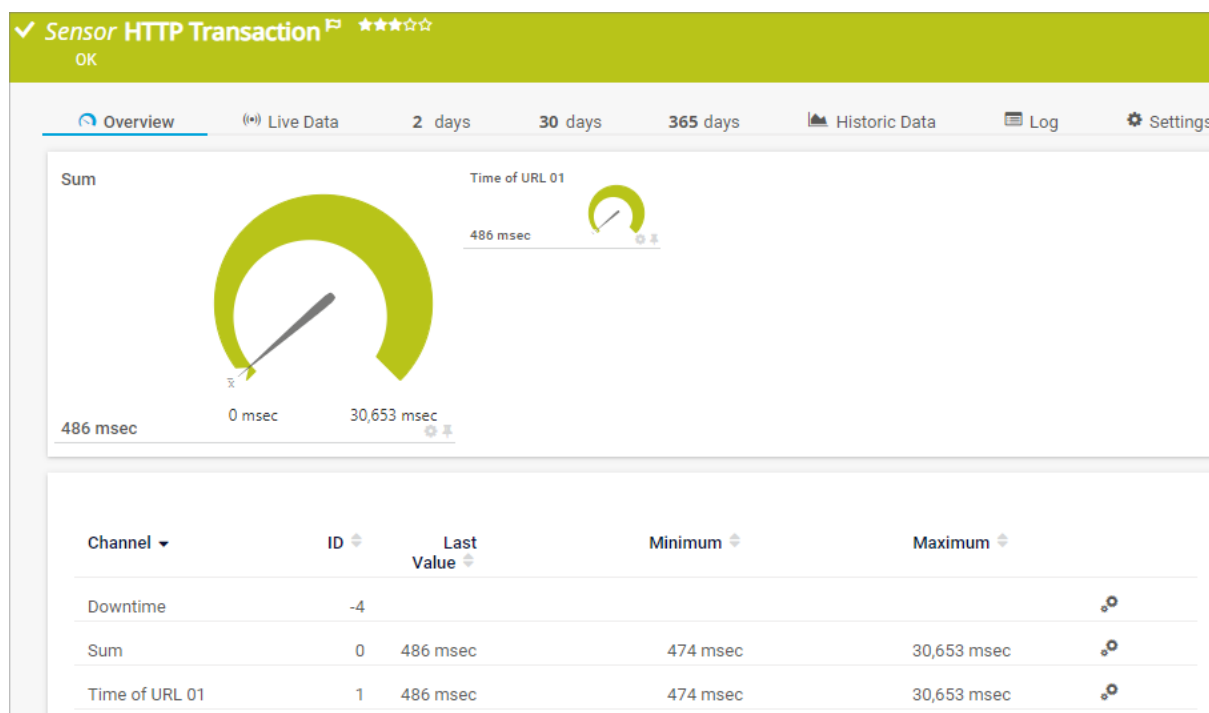
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#) 
- [Additional Sensor Types \(Custom Sensors\)](#) 
- [Channel Settings](#) 
- [Notification Triggers Settings](#) 

7.8.69 HTTP Transaction Sensor

The HTTP Transaction sensor monitors an interactive website, such as a web shop, by performing a transaction using a set of HTTP URLs. The sensor monitors whether logins or shopping carts work properly.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



HTTP Transaction Sensor

Sensor in Other Languages

- Dutch: HTTP (Transactie)
- French: Transaction HTTP
- German: HTTP (Transaktion)
- Japanese: HTTP トランザクション
- Portuguese: Transação HTTP
- Russian: HTTP
- Simplified Chinese: HTTP 处理
- Spanish: HTTP Transacción

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor does not support Secure Remote Password (SRP) ciphers. If you need to use SRP ciphers, use the Alternate/Compatibility Mode in the sensor settings.

- This sensor supports smart URL replacement.
- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [Configuration Tips for HTTP Transaction Sensors needed](#)
- See the Knowledge Base: [Which user agent should I use in the HTTP Advanced sensor's settings?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a 'Basic Sensor Settings' dialog box. It has three main sections: 'Sensor Name' with a text input field containing 'Example Name'; 'Tags' with a text input field containing 'exampletag' and a plus sign icon; and 'Priority' with a star rating of three stars out of five.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ httptransactionsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

HTTP Specific

HTTP Specific

Timeout (Sec.) **i**

Single URL Timeout (Sec.) **i**

HTTP Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for all HTTP requests. Enter an integer value. The maximum value is 900 seconds (15 minutes).</p> <p>i If the complete transaction takes longer than this value, the sensor cancels the request and shows an according error message. If two consecutive requests are unsuccessful (for whatever reason), the sensor shows the Down status ¹⁹⁷.</p>
Single URL Timeout (Sec.)	<p>Enter a timeout in seconds for one single HTTP request. Enter an integer value. The maximum value is 900 seconds (15 minutes).</p> <p>i If the reply of any single request takes longer than this value, the sensor cancels the transaction and shows an according error message.</p>

HTTP Engine

HTTP Engine

Monitoring Engine **i**

Default engine (recommended)
 Compatibility engine

HTTP Engine

Setting	Description
Monitoring Engine	<p>Choose the monitoring engine that the sensor uses:</p> <ul style="list-style-type: none"> ▪ Default engine (recommended): Use the default monitoring engine. ▪ Compatibility engine: Execute an external executable program. Use this method as an alternative for websites that do not work with the default monitoring engine. <ul style="list-style-type: none"> ⓘ This method needs more resources but it can be helpful in some cases. ⓘ If you select the compatibility mode, the options for the SSL method are different. You can also check for trusted certificates. See below. ⓘ Smart URL Replacement does not work with the compatibility mode, so this sensor does not automatically use the IP Address/DNS value of the parent device.
SSL/TLS Method	<p>This option is only visible if you select Alternate/Compatibility Mode above. Choose from:</p> <ul style="list-style-type: none"> ▪ SSLv3 ▪ TLS 1.0, TLS 1.1, TLS 1.2 ▪ SSLv3, TLS 1.0, TLS 1.1, TLS 1.2 (default)
Check SSL Certificates	<p>This option is only visible if you select Alternate/Compatibility Mode above. Specify if the sensor checks the certificate of the URL:</p> <ul style="list-style-type: none"> ▪ Do not check certificates: Do not check the certificates of the web pages. This the default setting. ▪ Check if certificates are trusted: Check the certificates of the web pages. If the certificate of the server is not trusted, the sensor shows a Down status¹⁹⁷ and displays a corresponding message.

ⓘ This sensor implicitly supports SNI, an extension to the Transport Layer Security (TLS) protocol.

Advanced Sensor Data

Advanced Sensor Data

Download Limit (KB) ⓘ

Cookie Management ⓘ

Use cookies (recommended)

Ignore cookies

User Agent ⓘ

Use the default string

Use a custom string



Result Handling ⓘ

Discard result


Store result

Advanced Sensor Data

Setting	Description
Download Limit (KB)	<p>Enter a number that defines the maximum amount of data (in kilobytes) that the sensor transfers per request.</p> <p>i If you set content checks, be aware that they might be incomplete. This is because the sensor only checks the content that is downloaded up to this limit for search expressions.</p>
Cookie Management	<p>Select if you want to allow cookies for the transaction:</p> <ul style="list-style-type: none"> Use cookies (recommended): Allow cookies to be set and read during the transaction cycle. We recommend that you use this option. Ignore cookies: Do not allow cookies. Use this option if you want to test the transaction without the use of cookies.
User Agent	<p>Choose which user agent string the sensor sends when it connects to the target URL:</p> <ul style="list-style-type: none"> Use the default string: Do not enter a specific user agent and use the default string. Usually, this is Mozilla/5.0 (compatible; PRTG Network Monitor (www.paessler.com); Windows). Use a custom string: Use a custom user agent. Define the custom user agent below.
Custom User Agent	<p>This setting is only visible if you enable Use a custom string above. Enter the string that the sensor uses as the user agent when it connects to the target URL.</p>
Result Handling	<p>Define what PRTG does with the web page that is loaded at the URL:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result.


Setting	Description
	<ul style="list-style-type: none"> Store result: Store the last result of the web page in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID]-1.txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes, especially in combination with content checks. PRTG overwrites the files with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Authentication

Authentication Authentication 

Web page does not need authentication
 Web page needs authentication

Authentication

Setting	Description
Authentication	Define if authentication is necessary on the web page: <ul style="list-style-type: none"> Web page does not need authentication Web page needs authentication
User Name	This setting is only visible if you select Web page needs authentication above. Enter a user name. Enter a string.
Password	This setting is only visible if you select Web page needs authentication above. Enter a password. Enter a string.
Authentication Method	This setting is only visible if you select Web page needs authentication above. Select the authentication method that the URL uses: <ul style="list-style-type: none"> HTTP authentication: Use simple HTTP authentication.  This authentication method transmits credentials as plain text. NT LAN Manager authentication: Use the Microsoft NT LAN Manager (NTLM) protocol for authentication. Digest access authentication: Use digest access authentication. This applies a hash function to the password, which is safer than HTTP authentication.

Transaction URL

You can define up to 10 different transaction URLs, which are all called in a row. If the transaction can be completed, the sensor shows the Up status. Using this mechanism, you can set up extended monitoring with multiple URLs.

Enter settings for at least one transaction URL. You can use as many steps as necessary and disable the other steps.

Transaction URL #1

URL ⓘ

Request Method ⓘ GET
 POST
 HEAD

Require Keyword ⓘ Do not check for keyword (default)
 Set sensor to warning if keyword is missing
 Set sensor to down status if keyword is missing

Exclude Keyword ⓘ Do not check for keyword (default)
 Set sensor to warning if keyword is found
 Set sensor to down status if keyword is found

Transaction URL #2

Transaction Step #2 ⓘ Disable step #2
 Enable step #2

Transaction URL #x

Setting	Description
Transaction Step #x	<p>This setting is available for URL #2 through #10. Define if you want to use this step for the transaction check:</p> <ul style="list-style-type: none"> Disable step #x: Do not use this step. Choose this option if you do not need all 10 steps for the transaction check. Enable step #x: Enable this step. Further options are available.
URL	<p>Enter the URL that the sensor connects to. If you enter an absolute URL, the sensor uses this address independently of the IP Address/DNS Name setting of the parent device.</p> <p>i The URL must not be URL encoded.</p> <p>■ PRTG uses a smart URL replacement with which you can use the parent device's IP address or Domain Name System (DNS) name setting as part of the URL. For more information, see section Smart URL Replacement ¹³⁵³.</p>

Setting	Description
Request Method	<p>Select an HTTP request method to determine how the sensor requests the URL:</p> <ul style="list-style-type: none"> ▪ GET: Directly request the website. <ul style="list-style-type: none"> ⓘ We recommend that you use this setting for a simple check of the web page. ▪ POST: Send post form data to the URL. <ul style="list-style-type: none"> ⓘ If you select this setting, you must enter the data in the Postdata field below. ▪ HEAD: Only request the HTTP header from the server without the actual web page. <ul style="list-style-type: none"> ⓘ Although this saves bandwidth because it transfers less data, we do not recommend that you use this. This is because the measured request time is not the one that your users experience and you might not be notified of slow results or timeouts.
Postdata	<p>This setting is only visible if you select POST above. Enter the data part for the POST request.</p> <ul style="list-style-type: none"> ⓘ No Extensible Markup Language (XML) is allowed here.
Require Keyword	<p>Define if the sensor checks the result at the URL for keywords:</p> <ul style="list-style-type: none"> ▪ Do not check for keyword (default): Do not search for keywords in the result. ▪ Set sensor to warning if keyword is missing: Check if a keyword exists in the result. If it exists, set the sensor to the Warning status. ▪ Set sensor to error if keyword is missing: Check if a keyword exists in the result. If it exists, set the sensor to the Down status. <p>ⓘ The content check is only intended for HTML websites and might not work with other target URLs.</p>
Response Must Include	<p>This setting is only visible if you select keyword checking above. Define the search string that must be part of the result at the URL.</p> <ul style="list-style-type: none"> ⓘ If the result at the URL does not include the search pattern, the sensor shows the status defined above and displays this string along with the affected URL in the sensor message. ⓘ Only simple text search is available here. ⓘ The characters * and ? work as placeholders. * stands for no number or any number of characters and ? stands for exactly one character. You cannot change this behavior. The literal search for these characters is not possible.
Exclude Keyword	<p>Define if the sensor checks the result at the URL for keywords:</p>

Setting	Description
	<ul style="list-style-type: none"> Do not check for keyword (default): Do not search for keywords in the result. Set sensor to warning if keyword is found: Check if a keyword exists in the result. If it exists, set the sensor to the Warning status. Set sensor to error if keyword is found: Check if a keyword exists in the result. If it exists, set the sensor to the Down status. <p>i The content check is only intended for HTML websites and might not work with other target URLs.</p>
Response Must Not Include	<p>Define a string that must not be part of the result at the URL. If the data includes this string, the sensor shows the Down status and displays this string along with the affected URL in the sensor message. Enter a string.</p> <p>i Only simple text search is available here.</p> <p>i The characters * and ? work as placeholders. * stands for no number or any number of characters and ? stands for exactly one character. You cannot change this behavior. The literal search for these characters is not possible.</p>

Sensor Display

Sensor Display

Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)


Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none"> i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Proxy Settings for HTTP Sensors

Click  to interrupt the [inheritance](#)¹⁴².



The proxy settings determine how a sensor connects to a URL. You can enter data for an HTTP proxy server that sensors use when they connect via HTTP or HTTPS.

i This setting only applies to HTTP sensors and how they monitor. To change the proxy settings for the PRTG core server, see section [Core & Probes](#)⁴²⁰³.

Proxy Settings for HTTP Sensors

IP Address/DNS Name i	192.0.2.0
Port i	8080
User Name i	johnqpublic
Password i	.....

Proxy Settings for HTTP Sensors



Setting	Description
IP Address/DNS Name	Enter the IP address or Domain Name System (DNS) name of the proxy server. If you leave this field empty, HTTP sensors do not use a proxy.
Port	Enter the port number of the proxy. The default is 8080. Enter an integer value.
User Name	If the proxy requires authentication, enter the user name for the proxy login.  Only basic authentication is available. Enter a string or leave the field empty.
Password	If the proxy requires authentication, enter the password for the proxy login.  Only basic authentication is available. Enter a string or leave the field empty.

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from: <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Smart URL Replacement

Instead of entering a complete address in the URL field of an HTTP sensor, you can only enter the protocol followed by a colon and three forward slashes (this means that you can enter either <http://> or <https://>, or even a simple forward slash / as the equivalent for <http://>). PRTG automatically fills in the parent device's IP address or DNS name in front of the third forward slash.

Whether this results in a valid URL or not depends on the IP address or Domain Name System (DNS) name of the parent device. In combination with cloning devices, you can use smart URL replacement to create many similar devices.


For example, if you create a device with the DNS name www.mycompany.com and you add an HTTP sensor to it, you can provide values in the following ways:


- If you enter <https://> in the URL field, PRTG automatically creates the URL <https://www.mycompany.com/>
- If you enter [/help](http://www.mycompany.com/help) in the URL field, PRTG automatically creates and monitor the URL <http://www.mycompany.com/help>

- It is also possible to provide a port number in the URL field. It is taken over by the device's DNS name and is internally added, for example, <http://:8080/>

 Smart URL replacement does not work for sensors that run on the probe device.

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Sum	The loading time of the complete transaction in milliseconds (msec)  This channel is the primary channel by default.
Time of URL [#]	The loading time of single URLs in msec

More

KNOWLEDGE BASE

Configuration tips for HTTP Transaction sensors needed

- <https://kb.paessler.com/en/topic/443>

Which user agent should I use in the HTTP Advanced sensor's settings?

- <https://kb.paessler.com/en/topic/30593>

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My HTTP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/85284>

Sensor Settings Overview

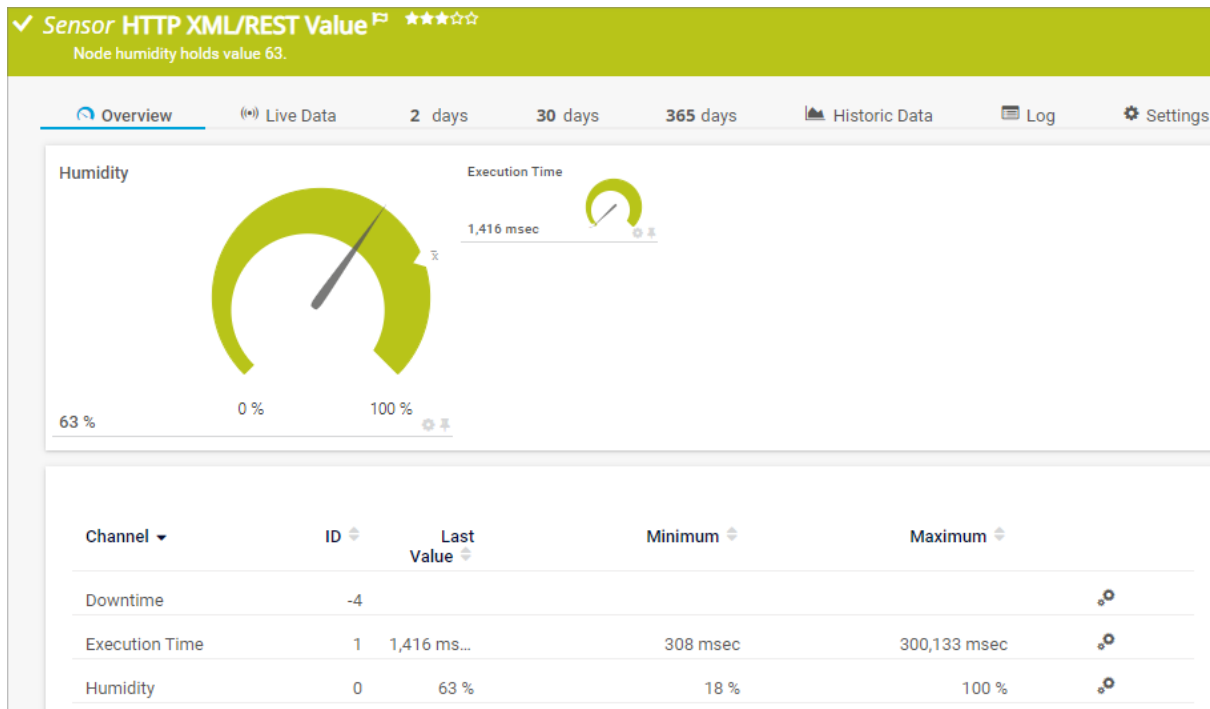
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3957

7.8.70 HTTP XML/REST Value Sensor

The HTTP XML/REST Value sensor retrieves an .xml file from a URL and parses it.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



HTTP XML/REST Value Sensor

Sensor in Other Languages



- Dutch: HTTP XML/REST Waarde
- French: Valeur HTTP XML/REST
- German: HTTP XML-/REST-Wert
- Japanese: HTTP XML/REST 値
- Portuguese: Valor HTTP XML/REST
- Russian: HTTP XML/REST
- Simplified Chinese: HTTP XML/REST 值
- Spanish: Valor HTTP XML/REST

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires .NET 4.7.2 or later on the probe system. If the sensor shows the error PE087, additionally install .NET 3.5 on the probe system.
- This sensor does not support Secure Remote Password (SRP) ciphers.

- This sensor supports smart URL replacement.
- This sensor supports the IPv6 protocol.
- This sensor can monitor only one single node in an .xml file and shows the value in one channel. If you need to monitor more than one node of an .xml document, add the sensor for each target node anew.
- We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
- See the Knowledge Base: [Where can I find more information about the HTTP XML/REST Value sensor?](#)
- See the Knowledge Base: [Which HTTP status code leads to which HTTP sensor status?](#)

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Sensor Settings

Setting	Description
Channel Name	Enter a name for the channel that displays the value at the URL.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag ✕ +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ ptfsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

Sensor Settings

Sensor Settings

URL ⓘ

XML Node (and optional property) ⓘ

HTTP User Name ⓘ

HTTP Password ⓘ

Sensor Value ⓘ Use the value of the selected XML node
 Use the number of occurrences of the selected XML node or its children/siblings

Name Space Handling ⓘ Use name spaces
 Remove name spaces

Content Type ⓘ Enable (recommended)
 Disable
 Custom

Remove Characters ⓘ

HTTP Headers ⓘ

Decimal Delimiter ⓘ




Custom Message ⓘ

If Channel Value Changes ⓘ Ignore changes
 Trigger 'change' notification

Unit String ⓘ

Sensor Settings

Setting	Description
URL	<p>Enter the URL that returns the .xml file. If you enter an absolute URL, the sensor uses this address independently of the IP Address/DNS Name setting of the parent device.</p> <p>ⓘ The URL must be URL encoded.</p> <p>■ PRTG uses a smart URL replacement with which you can use the parent device's IP address or Domain Name System (DNS) name setting as part of the URL. For more information, see section Smart URL Replacement ¹³⁶⁸.</p>
XML Node (and optional property)	<p>Enter the name of the node that this sensor checks, or enter a node name and a property name to check a property value. To obtain a value from nested tags, enter the tag names and separate them with a forward slash (/). For example, use myTag/myTagInside as XML node value.</p> <p>ⓘ You can also check values in JavaScript Object Notation (JSON). See section Checking JSON ¹³⁶⁷.</p>

Setting	Description
	<p> You can try to use XPath syntax here but it does not work in all cases and we do not provide any technical support for XPath issues. For further documentation about XPath, see the Knowledge Base: How can I use XPath with the HTTP XML/REST Value Sensor?</p>
HTTP User Name	If the URL requires authentication, enter the user name. Enter a string or leave the field empty.
HTTP Password	If the URL requires authentication, enter the password. Enter a string or leave the field empty.
Sensor Value	<p>Define what value the sensor shows:</p> <ul style="list-style-type: none"> ▪ Use the value of the selected XML node: Return the value that the sensor finds at the XML node. If this is a non-numeric value, the sensor shows 0. ▪ Use the number of occurrences of the selected XML node or its children/siblings: Return the number of occurrences found. Define further settings below.
Count XML Nodes	<p>This setting is only visible if you select Use the number of occurrences of the selected XML node or its children/siblings above. Define which count the sensor shows:</p> <ul style="list-style-type: none"> ▪ Occurrences of the selected XML node: Return how often the defined XML node occurs at the URL. ▪ Child nodes of the selected XML node: Return the number of child nodes that exist below the node at the URL. ▪ Sibling nodes of the selected XML node: Return the number of sibling nodes that exist next to the node at the URL.
Name Space Handling	<p>Define whether to use namespaces in the .xml document or not:</p> <ul style="list-style-type: none"> ▪ Use name spaces: Process the value you enter in the XML Node (and optional property) field, possibly including namespace information. ▪ Remove name spaces: Ignore namespace information in the .xml document and process the value you enter in the XML Node (and optional property) field as node names only. <p> For more information see section About Namespaces </p>
Content Type	<p>Define what to include in the header of the request that the sensor sends to the URL:</p> <ul style="list-style-type: none"> ▪ Enable (recommended): This works for most web servers and is the recommended setting.

Setting	Description
	<ul style="list-style-type: none"> ▪ Disable: Only very few web servers cannot handle this content type and need this setting. Try this if you get an error message with the enabled option. ▪ Custom: You can use a custom content type.
Custom Content Type	This setting is only visible if you select Custom above. Enter a custom content type like text/xml or text/html .
HTTP Headers	<p>Optionally enter a list of custom HTTP headers with their respective values that you want to transmit to the URL. The syntax of a list with header-value pairs is header1:value1|header2:value2|...|headerx:valuex</p> <p>i The sensor does not accept header field names that include a dash (–) character. If you want to use such an HTTP header, leave out the dash in the name. For example, enter ContentType:value instead of Content-Type:value. Example: From:johnqpublic@example.com|AcceptLanguage:en-us</p> <p>i Ensure that the HTTP header statement is valid. Otherwise, the sensor request cannot be successful.</p>
Remove Characters	<p>This setting is only visible if you select Use the value of the selected XML node above. Optionally enter a string that the sensor removes from the returned XML value.</p> <p>Use this to remove any unwanted characters from the result, for example to remove a thousands separator from numeric values. Enter a string or leave the field empty.</p>
Decimal Delimiter	This setting is only visible if you select Use the value of the selected XML node above. If the sensor value of the returned XML node is of the type float , you can define any character as the decimal delimiter. Enter one character or leave the field empty.
Custom Message	Optionally enter a custom sensor message. Use %1 as a placeholder to automatically fill in the returned XML value. Enter a string or leave the field empty.
If Channel Value Changes	<p>Define what the sensor does when the channel value changes:</p> <ul style="list-style-type: none"> ▪ Ignore changes (default): Take no action on change. ▪ Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁸, you can use this mechanism to trigger a notification³⁹⁸⁷ whenever the sensor value changes. <p>i The notification for this sensor can only be triggered if the returned value is a numeric value. This option does not support strings.</p>

Setting	Description
Unit String	<p>Enter the unit for the values that this sensor returns. Enter a string. PRTG uses the unit string for display purposes and shows it in graphs, data tables, and gauges.</p> <p>i If you want to change the unit after sensor creation, you can change it in the sensor's channel settings.</p>

Debug Options

Debug Options

Result Handling **i**

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display




Sensor Display

Primary Channel **i** Downtime


Graph Type **i**

Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

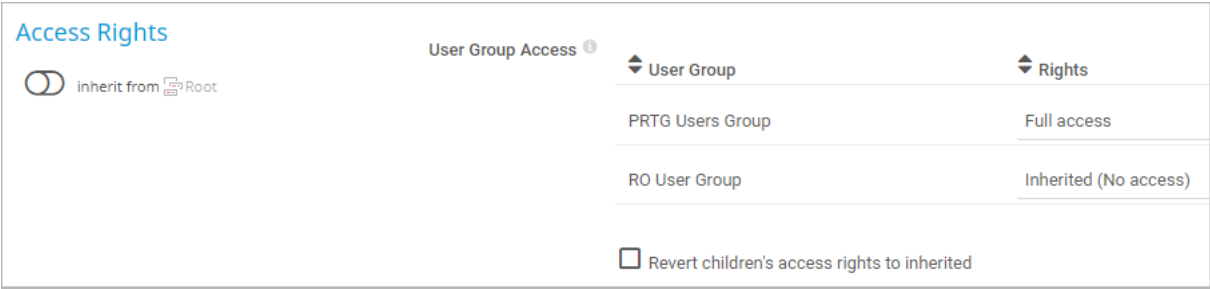
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights


Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Checking JSON

With the XML Node (and optional property) field, you can also check values that are returned in JSON notation under the defined URL.


 Example

A JSON notated section might look like the following:

```
{
  "test": "Hello World",
  "object": {
    "value": "content",
    "AnotherValue": "AnotherContent"
  },
  "arraytest": [
    "one",
    "two"
  ]
}
```

Depending on your entries in the XML Node field, the sensor processes the respective values:

Entry in Sensor's "XML Node" Field (from Example Above)	Processed Value (from Example Above)
test	Hello World
object/value	content
object/AnotherValue	AnotherContent
object	contentAnotherContent
arraytest[1]	one
arraytest[2]	two

 The sensor converts whitespaces in JSON keys into underscores (_). So, for example, if you look for the node **some node** in the JSON, you need to enter **some_node** into the node field. If you count the number of nodes (for example, **some_node**), both **some node** and **some_node** would be counted if they appear in the JSON.

 If a key exists more than once in the JSON, the value of the first appearance is returned (no difference between whitespace and underscore).

About Namespaces

In an .xml document, tags may use namespaces.

 Example

A namespace notated section might look like the following:

```
<myNamespace:myNode>
  some information
</myNamespace:myNode>
```

If you set this sensor to Use namespaces (this is the default setting), it expects the full node name, including the namespace information, in the XML Node (and optional property) field. In the example above, this is [myNamespace:myNode](#).

If your node names are unique even without the namespace information, you can simplify the settings by setting this sensor to Remove namespaces. The sensor then expects the node name only in the XML Node (and optional property) field. In the example above, this is [myNode](#).

Smart URL Replacement

Instead of entering a complete address in the URL field of an HTTP sensor, you can only enter the protocol followed by a colon and three forward slashes (this means that you can enter either [http://](#) or [https://](#), or even a simple forward slash [/](#) as the equivalent for [http://](#)). PRTG automatically fills in the parent device's IP address or DNS name in front of the third forward slash.


Whether this results in a valid URL or not depends on the IP address or Domain Name System (DNS) name of the parent device. In combination with cloning devices, you can use smart URL replacement to create many similar devices.


For example, if you create a device with the DNS name [www.mycompany.com](#) and you add an HTTP sensor to it, you can provide values in the following ways:

- If you enter [https://](#) in the URL field, PRTG automatically creates the URL [https://www.mycompany.com/](#)
- If you enter [/help](#) in the URL field, PRTG automatically creates and monitor the URL [http://www.mycompany.com/help](#)
- It is also possible to provide a port number in the URL field. It is taken over by the device's DNS name and is internally added, for example, [http://:8080/](#)

 Smart URL replacement does not work for sensors that run on the probe device.

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Execution Time	The execution time in milliseconds (msec)
[Value]	The value of one defined XML node
	 This channel is the primary channel by default.

More

KNOWLEDGE BASE

Where can I find more information about the HTTP XML/REST Value sensor?

- <https://kb.paessler.com/en/topic/62463>

Which HTTP status code leads to which HTTP sensor status?

- <https://kb.paessler.com/en/topic/65731>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How can I use XPath with the HTTP XML/REST Value sensor?

- <https://kb.paessler.com/en/topic/26393>

Is there a tool available that can help me build queries for the HTTP XML/REST Value sensor?

- <https://kb.paessler.com/en/topic/48783>

How do I extract values from XML nodes (with nested tags) using the HTTP XML/REST Value sensor?

- <https://kb.paessler.com/en/topic/43223>

Why does my HTTP XML/REST Value sensor return a 404 error?

- <https://kb.paessler.com/en/topic/46503>

My HTTP sensors don't work. What can I do?





- <https://kb.paessler.com/en/topic/85284>

For which sensor types do you recommend Windows Server 2012 R2 or later and why?

- <https://kb.paessler.com/en/topic/64331>

Sensor Settings Overview

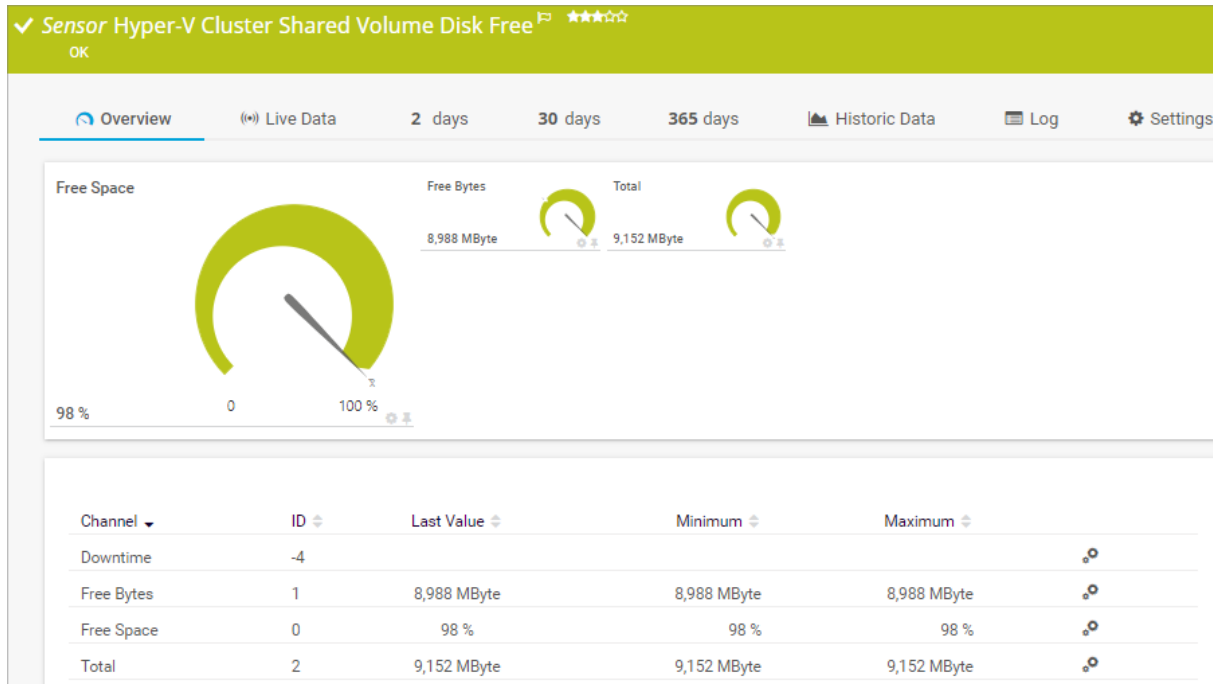
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.71 Hyper-V Cluster Shared Volume Disk Free Sensor

The Hyper-V Cluster Shared Volume Disk Free sensor monitors a Microsoft Hyper-V cluster shared volume via PowerShell.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Hyper-V Cluster Shared Volume Disk Free Sensor

Sensor in Other Languages

- Dutch: Hyper-V Cluster Shared Volume Disk Free
- French: Disque disponible Hyper-V Cluster Shared Volume
- German: Hyper-V Freigegebenes Clustervolume Freier Speicher
- Japanese: Hyper-V クラスタ共有ボリュームディスク空き容量
- Portuguese: Disco de volume compartilhado do cluster Hyper-V livre
- Russian: Hyper-V
- Simplified Chinese: Hyper-V 群集共享卷磁盘可用空间
- Spanish: Espacio en disco libre de volumen compartido en clúster de Hyper-V

Remarks

- The parent device of this sensor must be a Windows server that runs Hyper-V.
- This sensor [requires](#) Remote PowerShell on the target device.
- This sensor requires WSFC PowerShell Interface on the target device.
- This sensor requires .NET 4.7.2 or later on the probe system.

- This sensor requires [credentials for Windows systems](#) ⁴⁵² in the settings of the parent device.
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- See the Knowledge Base: [Why don't my Hyper-V sensors work after changing names?](#)
- See the Knowledge Base: [Where can I find more information about PowerShell sensors?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Remote PowerShell	<p>This sensor uses PowerShell commands. To monitor devices with this sensor, Remote PowerShell must be enabled.</p> <p>i In larger environments, the default memory limit for the remote shell might be insufficient. This might result in the error message The WSMAN provider host process did not return a proper response. In this case, increase the memory limit for Remote PowerShell.</p> <p>■ For more information, see the Knowledge Base: How do I enable and use remote commands in Windows PowerShell? and How can I increase memory for Remote PowerShell?</p>
WSFC PowerShell Interface	<p>This sensor requires the WSFC (Windows Server Failover Clustering) PowerShell Interface to be installed on the target machine. You can list all modules in the PowerShell console with the command Get-Module - ListAvailable. Here, FailoverClusters has to appear. Under Windows Server 2008 (not officially supported) and Windows Server 2012, the interface is part of the VMM Administrator Console, or the VMM 2012 Management Console.</p> <p>The interface is available everywhere the WSFC feature is installed: Windows Server 2008 R2 (SP1) Full and Core (not installed by default), Microsoft Hyper-V Server 2008 R2 (SP1), and Remote Server Administration Tools (RSAT) for Windows 10, Windows 8.1, Windows 8, and Windows 7 (SP1).</p>
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i If the framework is missing, you cannot create this sensor.</p> <p>■ For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Disk Free Settings

Setting	Description
Disk	<p>Select the disks that you want to monitor. PRTG creates one sensor for each disk that you select.</p> <ul style="list-style-type: none"> i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. i Make sure that the resource names of your disks do not contain unsupported characters, especially avoid the number sign (#). In general, the sensor supports UTF-8 characters. We recommend that you do not rename resource disk names once you have set up monitoring. For detailed information, see the Knowledge Base: Why don't my Hyper-V sensors work after changing names?

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It includes the following elements:

- Sensor Name:** A text input field containing 'Example Name' with an information icon.
- Tags:** A text input field containing 'exampletag' with a close button (X) and an add button (+), and an information icon.
- Priority:** A set of five star icons, with the first three filled, and an information icon.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ hyperv ▪ powershell ▪ diskfree
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Disk Free Settings

Disk Free Settings

Disks ⓘ C:\ClusterStorage\Volume1

Result Handling ⓘ Discard result
 Store result

Disk Free Settings

Setting	Description
Disk	Shows the name of the disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.


Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷),

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Bytes	The free space in bytes

Channel	Description
Free Space	The free space in percent  This channel is the primary channel by default.
Total	The total space in bytes

More

■ KNOWLEDGE BASE

Why don't my Hyper-V sensors work after changing names?

- <https://kb.paessler.com/en/topic/15533>

Where can I find more information about PowerShell sensors?

- <https://kb.paessler.com/en/topic/62451>

How do I enable and use remote commands in Windows PowerShell?

- <https://kb.paessler.com/en/topic/44453>

How can I increase memory for Remote PowerShell?

- <https://kb.paessler.com/en/topic/61922>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

My PowerShell sensor returns an error message. What can I do?

- <https://kb.paessler.com/en/topic/59473>

I get the error "WinRM cannot process the request" when I try to use a PowerShell sensor





- <https://kb.paessler.com/en/topic/59745>

I have problems with the PowerShell Exchange sensors, what can I do?

- <https://kb.paessler.com/en/topic/54353>

Sensor Settings Overview

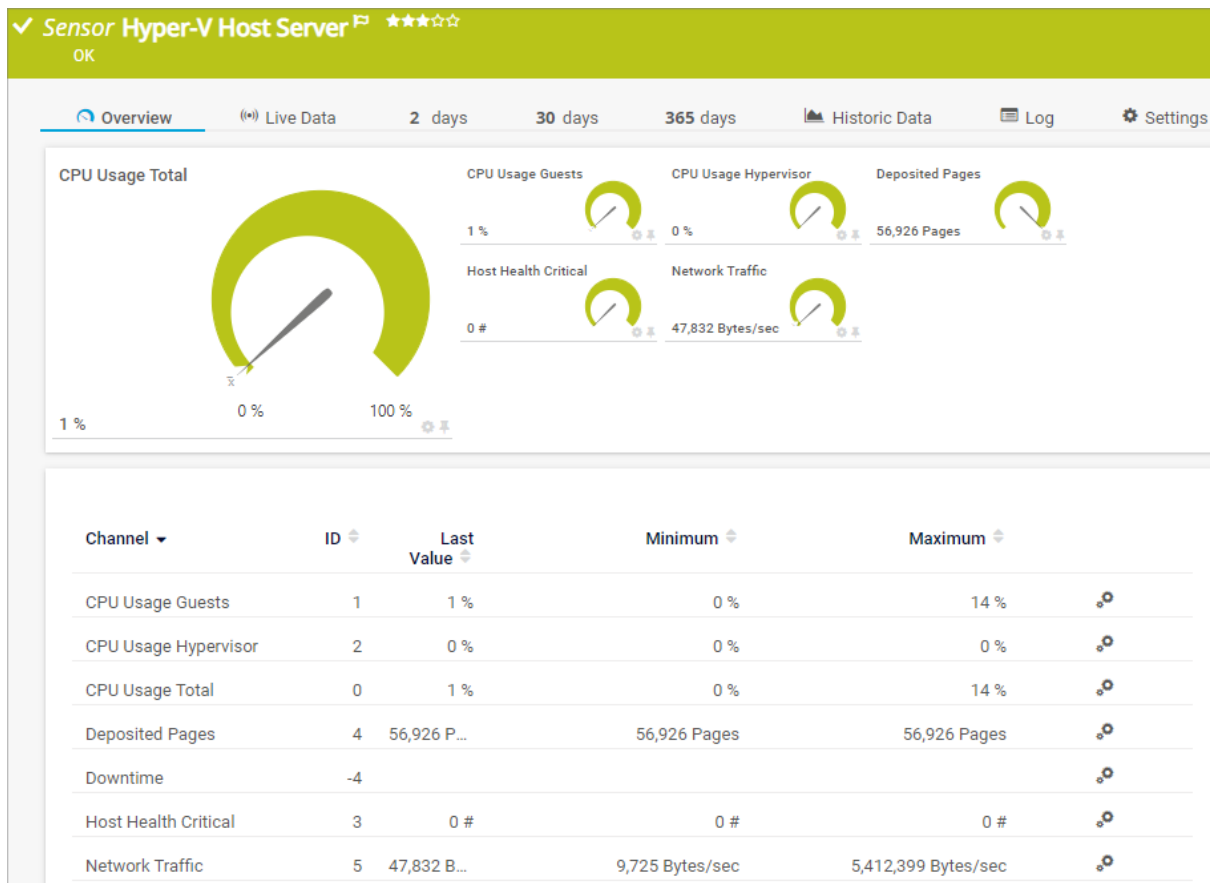
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3967

7.8.72 Hyper-V Host Server Sensor

The Hyper-V Host Server sensor monitors a Microsoft Hyper-V host server via Windows Management Instrumentation (WMI) or Windows performance counters, as configured in the [Windows Compatibility Options](#) ⁴⁶⁴ of the parent device.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ¹³⁸³.



Hyper-V Host Server Sensor

Sensor in Other Languages

- Dutch: Hyper-V Host Server
- French: Serveur hôte Hyper-V
- German: Hyper-V Host Server
- Japanese: Hyper-V ホストサーバー
- Portuguese: Hyper-V Host
- Russian: Hyper-V
- Simplified Chinese: Hyper-V 主机服务器
- Spanish: Servidor Hyper-V Host

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- The parent device of this sensor must be a Windows server that runs Hyper-V.
- This sensor requires [credentials for Windows systems](#) ^[452] in the settings of the parent device.
- This sensor requires Windows Server 2008 R2 or later on the probe system.
- This sensor requires that the Remote Registry Windows service runs on the target computer.
- This sensor can use a hybrid approach with Windows performance counters and WMI as fallback to query data.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Windows credentials	<p>This sensor requires credentials for Windows systems ^[452] in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p>i If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, a connection via performance counters is not possible. However, WMI connections might still work.</p>
Windows version	<p>For this sensor to work with Windows performance counters, make sure that a Windows version 2008 or later is installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i WoW64 (Windows 32-bit on Windows 64-bit) must be installed on target systems that run Windows Server 2016. This allows 32-bit applications to be run on 64-bit systems. This is necessary because the PRTG probe service only runs with 32-bit support. Without it, WMI sensors do not work.</p>
Remote Registry service	<p>For this sensor to work with Windows performance counters, make sure that the Remote Registry Windows service runs on the target computer. If this service does not run, a connection via performance counters is not possible. However, WMI connections might still work.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Hybrid Approach: Performance Counters and WMI

i By default, this sensor uses WMI to request monitoring data. You can change the default behavior to a [hybrid approach](#) in the Windows Compatibility Options of the parent [device's settings](#) [464] on which you create this sensor: if you choose this option, the sensor first tries to query data via [Windows performance counters](#) and uses WMI as a fallback if performance counters are not available. When running in fallback mode, the sensor tries to connect via performance counters again after 24 hours.

i Sensors that use the WMI protocol have a high impact on the system performance. Try to stay below 200 WMI sensors per [probe](#) [130]. Above this number, consider using multiple [remote probes](#) [493] for load balancing.

i For a general introduction to the technology behind WMI, see section [Monitoring via WMI](#) [426].

Add Sensor

The [Add Sensor](#) [361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name**: A text input field containing "Example Name".
- Tags**: A list of tags with "exampletag" selected, and a plus sign icon to add more.
- Priority**: A star rating system showing 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree [183], as well as in alarms [228], logs [237], notifications [4031], reports [4069], maps [4095], libraries [4047], and tickets [240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags [145] that the sensor inherits [145] from its parent device [140], parent group [139], and parent probe [139].</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ¹⁴⁵.</p> <ul style="list-style-type: none"> ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ hypervserversensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Debug Options

Debug Options

Result Handling ⓘ

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <ul style="list-style-type: none"> ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click ⓘ to interrupt the [inheritance](#).

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU Usage Guests	The CPU usage of the guests in percent
CPU Usage Hypervisor	The CPU usage of the hypervisor in percent
CPU Usage Total	<p>The total CPU usage in percent</p> <p>i This channel is the primary channel by default.</p>
Deposited Pages	The number of deposited pages
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Host Health Critical	The number of host health-critical values
Network Traffic	The sum of the total bytes per second (received and sent) on all ports of the virtual switch

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

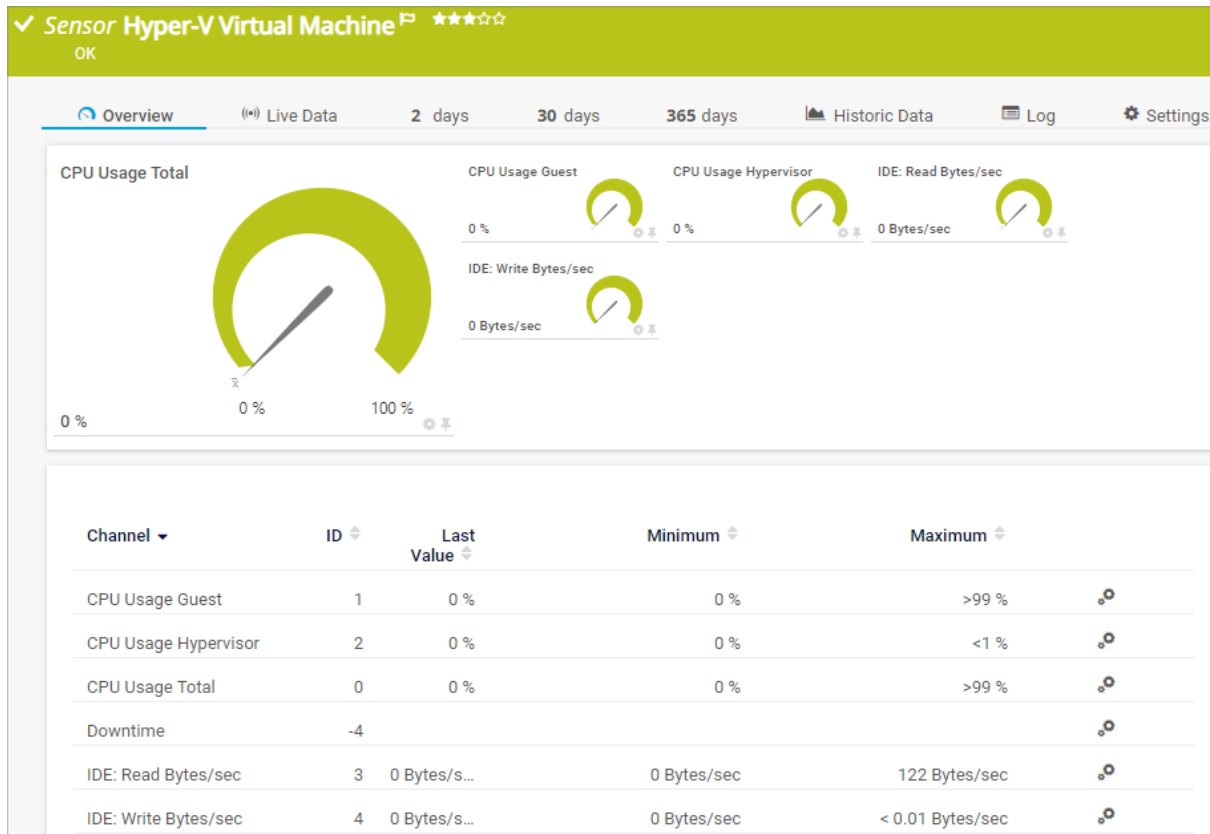
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.73 Hyper-V Virtual Machine Sensor

The Hyper-V Virtual Machine sensor monitors a virtual machine (VM) that runs on a Microsoft Hyper-V host server via Windows Management Instrumentation (WMI) or Windows performance counters, as configured in the [Windows Compatibility Options](#) ^[464] of the parent device.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ^[1405].



Hyper-V Virtual Machine Sensor

Sensor in Other Languages

- Dutch: Virtuele Hyper-V-Machine
- French: Machine virtuelle Hyper-V
- German: Hyper-V Virtuelle Maschine
- Japanese: Hyper-V 仮想マシン
- Portuguese: Máquina virtual Hyper-V
- Russian: Hyper-V
- Simplified Chinese: Hyper-V 虚拟机
- Spanish: Máquina virtual Hyper-V

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- The parent device of this sensor must be a Windows server that runs Hyper-V.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- This sensor requires Windows Server 2008 R2 or later on the probe system.
- This sensor requires that the Remote Registry Windows service runs on the target computer.
- This sensor can use a hybrid approach with Windows performance counters and WMI as fallback to query data.
- This sensor does not support [Live Migration](#).
- This sensor supports the IPv6 protocol.
- To monitor a VM with this sensor, disable User Account Control (UAC) in the control panel of the Windows operating system that runs on this VM. Otherwise, the sensor might change to the Down status showing the error message [The virtual machine is not running or is powered off](#).
- See the Knowledge Base: [Why don't my Hyper-V sensors work after changing names?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Windows credentials	<p>This sensor requires credentials for Windows systems^[452] in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p>i If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, a connection via performance counters is not possible. However, WMI connections might still work.</p>
Windows version	<p>For this sensor to work with Windows performance counters, make sure that a Windows version 2008 or later is installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i WoW64 (Windows 32-bit on Windows 64-bit) must be installed on target systems that run Windows Server 2016. This allows 32-bit applications to be run on 64-bit systems. This is necessary because the PRTG probe service only runs with 32-bit support. Without it, WMI sensors do not work.</p>
Remote Registry service	<p>For this sensor to work with Windows performance counters, make sure that the Remote Registry Windows service runs on the target computer. If this service does not run, a connection via performance counters is not possible. However, WMI connections might still work.</p>

Requirement	Description
	To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.

Hybrid Approach: Performance Counters and WMI

- i** By default, this sensor uses WMI to request monitoring data. You can change the default behavior to a [hybrid approach](#) in the Windows Compatibility Options of the parent [device's settings](#)^[464] on which you create this sensor: if you choose this option, the sensor first tries to query data via [Windows performance counters](#) and uses WMI as a fallback if performance counters are not available. When running in fallback mode, the sensor tries to connect via performance counters again after 24 hours.
- i** Sensors that use the WMI protocol have a high impact on the system performance. Try to stay below 200 WMI sensors per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[4503] for load balancing.
- i** For a general introduction to the technology behind WMI, see section [Monitoring via WMI](#)^[4258].

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Virtual Machine Settings

Setting	Description
Virtual Machines	<p>Select the VMs that you want to monitor, including the ones that do not run. PRTG creates one sensor for each VM that you select.</p> <ul style="list-style-type: none"> i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. i Make sure that the names of your VMs do not contain unsupported characters, especially avoid the number sign (#). We recommend that you not rename VMs once you have set up monitoring. For detailed information, see the Knowledge Base: Why don't my Hyper-V sensors work after changing names?

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmihypersensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Virtual Machine Settings

Virtual Machine Settings

GUID ⓘ

Name ⓘ

Description ⓘ

Powered Off VMs ⓘ Alarm when powered off
 Ignore power state

Result Handling ⓘ Discard result
 Store result

Virtual Machine Settings

Setting	Description
GUID	Shows the globally unique identifier (GUID) of the VM that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Name	Shows the name of the VM that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Description	Shows the description of the VM that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Powered Off VMs	Define how the sensor reacts to VMs that are powered off: <ul style="list-style-type: none"> ▪ Alarm when powered off: Change to the Down status^[197] if the VM is powered off. i If the sensor is in the Down status, it does not record any data in any of its channels. ▪ Ignore powered off state: Do not change to the Down status if the VM is powered off. It reports zero values instead.
Result Handling	Define what PRTG does with the sensor result:

Setting	Description
	<ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel **ⓘ** Downtime

Graph Type **ⓘ** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration^[4187] on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU Usage Guest	The CPU usage of the guests in percent
CPU Usage Hypervisor	The CPU usage of the hypervisor in percent
CPU Usage Total	The total CPU usage in percent
	This channel is the primary channel by default.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
IDE: Read Bytes/Sec	The disk read speed of the integrated development environment (IDE) in bytes per second
IDE: Write Bytes/Sec	The disk write speed of the IDE in bytes per second

More

KNOWLEDGE BASE

Why don't my Hyper-V sensors work after changing names?





- <https://kb.paessler.com/en/topic/15533>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

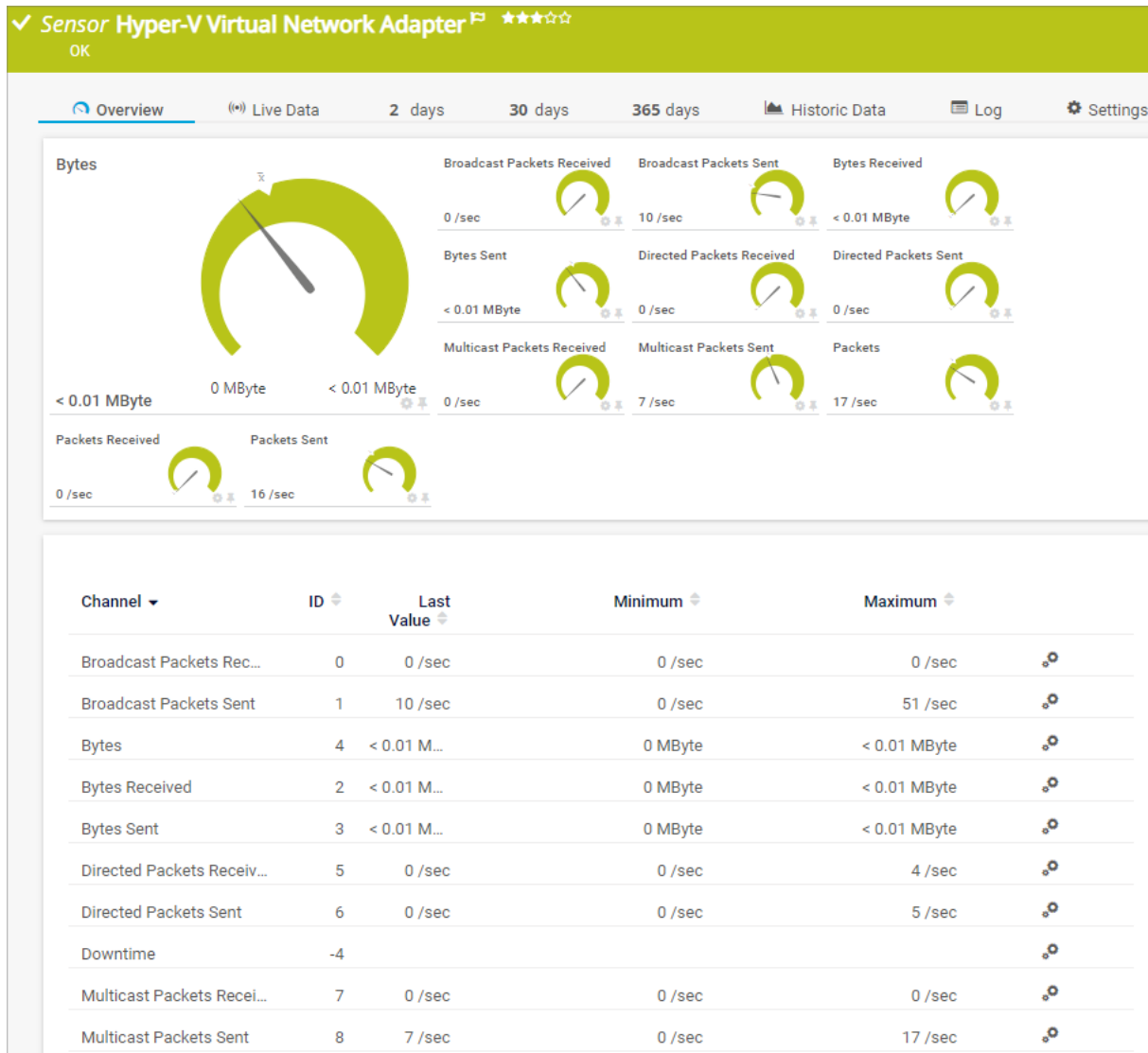
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3957

7.8.74 Hyper-V Virtual Network Adapter Sensor

The Hyper-V Virtual Network Adapter sensor monitors virtual network adapters that run on a Microsoft Hyper-V host server via Windows Management Instrumentation (WMI) or Windows performance counters, as configured in the [Windows Compatibility Options](#)^[464] of the parent device.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)^[1418].



Hyper-V Virtual Network Adapter Sensor

Sensor in Other Languages

- Dutch: Hyper-V Virtuele Network Adapter
- French: Carte réseau virtuel Hyper-V
- German: Hyper-V Virtueller Netzwerkadapter
- Japanese: Hyper-V 仮想ネットワークアダプター
- Portuguese: Hyper-V Adaptador de rede virtual

- Russian: Hyper-V
- Simplified Chinese: Hyper-V 虚拟网络适配器
- Spanish: Adaptador de red virtual Hyper-V

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- The parent device of this sensor must be a Windows server that runs Hyper-V.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- This sensor requires Windows Server 2008 R2 or later on the probe system.
- This sensor requires that the Remote Registry Windows service runs on the target computer.
- This sensor can use a hybrid approach with Windows performance counters and WMI as fallback to query data.
- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [Why don't my Hyper-V sensors work after changing names?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Windows credentials	<p>This sensor requires credentials for Windows systems^[452] in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p>i If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, a connection via performance counters is not possible. However, WMI connections might still work.</p>
Windows version	<p>For this sensor to work with Windows performance counters, make sure that a Windows version 2008 or later is installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i WoW64 (Windows 32-bit on Windows 64-bit) must be installed on target systems that run Windows Server 2016. This allows 32-bit applications to be run on 64-bit systems. This is necessary because the PRTG probe service only runs with 32-bit support. Without it, WMI sensors do not work.</p>
Remote Registry service	<p>For this sensor to work with Windows performance counters, make sure that the Remote Registry Windows service runs on the target computer. If this service does not run, a connection via performance counters is not possible. However, WMI connections might still work.</p>

Requirement	Description
	To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.

Hybrid Approach: Performance Counters and WMI

- i** By default, this sensor uses WMI to request monitoring data. You can change the default behavior to a [hybrid approach](#) in the Windows Compatibility Options of the parent [device's settings](#)⁴⁶⁴ on which you create this sensor: if you choose this option, the sensor first tries to query data via [Windows performance counters](#) and uses WMI as a fallback if performance counters are not available. When running in fallback mode, the sensor tries to connect via performance counters again after 24 hours.
- i** Sensors that use the WMI protocol have a high impact on the system performance. Try to stay below 200 WMI sensors per [probe](#)¹³⁰. Above this number, consider using multiple [remote probes](#)⁴⁵⁰³ for load balancing.
- i** For a general introduction to the technology behind WMI, see section [Monitoring via WMI](#)⁴²⁸.

Add Sensor

The [Add Sensor](#)³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Virtual Machine Settings

Setting	Description
Virtual Network Adapters	<p>Select the virtual network adapters that you want to monitor. PRTG creates one sensor for each virtual network adapter that you select.</p> <ul style="list-style-type: none"> i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. i We recommend that you do not rename virtual machines (VM) once you have set up monitoring. Renaming VMs also changes the internal virtual network adapter names, so monitoring might be interrupted. For detailed information about VM naming, see the Knowledge Base: Why don't my Hyper-V sensors work after changing names?

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmihypervirtualnetworkadapter
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

Hyper-V Virtual Network Adapter Settings

Hyper-V Virtual Network Adapter Settings

Virtual Network Adapter ⓘ *Fujitsu DynamicLoM Emulex*

Result Handling ⓘ

Discard result

Store result

Hyper-V Virtual Network Adapter Settings

Setting	Description
Virtual Network Adapter	Shows the name of the virtual network adapter that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ

Show channels independently (default)


Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.

Setting	Description
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> i You can change the available intervals in the system administration on PRTG on premises installations. </p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p> i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply. </p> <p> i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply. </p> <p> i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply. </p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Broadcast Packets Received	The number of broadcast packets received per second
Broadcast Packets Sent	The number of broadcast packets sent per second

Channel	Description
Bytes	The number of bytes transferred in total i This channel is the primary channel by default.
Bytes Received	The number of received bytes
Bytes Sent	The number of sent bytes
Directed Packets Received	The number of directed packets received per second
Directed Packets Sent	The number of directed packets sent per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Multicast Packets Received	The number of multicast packets received per second
Multicast Packets Sent	The number of multicast packets sent per second
Packets	The number of packets transferred in total per second
Packets Received	The number of packets received per second
Packets Sent	The number of packets sent per second

More

■ KNOWLEDGE BASE

Why don't my Hyper-V sensors work after changing names?

- <https://kb.paessler.com/en/topic/15533>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#) ⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#) ³⁹⁷²

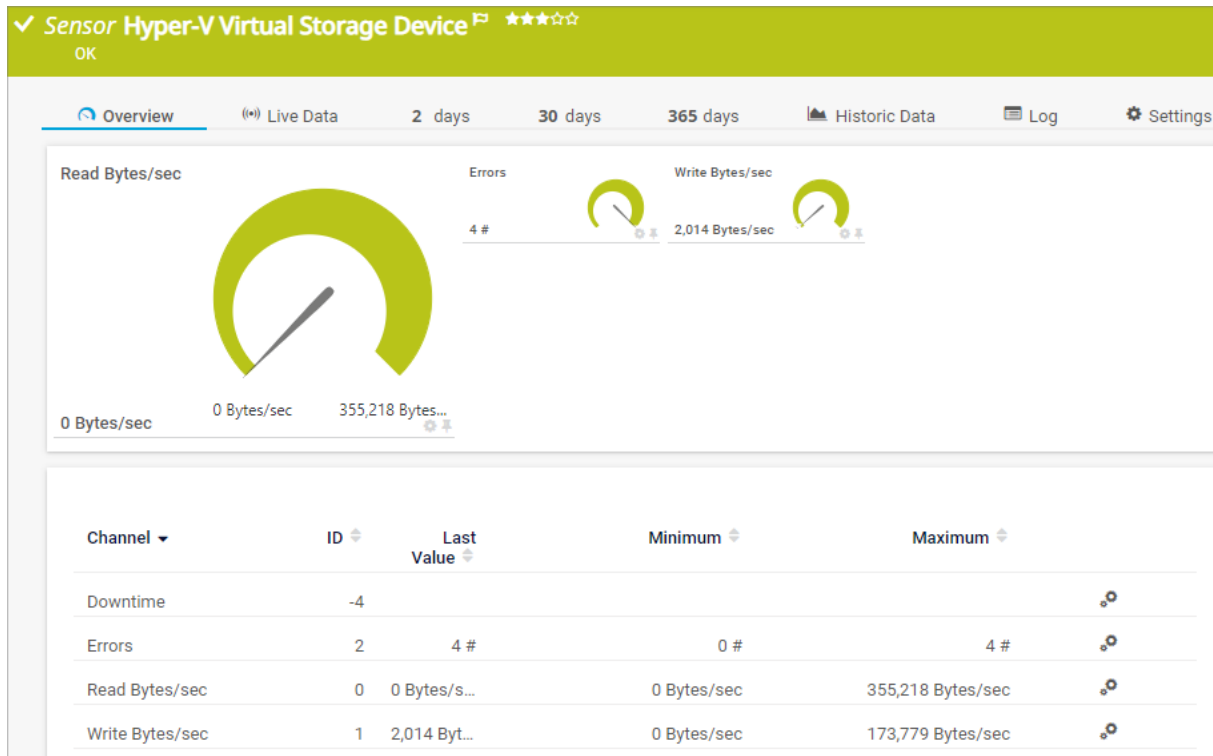
Part 7: Device and Sensor Setup | 8 Sensor Settings
74 Hyper-V Virtual Network Adapter Sensor

- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.75 Hyper-V Virtual Storage Device Sensor

The Hyper-V Virtual Storage Device sensor monitors a virtual storage device that runs on a Microsoft Hyper-V host server via Windows Management Instrumentation (WMI) or Windows performance counters, as configured in the [Windows Compatibility Options](#)^[464] of the parent device.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)^[1428].



Hyper-V Virtual Storage Device Sensor

Sensor in Other Languages

- Dutch: Hyper-V Virtueel Opslag Apparaat
- French: Equipement de stockage virtuel Hyper-V
- German: Hyper-V Virtuelles Speichergerät
- Japanese: Hyper-V 仮想ストレージデバイス
- Portuguese: Dispositivo de armazenamento virtual Hyper-V
- Russian: Hyper-V
- Simplified Chinese: Hyper-V 虚拟存储设备
- Spanish: Dispositivo de almacenamiento virtual Hyper-V

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- The parent device of this sensor must be a Windows server that runs Hyper-V.

- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- This sensor requires Windows Server 2008 R2 or later on the probe system.
- This sensor requires that the Remote Registry Windows service runs on the target computer.
- This sensor can use a hybrid approach with Windows performance counters and WMI as fallback to query data.
- This sensor does not support [Live Migration](#).
- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [Why don't my Hyper-V sensors work after changing names?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Windows credentials	<p>This sensor requires credentials for Windows systems^[452] in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p>i If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, a connection via performance counters is not possible. However, WMI connections might still work.</p>
Windows version	<p>For this sensor to work with Windows performance counters, make sure that a Windows version 2008 or later is installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i WoW64 (Windows 32-bit on Windows 64-bit) must be installed on target systems that run Windows Server 2016. This allows 32-bit applications to be run on 64-bit systems. This is necessary because the PRTG probe service only runs with 32-bit support. Without it, WMI sensors do not work.</p>
Remote Registry service	<p>For this sensor to work with Windows performance counters, make sure that the Remote Registry Windows service runs on the target computer. If this service does not run, a connection via performance counters is not possible. However, WMI connections might still work.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Hybrid Approach: Performance Counters and WMI

i By default, this sensor uses WMI to request monitoring data. You can change the default behavior to a [hybrid approach](#) in the Windows Compatibility Options of the parent [device's settings](#)^[464] on which you create this sensor: if you choose this option, the sensor first tries to query data via [Windows performance counters](#) and uses WMI as a fallback if performance counters are not available. When running in fallback mode, the sensor tries to connect via performance counters again after 24 hours.

i Sensors that use the WMI protocol have a high impact on the system performance. Try to stay below 200 WMI sensors per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[493] for load balancing.

i For a general introduction to the technology behind WMI, see section [Monitoring via WMI](#)^[426].

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Hyper-V Virtual Storage Device Settings

Setting	Description
Virtual Storage Devices	<p>Select the virtual storage devices that you want to monitor. PRTG creates one sensor for each virtual storage device that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag x +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmihypervirtualstoragesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Hyper-V Virtual Storage Device Settings

Hyper-V Virtual Storage Device Settings

Virtual Storage Device C:\ProgramData\Microsoft\Windows\Hyper-V\Ubuntu

Host Operating System Windows Server 2012 and later

Result Handling

Discard result

Store result

Hyper-V Virtual Storage Device Settings

Setting	Description
Virtual Storage Device	Shows the unique identifier of the virtual storage device that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Host Operating System	Shows the host operating system of the virtual storage device that this sensor monitors.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

Sensor Display


Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
Errors	The number of errors
Read Bytes/Sec	The read speed in bytes per second  This channel is the primary channel by default.
Write Bytes/Sec	The write speed in bytes per second

More

KNOWLEDGE BASE

Why don't my Hyper-V sensors work after changing names?





- <https://kb.paessler.com/en/topic/15533>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

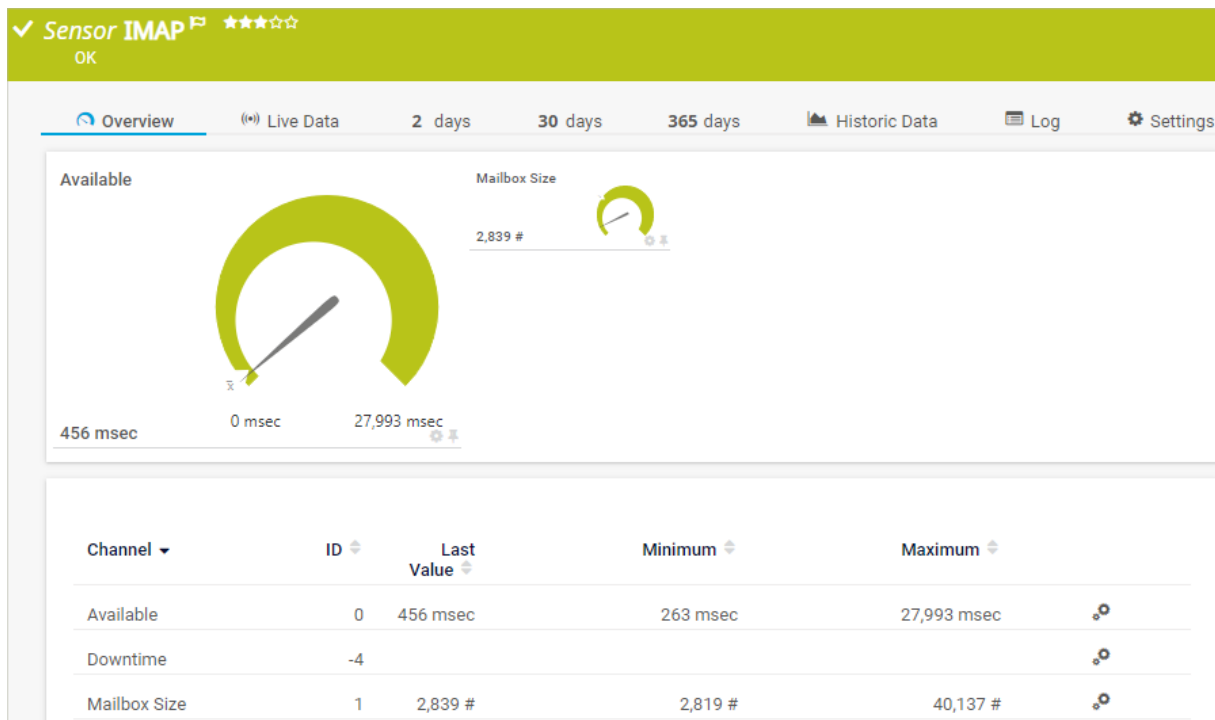
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.76 IMAP Sensor

The IMAP sensor monitors an email server via the Internet Message Access Protocol (IMAP).

The sensor can check the content of emails for certain keywords. This way, you can use the sensor to monitor backup solutions via emails that are sent by these solutions. For more information, see the Knowledge Base: [How can I monitor my backup software to be sure backup succeeded last night?](#)

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



IMAP Sensor

Sensor in Other Languages

- Dutch: IMAP
- French: IMAP
- German: IMAP
- Japanese: IMAP
- Portuguese: IMAP
- Russian: IMAP
- Simplified Chinese: IMAP
- Spanish: IMAP

Remarks

- This sensor does not support Secure Remote Password (SRP) ciphers.

- If you use content checks, we recommend that you use a dedicated IMAP account that is only checked by PRTG. Editing mails in the mailbox of the monitored IMAP account can lead to false alarms or malfunctions of this sensor.
- This sensor might not work properly when monitoring subfolders of mailboxes. If it has to check subsequent emails with identical subjects, emails coming in later might not be recognized.
- Emails that arrive during the Daylight Saving Time (winter time to summer time) change might not be processed properly. If you experience this issue, delete the respective emails.
- This sensor has a medium performance impact.
- See the Knowledge Base: [My IMAP sensor does not process HTML emails correctly using regex. What can I do?](#)
- See the Knowledge Base: [How can I monitor my backup software to be sure backup succeeded last night?](#)
- See the Knowledge Base: [Can I analyze multipart emails using the IMAP sensor?](#)
- See the Knowledge Base: [My IMAP sensor does not find emails when I check for message date. What can I do?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name**: A text input field containing "Example Name".
- Tags**: A list of tags with "exampletag" selected, accompanied by a plus sign to add more.
- Priority**: A star rating system showing three stars selected out of five.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited . ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ imapsensor ▪ mailsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Connectivity

Connectivity

Timeout (Sec.) ⓘ 60

Port ⓘ 143

Transport-Level Security ⓘ

- Use transport-level security if available using StartTLS (default)
- Use transport-level security if available
- Enforce transport-level security using StartTLS
- Enforce transport-level security

Connectivity

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
Port	<p>Specify the port that the sensor uses for the IMAP connection. The default port for unsecure connections is 143 and the default port for secure connections is 993. The actual setting depends on the server you connect to. Enter an integer value.</p> <p>i We recommend that you use the default value.</p> <p>i If the connection is unsuccessful, try a different port number.</p>
Transport-Level Security	<p>Define how the sensor handles the security of the connection:</p> <ul style="list-style-type: none"> ▪ Use transport-level security if available using StartTLS (default): Try to connect to the server via a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection and StartTLS. If the server does not support this, the sensor tries to connect without connection security. ▪ Use transport-level security if available: Try to connect to the server via an SSL/TLS-secured connection. If the server does not support this, the sensor tries to connect without connection security. ▪ Enforce transport-level security using StartTLS: Try to connect to the server via an SSL/TLS-secured connection and StartTLS. If the server does not support this, the sensor shows the Down status¹⁹⁷. ▪ Enforce transport-level security: Try to connect to the server via an SSL/TLS-secured connection. If the server does not support this, the sensor shows the Down status. <p>i If the sensor connects to a server via StartTLS, the connection is first established without connection security. After the connection has been established, the sensor sends a certain command (StartTLS) over the unsecured connection to negotiate a secure connection via SSL/TLS.</p> <p>i If the sensor does not use StartTLS, the negotiation of a secure connection happens immediately (implicitly) so that no commands are sent in unencrypted plain text. If no secure connection is possible, no communication takes place.</p>

Sensor Behavior

Sensor Behavior

Email Processing ⓘ

Do not process emails (default)

Count emails in the mailbox

Process emails in the mailbox

Result Handling ⓘ

Discard result

Store result

Sensor Behavior

Setting	Description
Email Processing	<p>Define if the sensor additionally checks the content of all incoming emails:</p> <ul style="list-style-type: none"> ▪ Do not process emails (default): Only check the availability of the IMAP server and check if a login is successful. Do not process any emails in the IMAP email account. ▪ Count emails in the mailbox: Count the emails in the mailbox. ▪ Process emails in the mailbox: Log in to the IMAP email account and check the emails that it contains. Define further options below.
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Authentication

Authentication

User Name ⓘ johnqpublic

Password ⓘ

Folder Name ⓘ Inbox

Authentication

Setting	Description
User Name	Enter a user name for IMAP authentication. Enter a string.
Password	Enter a password for IMAP authentication. Enter a string. ⓘ The password must not contain spaces, percent signs (%), or the character combination !*.
Folder Name	Enter the name of a folder in the mailbox (for example, the IMAP folder) that the sensor checks. The default value is Inbox. Unless you set a last message date check below, the sensor always looks at all emails contained in the mailbox. ⓘ Make sure that you do not manually edit emails in this mailbox with a different email client because this can result in malfunctions of this sensor's email identification.

Filter Emails in Inbox

ⓘ This settings section is only visible if you select Process emails in the mailbox.

Filter Emails in Inbox

Only Include Emails with Matching "From" ⓘ

Do not check (default)
 Check using simple string search
 Check using regular expression

Only Include Emails with Matching "Subject" ⓘ

Do not check (default)
 Check using simple string search
 Check using regular expression

Only Include Emails with Matching Email Body ⓘ

Do not check (default)
 Check using simple string search
 Check using regular expression

Only Include Recent Emails ⓘ

Do not check message age (default)
 Emails must be younger than

If No Email Matches the Above Filters ⓘ

Set sensor to up status (default)
 Set sensor to warning status
 Set sensor to down status

Filter Emails in Inbox

Setting	Description
Only Include Emails with Matching "From"	<p>Define if you want to check the "From" field of the emails:</p> <ul style="list-style-type: none"> Do not check (default): Do not process this field in emails. Check using simple string search: Process this field in emails using a simple string in plain text. Check using regular expression: Process this field in emails using a regular expression (regex). <p> ⓘ In the search, the sensor scans all emails from the newest to the oldest.</p> <p> ⓘ PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p> <p> ⓘ The sensor finishes the scan with the first match. This means that after it finds a match in one email, the sensor does not perform any further checks in older emails.</p>
Search for	<p>This setting is only visible if you select Check using simple string search or Check using regular expression above. Enter the email address or the regular expression⁴⁴⁹⁷ that the "From" field of the email must contain or match.</p>
Only Include Emails with Matching "Subject"	<p>Define if you want to check the "Subject" field of the emails:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ Do not check (default): Do not process this field in emails. ▪ Check using simple string search: Process this field in emails using a simple string in plain text. ▪ Check using regular expression: Process this field in emails using a regular expression (regex). <p>i In the search, the sensor scans all emails from the newest to the oldest.</p> <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p> <p>i The sensor finishes the scan with the first match. This means that after it finds a match in one email, the sensor does not perform any further checks in older emails.</p>
Search for	<p>This setting is only visible if you select Check using simple string search or Check using regular expression above. Enter the simple string in plain text or the regex that the "Subject" field of the email must contain or match.</p>
Only Include Emails with Matching Email Body	<p>Define if you want to check the body of the emails:</p> <ul style="list-style-type: none"> ▪ Do not check (default): Do not process the email body. ▪ Check using simple string search: Process the email body using a simple string in plain text. ▪ Check using regular expression: Process the email body using a regex. <p>i In the search, the sensor scans all emails from the newest to the oldest.</p> <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p> <p>i The sensor finishes the scan with the first match. This means that after it finds a match in one email, the sensor does not perform any further checks in older emails.</p>
Search for	<p>This setting is only visible if you select Check using simple string search or Check using regular expression above. Enter the simple string in plain text or the regex that the body of the email must contain or match.</p>
Only Include Recent Emails	<p>Define if you want to check all emails in the mailbox or only mails that were received during the last few hours:</p> <ul style="list-style-type: none"> ▪ Do not check message age (default): Check all emails that the mailbox contains. ▪ Emails must be younger than: Only check emails that were received during the last few hours. Define below.

Setting	Description
Maximum Age (Hours)	This setting is only visible if you select Emails must be younger than above. Enter the maximum age in hours. The sensor only processes emails that are younger. Enter an integer value.
If No Email Matches the Above Filters	<p>Define which status ¹⁹⁷ the sensor shows if it does not find any email in the mailbox that matches the above filters:</p> <ul style="list-style-type: none"> ▪ Set sensor to up status (default): Show the Up status if the sensor does not find any email in the mailbox that matches the filters. ▪ Set sensor to warning status: Show the Warning status if the sensor does not find any email in the mailbox that matches the filters. ▪ Set sensor to down status: Show the Down status if the sensor does not find any email in the mailbox that matches the filters.
Message	This setting is only visible if you select Set sensor to warning status or Set sensor to down status above. Define the message that the sensor shows if it does not find any matching emails.

Validate Latest Email

i This settings section is only visible if you select Process emails in the mailbox.

i The sensor only validates the latest email that matches the above filters. If the sensor does not find a matching email, it does not perform any email validation.

Validate Latest Email

The sensor only validates the latest email that matches the above filters. If the sensor does not find a matching email, it does not perform any email validation.

Set Sensor to "Warning" Status ¹⁹⁷

Never (default)
 Always
 If subject contains
 If subject does not contain
 If email body contains
 If email body does not contain

Based on Message Age, Set Sensor to "Warning" Status ¹⁹⁷

Never (default)
 If email is older than

Make sure that the sensor has dedicated access to the mailbox. External logins can distort message age recognition.

Set Sensor to "Down" Status ¹⁹⁷

Never (default)
 Always
 If subject contains
 If subject does not contain
 If mail body contains
 If mail body does not contain

Validate Latest Email

Setting	Description
Set Sensor to "Warning" Status	<p>Define in which cases the sensor shows the Warning status:</p> <ul style="list-style-type: none"> ▪ Never (default): Never show the Warning status because of email content. ▪ Always: Always show the Warning status if it could identify any emails. ▪ If subject contains: Show the Warning status if the subject of the email contains the Search String you define below. ▪ If subject does not contain: Show the Warning status if the subject of the email does not contain the Search String you define below. ▪ If email body contains: Show the Warning status if the body of the email contains the Search String you define below. ▪ If email body does not contain: Show the Warning status if the body of the email does not contain the Search String you define below.
Search Method	<p>This setting is only visible if you select If subject contains, If subject does not contain, If email body contains, or If email body does not contain above. Define the method with which you want to search for the respective condition:</p> <ul style="list-style-type: none"> ▪ Simple string search: Search the email subject or body with a simple string in plain text. <p>i The characters * and ? work as placeholders. * stands for no number or any number of characters and ? stands for exactly one character. You cannot change this behavior. The literal search for these characters is only possible with a regex.</p> <ul style="list-style-type: none"> ▪ Regular expression: Search the email subject or body with a regex. <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴³⁷.</p>
Search String	<p>This setting is only visible if you select If subject contains, If subject does not contain, If email body contains, or If email body does not contain above. Define the string that you want to search the email subject or body for. You can enter a simple string in plain text or a regex.</p> <p>i The search string must be case sensitive.</p>
Warning Message	<p>This setting is only visible if you select a "warning" condition above. Define the message that the sensor shows for the Warning status.</p>
Set Sensor to "Down" Status	<p>Define in which cases the sensor shows the Down status.</p> <ul style="list-style-type: none"> ▪ Never (default): Never show the Down status based on email content. ▪ Always: Always show the Down status if any emails could be identified.

Setting	Description
	<ul style="list-style-type: none"> ▪ If subject contains: Show the Down status if the subject of the found email contains the Search String you define below. ▪ If subject does not contain: Show the Down status if the subject of the found email does not contain the Search String you define below. ▪ If email body contains: Show the Down status if the body of the found email contains the Search String you define below. ▪ If email body does not contain: Show the Down status if the body of the found email does not contain the Search String you define below.
Search Method	<p>This setting is only visible if you select If subject contains, If subject does not contain, If email body contains, or If email body does not contain above. Define the method with which you want to search for the respective condition:</p> <ul style="list-style-type: none"> ▪ Simple string search: Search the email subject or body with a simple string in plain text. <p>i The characters * and ? work as placeholders. * stands for no number or any number of characters and ? stands for exactly one character. You cannot change this behavior. The literal search for these characters is only possible with a regex.</p> <ul style="list-style-type: none"> ▪ Regular expression: Search the email subject or body with a regex. <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p>
Search String	<p>This setting is only visible if you select If subject contains, If subject does not contain, If email body contains, or If email body does not contain above. Define the string that you want to search the email subject or body for. You can enter a simple string in plain text or a regex.</p> <p>i The search string must be case sensitive.</p>
Error Message	<p>This setting is only visible if you select Always, If subject contains, If subject does not contain, If email body contains, or If email body does not contain above. Define the message that the sensor shows for the Down status.</p>
Based on Message Age, Set Sensor to "Warning" Status	<p>Define if you want to check the age of the latest matching email in the mailbox:</p> <ul style="list-style-type: none"> ▪ Never (default): Do not check the age of the email. ▪ If email is older than: Set the sensor to the Warning status if the found email is older than you define below.

Setting	Description
Message Age (Hours)	<p>This setting is only visible if you select the message age check above. Enter the maximum age in hours. If the processed email is older, the sensor shows the Warning status. Enter an integer value.</p> <p>i Ensure you do not manually edit emails in this mailbox with a different email client because this can result in malfunctions of the message age check.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



For more information, see section [Inheritance of Settings](#).


Scanning Interval

Click  to interrupt the inheritance.


Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Available	<p>The response time in milliseconds (msec)</p> <p> This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>

Channel	Description
Mailbox Size	The number of emails in the defined mailbox

More

KNOWLEDGE BASE

How can I monitor my backup software to be sure backup succeeded last night?

- <https://kb.paessler.com/en/topic/47023>

My IMAP sensor does not process HTML emails correctly using regex. What can I do?

- <https://kb.paessler.com/en/topic/61019>

Can I analyze multipart emails using the IMAP sensor?

- <https://kb.paessler.com/en/topic/63532>

My IMAP sensor does not find emails when I check for message date. What can I do?





- <https://kb.paessler.com/en/topic/69811>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

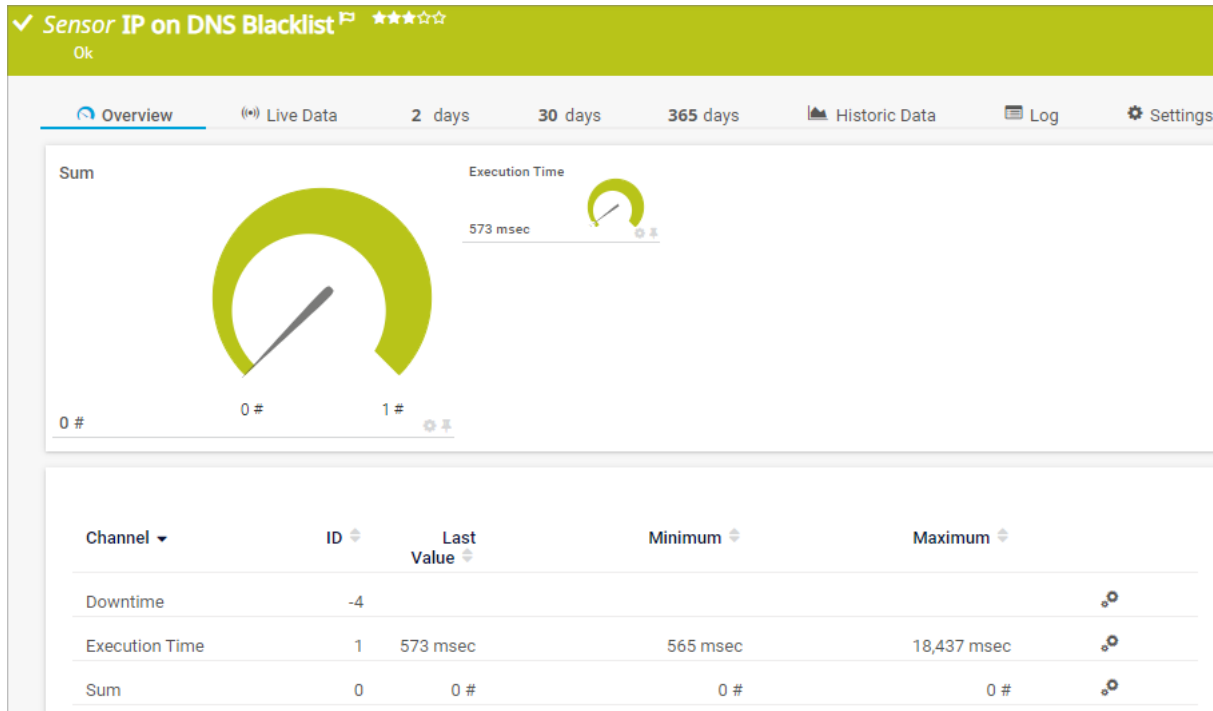
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3957

7.8.77 IP on DNS Blacklist Sensor

The IP on DNS Blacklist sensor checks if the IP address of its parent device is listed on specific blacklist servers.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



IP on DNS Blacklist Sensor

Sensor in Other Languages



- Dutch: IP op DNS Blacklist
- French: IP sur liste noire du DNS
- German: IP auf Schwarzer Liste des DNS
- Japanese: DNS ブラックリスト記載の IP
- Portuguese: IP em Blacklist DNS
- Russian: IP- DNS
- Simplified Chinese: DNS 黑名单 IP
- Spanish: Blacklist IP sobre DNS

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires .NET 4.7.2 or later on the probe system. If the sensor shows the error PE087, additionally install .NET 3.5 on the probe system.
- We recommend Windows 2012 R2 on the probe system for best performance of this sensor.

- This sensor supports the IPv6 protocol.
- If a Domain Name System (DNS) name is used as the host name of the parent device, PRTG resolves it to an IP address before querying blacklist servers.
- During normal operation, there should be 0 hits and the sensor should show the Up [status](#)¹⁹⁷. If the sensor can find the IP address on at least one of the blacklist servers, it shows the Warning status by default. You can set additional thresholds in the [channel settings](#)³⁹⁷⁷.
- See the Knowledge Base: [Is there a list of anti spam black list servers?](#)

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#)³⁶⁷ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ X +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ ptfsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

Sensor Settings

Sensor Settings

Blacklist Servers ⓘ
bl.spamcop.net

Sensor Settings

Setting	Description
Blacklist Servers	<p>Define the blacklist servers that the sensor uses for the check. You can enter a comma-separated list. The default is bl.spamcop.net.</p>

Setting	Description
	<ul style="list-style-type: none"> ■ For a list of servers, see the Knowledge Base: Is there a list of anti spam black list servers? ⓘ With each scanning interval, PRTG queries all servers in the list. We recommend that you do not enter more than 10 servers to make sure that the check can be completed within the scanning interval of this sensor. If you use too many blacklist servers, the sensor shows the error message Timeout (code: PE018).

Debug Options

Debug Options

Result Handling ⓘ
 Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>




Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

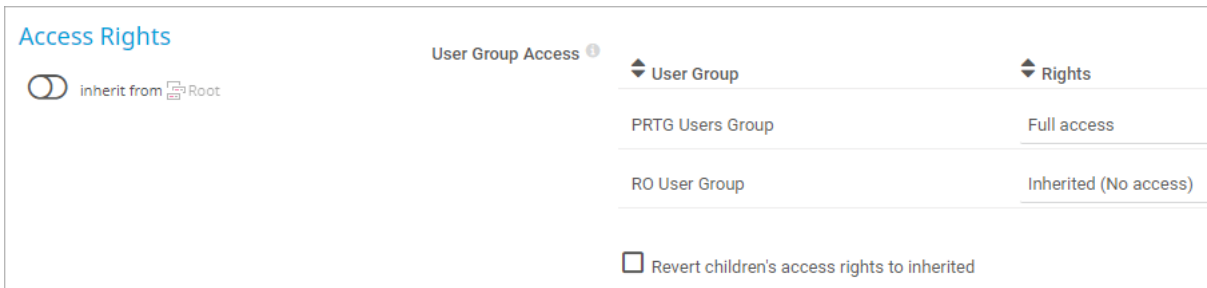
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>


Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights

User Group Access ⓘ

inherit from  Root

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Execution Time	The execution time in milliseconds (msec)
Sum	The number of blacklist hits found i This channel is the primary channel by default.

More

■ KNOWLEDGE BASE

Is there a list of anti spam black list servers?

- <https://kb.paessler.com/en/topic/37633>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

For which sensor types do you recommend Windows Server 2012 R2 or later and why?

- <https://kb.paessler.com/en/topic/64331>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

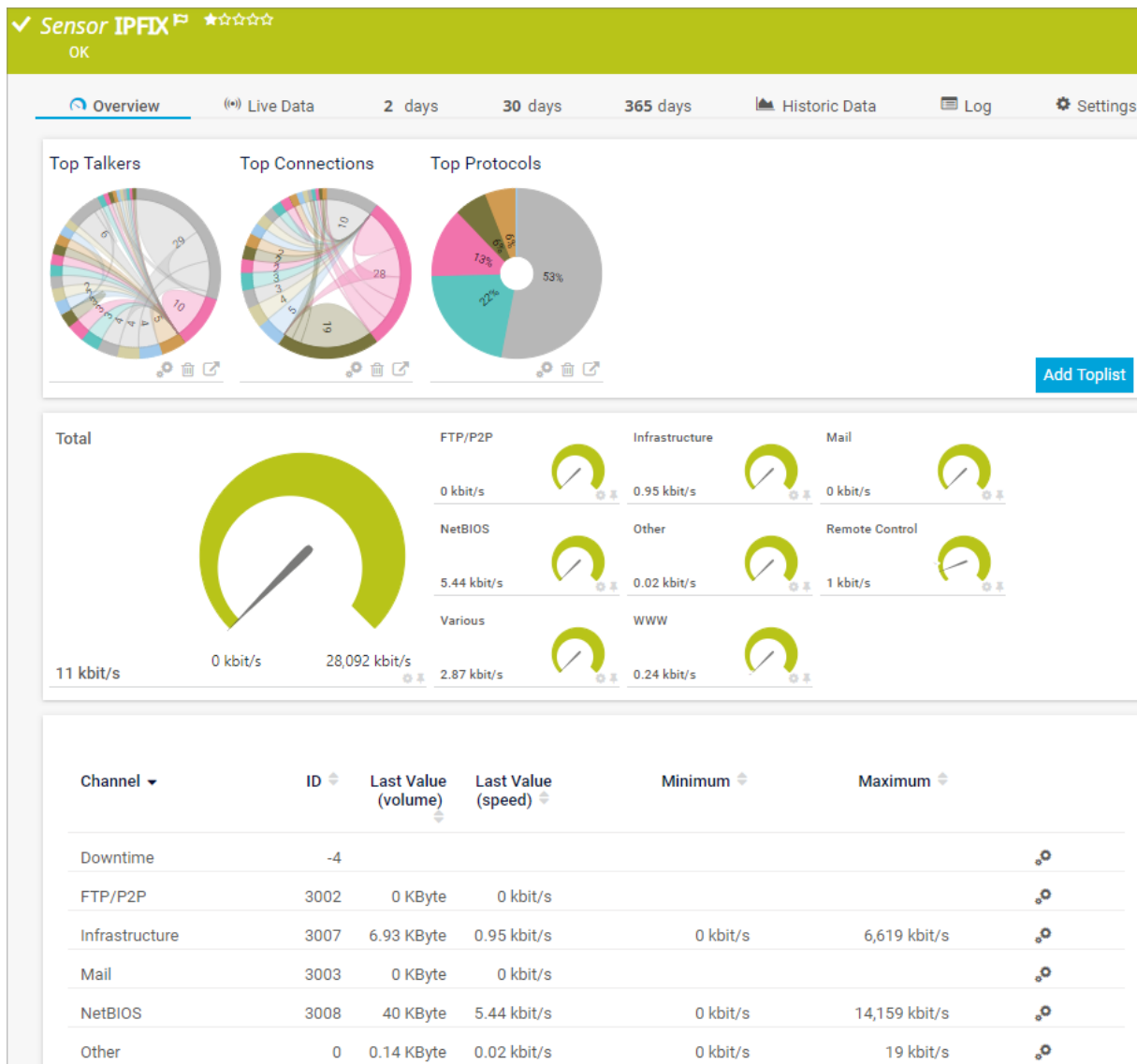
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.78 IPFIX Sensor

The IPFIX sensor receives traffic data from an Internet Protocol Flow Information Export (IPFIX) compatible device and shows traffic by type. This sensor has several filter options to divide traffic into different channels.

i Make sure that the target device supports IPFIX if you want to use this sensor.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



IPFIX Sensor

Sensor in Other Languages

- Dutch: IPFIX
- French: IPFIX
- German: IPFIX

- Japanese: IPFIX
- Portuguese: IPFIX
- Russian: IPFIX
- Simplified Chinese: IPFIX
- Spanish: IPFIX

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- You must enable IPFIX export on the device for this sensor to work. The device must send the flow data stream to the IP address of the probe system.
- This sensor does not officially support more than 50 channels. Depending on the data used with this sensor, you might exceed the maximum number of supported channels. In this case, PRTG tries to display all channels. Be aware, however, that you experience limited usability and performance.
- You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
- For a general introduction to the technology behind xFlow monitoring, see section [Monitoring Bandwidth via xFlows](#) ⁴³⁰⁵.
- See the Knowledge Base: [What is the Active Flow Timeout in Flow sensors?](#)

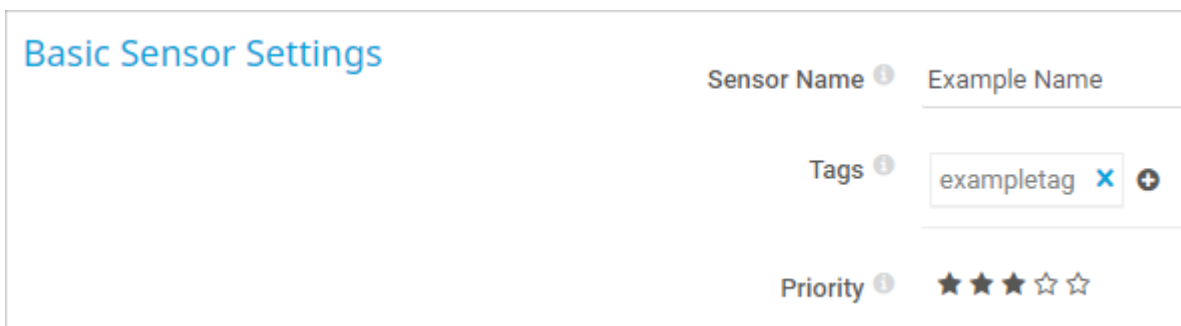
☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.



Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ bandwidthsensor ▪ netflowsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

IPFIX Specific Settings

IPFIX Specific Settings

Receive IPFIX Packets on UDP Port

Sender IP Address

Receive IPFIX Packets on IP Address ▼ Probe's Local IP Addresses

192.0.2.0






Active Flow Timeout (Minutes)

Sampling Mode Off
 On

Stream Data Handling Discard stream data (recommended)
 Store stream data only for the 'Other' channel
 Store all stream data

IPFIX Specific Settings

Setting	Description
Receive IPFIX Packets on UDP Port	Enter the UDP port number on which PRTG receives the flow packets. It must match the UDP port number in the IPFIX export options of the hardware router device. Enter an integer value.
Sender IP Address	Enter the IP address of the sending device that you want to receive the IPFIX data from. Enter an IP address to only receive data from a specific device or leave the field empty to receive data from any device on the UDP port.
Receive IPFIX Packets on IP Address	<p>Select the IP address(es) on which PRTG listens to IPFIX packets. The list of IP addresses is specific to your setup. To select an IP address, add a check mark in front of the respective line. The IP address that you select must match the IP address in the IPFIX export options of the hardware router device.</p> <p>i You can also select all items or cancel the selection by using the check box in the table header.</p>
Active Flow Timeout (Minutes)	Enter a time span in minutes after which the sensor must receive new flow data. If the timeout elapses and the sensor receives no new data during this time, it shows the Unknown status ¹⁹⁷ . Enter an integer value. The maximum timeout is 60 minutes.

Setting	Description
Sampling Mode	<p> We recommend that you set the timeout one minute longer than the timeout in the hardware router device.</p> <p> If you set this value too low, flow information might be lost.</p> <p> For more details, see the Knowledge Base: What is the Active Flow Timeout in Flow sensors?</p>
Sampling Rate	<p>Define if you want to use the sampling mode:</p> <ul style="list-style-type: none"> ▪ Off: Use the standard flow. ▪ On: Use the sampling mode and specify the Sampling Rate below. <p> This setting must match the setting in the xFlow exporter.</p> <p>This setting is only visible if you select On above. Enter a number that matches the sampling rate in the exporting device. If the number is different, monitoring results will be incorrect. Enter an integer value.</p>
Stream Data Handling	<p>Define what PRTG does with the stream and packet data:</p> <ul style="list-style-type: none"> ▪ Discard stream data (recommended): Do not store the stream and packet data. ▪ Store stream data only for the 'Other' channel: Only store stream and packet data that is not otherwise filtered and is therefore accounted to the default Other channel. PRTG stores this data in the \StreamLog subfolder of the PRTG data directory on the probe system. The file name is Streams Sensor [ID] (1).csv. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. ▪ Store all stream data: Store all stream and packet data. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> Use with caution. If you enable this setting, it can create huge data files. We recommend that you only use this setting for a short time.</p>

Channel Configuration

Channel Configuration

Group	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Content
Web	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	WWW Traffic: HTTP, HTTPS
File Transfer	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	File Transfer: FTP (Control)
Mail	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Mail Traffic: IMAP, POP3, SMTP
Chat	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Chat, Instant Messaging: IRC, AIM
Remote Control	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Remote Control: RDP, SSH, Telnet, VNC
Infrastructure	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Network Services: DHCP, DNS, Ident, ICMP, SNMP
NetBIOS	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	NetBIOS: NETBIOS
Citrix	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Citrix: Citrix
Other Protocols	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Various: Other UDP, Other TCP

Note You can change the default settings for the selected channels. This way, you do not have to customize this setting each time that you add this sensor type to PRTG. For details, see [this article](#) in the Knowledge Base.

Channel Configuration

Setting	Description
Channel Selection	<p>Define the categories that the sensor accounts the traffic to:</p> <ul style="list-style-type: none"> ▪ Web: Internet web traffic. ▪ File Transfer: Traffic from FTP. ▪ Mail: Internet mail traffic. ▪ Chat: Traffic from chat and instant messaging. ▪ Remote Control: Traffic from remote control applications such as RDP, SSH, Telnet, and VNC. ▪ Infrastructure: Traffic from network services such as DHCP, DNS, Ident, ICMP, and SNMP. ▪ NetBIOS: Traffic from NetBIOS communication. ▪ Citrix: Traffic from Citrix applications. ▪ Other Protocols: Traffic from various other protocols via UDP and TCP. <p>For each group, you can select how many channels the sensor uses, that is, how detailed the sensor divides the traffic. For each group, choose from:</p> <ul style="list-style-type: none"> ▪ No (✘): Do not account traffic of this group in its own channel. The sensor accounts all traffic of this group to the default channel named Other. ▪ Yes (✔): Count all traffic of this group and summarize it in one channel.

Setting	Description
	<ul style="list-style-type: none"> ▪ Detail (🔍): Count all traffic of this group and further divide it into different channels. The traffic appears in several channels that you can see in the Content column. <ul style="list-style-type: none"> ⓘ Extensive use of this option can cause load problems on the probe system. We recommend that you set specific, well-chosen filters for the data that you really want to analyze. ■ You can change the default configuration for groups and channels. For details, see the Knowledge Base: How can I change the default groups and channels for xFlow and Packet Sniffer sensors?

Filtering

■ For detailed information, see section [Filter Rules](#) ¹⁴⁷¹.

Filtering

Filters To include and exclude specific traffic, you can define filter rules based on the following format guidelines:

- field[filter]

Fields:

IP, Port, SourceIP, SourcePort, DestinationIP, DestinationPort, Protocol (values TCP, UDP, ICMP, OSPFIGP or any number), ToS, DSCP

Additional IPFIX fields:

Interface, ASI, InboundInterface, OutboundInterface, SourceASI, DestinationASI, MAC, SourceMAC, DestinationMAC, Mask, SourceMask, DestinationMask ('Masks' represent subnet masks in the form of a single number ('number of contiguous bits')), NextHop (IP Address), VLAN, SourceVLAN, DestinationVLAN ('VLANs' represent a VLAN identifier)

Include Filter ⓘ

Exclude Filter ⓘ

Filtering

Setting	Description
Include Filter	Define if you want to filter any traffic. If you leave this field empty, the sensor includes all traffic. To include specific traffic only, define filters using a special syntax.
Exclude Filter	First, the sensor considers the filters in Include Filter. From this subset, you can explicitly exclude traffic, using the same syntax.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Primary Toplist

Primary Toplist


Primary Toplist ⓘ Top Connections

Primary Toplist

Setting	Description
Primary Toplist	<p>Define which Toplist is the primary Toplist of the sensor:</p> <ul style="list-style-type: none"> ▪ Top Talkers ▪ Top Connections

Setting	Description
	<ul style="list-style-type: none"> ▪ Top Protocols ▪ [Any custom Toplists you add] <p> PRTG shows the primary Toplist in maps when you add a Toplist object.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[368] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².


Channel Unit Configuration

inherit from Root

Channel Unit Types ⓘ

Channel Type	Unit
Bytes (Bandwidth)	MB
	Mbit
	/
	second

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Toplists

For all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors, Toplists are available on the sensor's Overview tab. Using Toplists, you can review traffic data for small time periods in great detail.

 For more information, see section [Toplists](#) .

Filter Rules

The following filter rules apply to all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors.

 For more information, see section [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#) .

Field	Possible Filter Values
IP	IP address or Domain Name System (DNS) name
Port	Any number
SourceIP	IP address or Domain Name System (DNS) name
SourcePort	Any number
DestinationIP	IP address or Domain Name System (DNS) name
DestinationPort	Any number

Field	Possible Filter Values
Protocol	Transmission Control Protocol (TCP), User Datagram Protocol (UDP), Internet Control Message Protocol (ICMP), Open Shortest Path First (OSPF), any number
ToS	Type of Service (ToS): any number
DSCP	Differentiated Services Code Point (DSCP): any number

The following filter rules apply to IPFIX sensors only.


Field	Possible Filter Values
Interface	Any number
ASI	Any number
InboundInterface	Any number
OutboundInterface	Any number
SenderIP	IP address of the sending device. Use this if you have several devices that send flow data on the same port, and you want to divide the traffic of each device into a different channel. Possible values: IP address or DNS name
SourceASI	Any number
DestinationASI	Any number
MAC	Physical address
SourceMAC	Physical address
DestinationMAC	Physical address
Mask	Mask values represent subnet masks in the form of a single number (number of contiguous bits).
DestinationMask	Mask values represent subnet masks in the form of a single number (number of contiguous bits).
NextHop	IP address or Domain Name System (DNS) name

Field	Possible Filter Values
VLAN	VLAN values represent a VLAN identifier (any number)
SourceVLAN	VLAN values represent a VLAN identifier (any number)
DestinationVLAN	VLAN values represent a VLAN identifier (any number)

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Chat	The traffic from chat and instant messaging (Internet Relay Chat (IRC), AOL Instant Messenger (AIM)) in bytes per second
Citrix	The traffic from Citrix applications in bytes per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
FTP/P2P	The traffic from file transfer (File Transfer Protocol (FTP)/Peer-to-Peer (P2P)) in bytes per second
Infrastructure	The traffic from network services (Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), Ident, Internet Control Message Protocol (ICMP), Simple Network Management Protocol (SNMP)) in bytes per second
Mail	The internet mail traffic (Internet Message Access Protocol (IMAP), Post Office Protocol version 3 (POP3), Simple Mail Transfer Protocol (SMTP)) in bytes per second
NetBIOS	The traffic from NetBIOS communication in bytes per second
Other	The traffic from various other protocols (User Datagram Protocol (UDP), Transmission Control Protocol (TCP)) in bytes per second
Remote Control	The traffic from remote control applications (Remote Desktop Protocol (RDP), Secure Shell (SSH), Telnet, Virtual Network Computing (VNC)) in bytes per second

Channel	Description
Total	The total traffic in bytes per second  This channel is the primary channel by default.
Various	The traffic from various other sources in bytes per second
WWW	The traffic from the web (HTTP, HTTPS) in bytes per second

More

KNOWLEDGE BASE

What is the Active Flow Timeout in Flow sensors?

- <https://kb.paessler.com/en/topic/66485>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How can I change the default groups and channels for xFlow and Packet Sniffer sensors?

- <https://kb.paessler.com/en/topic/60203>





PAESSLER TOOLS

NetFlow Tester

- <https://www.paessler.com/tools/netflowtester>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

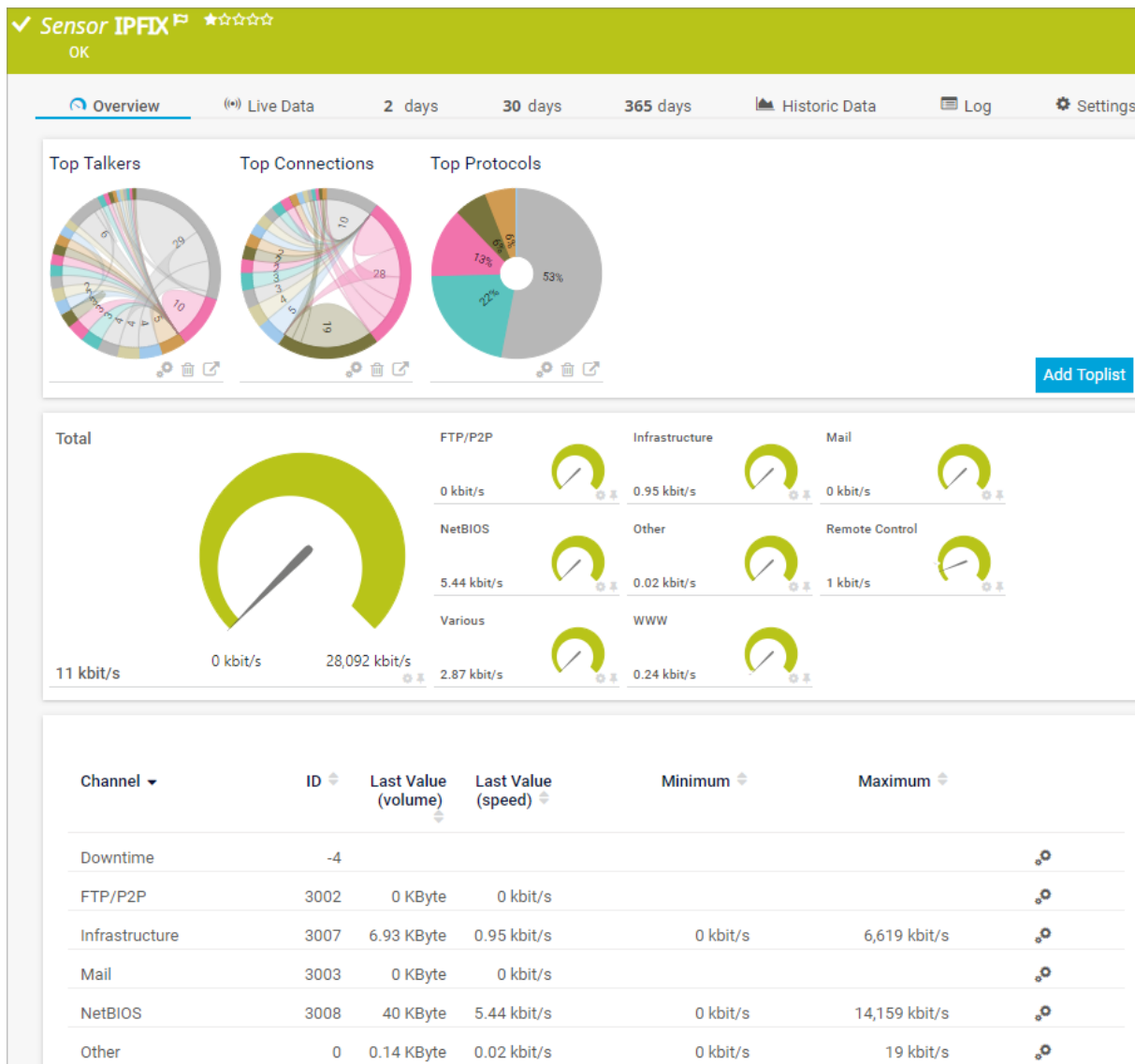
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.79 IPFIX (Custom) Sensor

The IPFIX (Custom) sensor receives traffic data from an Internet Protocol Flow Information Export (IPFIX) compatible device and shows the traffic by type. With this sensor, you can define your own channel definitions to divide traffic into different channels.

i Make sure that the target device supports IPFIX if you want to use this sensor.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



IPFIX (Custom) Sensor

Sensor in Other Languages

- Dutch: IPFIX (aangepast)
- French: IPFIX (Personnalisé)
- German: IPFIX (Benutzerdef.)

- Japanese: IPFIX(カスタム)
- Portuguese: IPFIX (customizado)
- Russian: IPFIX ()
- Simplified Chinese: IPFIX (自定义)
- Spanish: IPFIX (personalizado)

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- You must enable IPFIX export on the device for this sensor to work. The device must send the flow data stream to the IP address of the probe system.
- This sensor does not officially support more than 50 channels. Depending on the data used with this sensor, you might exceed the maximum number of supported channels. In this case, PRTG tries to display all channels. Be aware, however, that you experience limited usability and performance.
- You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
- For a general introduction to the technology behind xFlow monitoring, see section [Monitoring Bandwidth via xFlows](#) ⁴³⁰⁵.
- See the Knowledge Base: [What is the Active Flow Timeout in Flow sensors?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ bandwidthsensor ▪ netflowsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

IPFIX Specific Settings

IPFIX Specific Settings

Receive IPFIX Packets on UDP Port

Sender IP Address

Receive IPFIX Packets on IP Address

<input type="checkbox"/>	Probe's Local IP Addresses
<input checked="" type="checkbox"/>	192.0.2.0

Active Flow Timeout (Minutes)

Sampling Mode Off On

Channel Definition

Stream Data Handling Discard stream data (recommended) Store stream data only for the 'Other' channel Store all stream data

IPFIX Specific Settings

Setting	Description
Receive IPFIX Packets on UDP Port	Enter the UDP port number on which PRTG receives the flow packets. It must match the UDP port number in the IPFIX export options of the hardware router device. Enter an integer value.
Sender IP Address	Enter the IP address of the sending device that you want to receive the IPFIX data from. Enter an IP address to only receive data from a specific device or leave the field empty to receive data from any device on the UDP port.
Receive IPFIX Packets on IP Address	<p>Select the IP address(es) on which PRTG listens to IPFIX packets. The list of IP addresses is specific to your setup. To select an IP address, add a check mark in front of the respective line. The IP address that you select must match the IP address in the IPFIX export options of the hardware router device.</p> <p>i You can also select all items or cancel the selection by using the check box in the table header.</p>
Active Flow Timeout (Minutes)	<p>Enter a time span in minutes after which the sensor must receive new flow data. If the timeout elapses and the sensor receives no new data during this time, it shows the Unknown status¹⁹⁷. Enter an integer value. The maximum timeout is 60 minutes.</p> <p>i We recommend that you set the timeout one minute longer than the timeout in the hardware router device.</p> <p>i If you set this value too low, flow information might be lost.</p>

Setting	Description
	<p>■ For more details, see the Knowledge Base: What is the Active Flow Timeout in Flow sensors?</p>
Sampling Mode	<p>Define if you want to use the sampling mode:</p> <ul style="list-style-type: none"> ▪ Off: Use the standard flow. ▪ On: Use the sampling mode and specify the Sampling Rate below. <p>ⓘ This setting must match the setting in the xFlow exporter.</p>
Sampling Rate	<p>This setting is only visible when sampling mode is On above. Enter a number that matches the sampling rate in your device that exports the xFlows. If the number is different, monitoring results will be incorrect. Enter an integer value.</p>
Channel Definition	<p>Enter a channel definition to divide the traffic into different channels. Enter each definition in one line. The sensor accounts all traffic that you do not define a channel for to the default channel Other.</p> <p>■ For detailed information, see section Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors ⁴⁴⁸¹.</p> <p>ⓘ Extensive use of many filters can cause load problems on the probe system. We recommend that you define specific, well-chosen filters for the data that you really want to analyze. We recommend that you do not use more than 20 channels in graphs and tables, and not more than 100 channels in total. For performance reasons, we recommend that you add several sensors with fewer channels each.</p>
Stream Data Handling	<p>Define what PRTG does with the stream and packet data:</p> <ul style="list-style-type: none"> ▪ Discard stream data (recommended): Do not store the stream and packet data. ▪ Store stream data only for the 'Other' channel: Only store stream and packet data that is not otherwise filtered and is therefore accounted to the default Other channel. PRTG stores this data in the \StreamLog subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file name is Streams Sensor [ID] (1).csv. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. ▪ Store all stream data: Store all stream and packet data. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>ⓘ Use with caution. If you enable this setting, it can create huge data files. We recommend that you only use this setting for a short time.</p>


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings¹⁴⁸⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Filtering

 For detailed information, see section [Filter Rules](#)¹⁴⁸⁷.

Filtering

Filters To include and exclude specific traffic, you can define filter rules based on the following format guidelines:

- field[filter]

Fields:

IP, Port, SourceIP, SourcePort, DestinationIP, DestinationPort, Protocol (values TCP, UDP, ICMP, OSPFIGP or any number), ToS, DSCP

Additional IPFIX fields:

Interface, ASI, InboundInterface, OutboundInterface, SourceASI, DestinationASI, MAC, SourceMAC, DestinationMAC, Mask, SourceMask, DestinationMask ('Masks' represent subnet masks in the form of a single number ('number of contiguous bits')), NextHop (IP Address), VLAN, SourceVLAN, DestinationVLAN ('VLANs' represent a VLAN identifier)

Include Filter ⓘ

Exclude Filter ⓘ

Filtering

Setting	Description
Include Filter	Define if you want to filter any traffic. If you leave this field empty, the sensor includes all traffic. To include specific traffic only, define filters using a special syntax.
Exclude Filter	First, the sensor considers the filters in Include Filter. From this subset, you can explicitly exclude traffic, using the same syntax.

Primary Toplist


Primary Toplist

Primary Toplist ⓘ Top Connections

Primary Toplist

Setting	Description
Primary Toplist	<p>Define which Toplist is the primary Toplist of the sensor:</p> <ul style="list-style-type: none"> ▪ Top Talkers ▪ Top Connections ▪ Top Protocols ▪ [Any custom Toplists you add] <p> ⓘ PRTG shows the primary Toplist in maps when you add a Toplist object.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



For more information, see section [Inheritance of Settings](#).


Scanning Interval

Click  to interrupt the inheritance.


Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².


Channel Unit Configuration

inherit from Root

Channel Unit Types ⓘ

Channel Type	Unit
Bytes (Bandwidth)	MB
	Mbit
	/
	second

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Toplists

For all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors, Toplists are available on the sensor's Overview tab. Using Toplists, you can review traffic data for small time periods in great detail.

 For more information, see section [Toplists](#) .

Filter Rules

The following filter rules apply to all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors.

 For more information, see section [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#) .

Field	Possible Filter Values
IP	IP address or Domain Name System (DNS) name
Port	Any number
SourceIP	IP address or Domain Name System (DNS) name
SourcePort	Any number
DestinationIP	IP address or Domain Name System (DNS) name
DestinationPort	Any number

Field	Possible Filter Values
Protocol	Transmission Control Protocol (TCP), User Datagram Protocol (UDP), Internet Control Message Protocol (ICMP), Open Shortest Path First (OSPF), any number
ToS	Type of Service (ToS): any number
DSCP	Differentiated Services Code Point (DSCP): any number

The following filter rules apply to IPFIX sensors only.

Field	Possible Filter Values
Interface	Any number
ASI	Any number
InboundInterface	Any number
OutboundInterface	Any number
SenderIP	IP address of the sending device. Use this if you have several devices that send flow data on the same port, and you want to divide the traffic of each device into a different channel. Possible values: IP address or DNS name
SourceASI	Any number
DestinationASI	Any number
MAC	Physical address
SourceMAC	Physical address
DestinationMAC	Physical address
Mask	Mask values represent subnet masks in the form of a single number (number of contiguous bits).
DestinationMask	Mask values represent subnet masks in the form of a single number (number of contiguous bits).
NextHop	IP address or Domain Name System (DNS) name

Field	Possible Filter Values
VLAN	VLAN values represent a VLAN identifier (any number)
SourceVLAN	VLAN values represent a VLAN identifier (any number)
DestinationVLAN	VLAN values represent a VLAN identifier (any number)

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
[Custom]	The traffic by type according to the channel definition
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Other	All traffic for which no channel is defined in bytes per second
Total	The total traffic in bytes per second i This channel is the primary channel by default.

More

■ KNOWLEDGE BASE

What is the Active Flow Timeout in Flow sensors?

- <https://kb.paessler.com/en/topic/66485>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>





✂ PAESSLER TOOLS

NetFlow Tester

- <https://www.paessler.com/tools/netflowtester>

Sensor Settings Overview

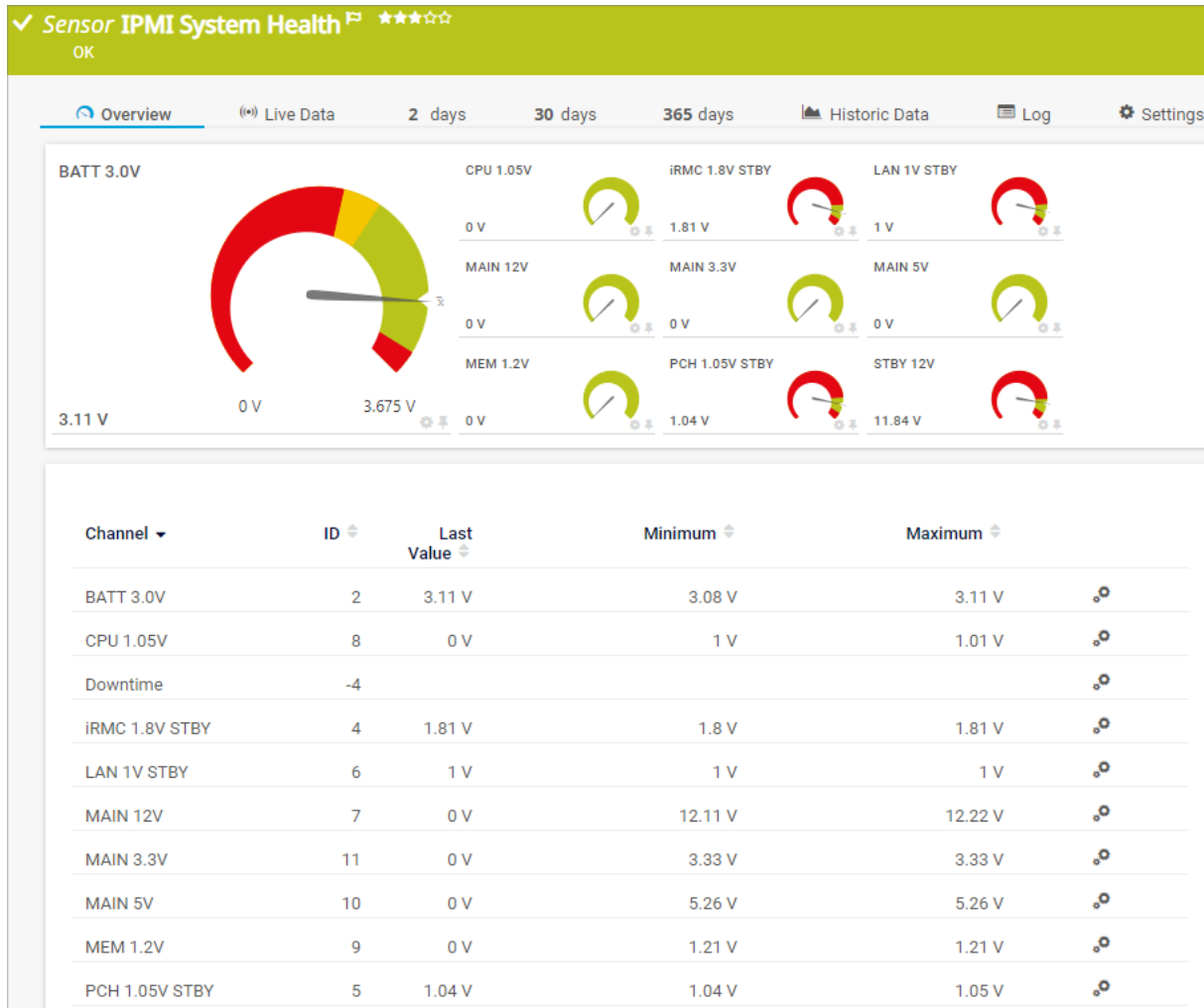
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.80 IPMI System Health Sensor

The IPMI System Health sensor monitors the status of a system via the Intelligent Platform Management Interface (IPMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



IPMI System Health Sensor


Sensor in Other Languages

- Dutch: IPMI System Health
- French: État du système IPMI
- German: IPMI Systemzustand
- Japanese: IPMI システム正常性
- Portuguese: Funcionamento do sistema via IPMI
- Russian: IPMI
- Simplified Chinese: IPMI 健康状况



- Spanish: Estado del sistema IPMI

Remarks

- You have to explicitly specify the credentials of the IPMI in the sensor settings.
- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).
- This sensor has predefined limits for several metrics. You can individually change these limits in the channel settings. For detailed information about channel limits, see section [Channel Settings](#).

 You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Before you can add this sensor, PRTG asks you to provide your credentials for the IPMI.

Working...
✕

IPMI Credentials

User Name ⓘ

This field is required.

Password ⓘ

This field is required.

OK
Cancel

IPMI Credentials

Setting	Description
User Name	Enter the user name for the IPMI.
Password	Enter the password for the IPMI. Click OK to define the sensor settings . ⓘ This sensor only supports passwords with a maximum of 16 characters.

ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

IPMI Specific

Setting	Description
Groups	Select the metrics that you want to monitor. PRTG creates one sensor for each metric that you select. ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ipmi
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

IPMI Credentials

IPMI Credentials

Username **i**

Password **i**

IPMI Credentials

Setting	Description
User Name	Enter the user name for the IPMI. If you did not change it already, this field shows the user name that you defined during sensor creation.
Password	Enter the password for the IPMI. If you did not change it already, this field shows the encrypted password that you defined during sensor creation. i This sensor only supports passwords with a maximum of 16 characters.

IPMI Specific

IPMI Specific

Group **i**

Result Handling **i** Discard result
 Store result

IPMI Specific

Setting	Description
Group	Shows the metric that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Result Handling	Define what PRTG does with the logfile results: <ul style="list-style-type: none"> Discard result: Do not store the sensor result.

Setting	Description
	<ul style="list-style-type: none"> Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel **ⓘ** Downtime


Graph Type **ⓘ** Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration^[4187] on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	The status of the value, for example

Channel	Description
	<ul style="list-style-type: none">▪ Fan revolutions per minute (RPM)▪ Status of a power supply▪ Temperatures, for example, the system temperature or the peripheral temperature▪ Voltages

More

KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

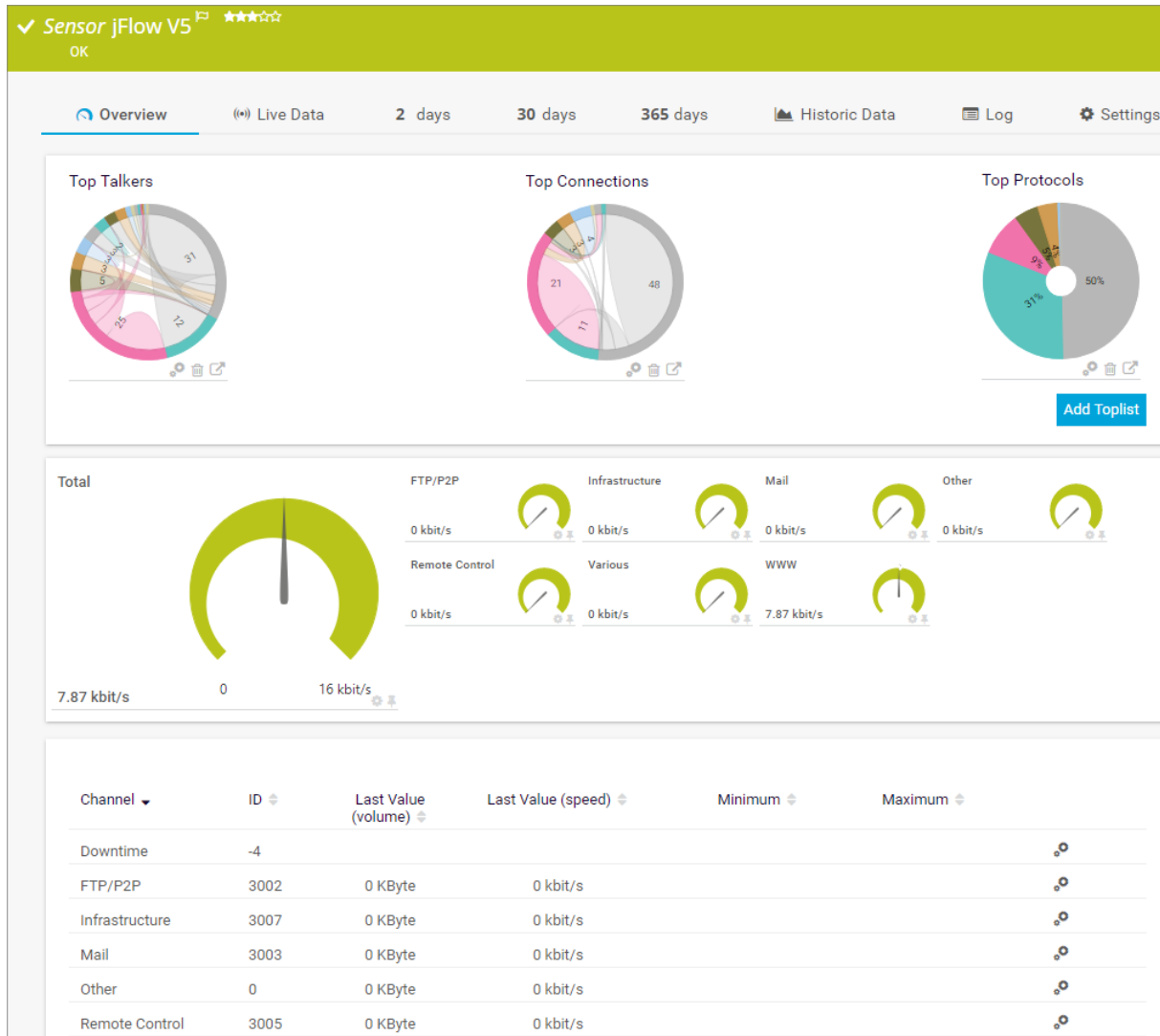
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.81 jFlow v5 Sensor

The jFlow v5 sensor receives traffic data from a jFlow v5-compatible device and shows the traffic by type. This sensor has several filter options to divide traffic into different channels.

i Make sure that the sensor matches the jFlow version that your device exports.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



jFlow v5 Sensor

Sensor in Other Languages

- Dutch: jFlow v5
- French: jFlow v5
- German: jFlow v5
- Japanese: jFlow v5
- Portuguese: jFlow v5

- Russian: jFlow v5
- Simplified Chinese: jFlow v5
- Spanish: jFlow v5

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- You must enable jFlow export of the respective version on the monitored device for this sensor to work. The device must send the flow data stream to the IP address of the probe system.
- For cloning this sensor, the following rules apply. If you add the clone to the **same** probe, PRTG keeps the selected IP addresses on which it listens for xFlow (NetFlow, jFlow, sFlow, IPFIX) packets. If you add the clone to a **different** probe, PRTG selects **all** available IP addresses by default. You can change the selected IP addresses in the sensor settings.
- You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
- See the Knowledge Base: [What is the Active Flow Timeout in Flow sensors?](#)
- See the Knowledge Base: [How can I change the default groups and channels for xFlow and Packet Sniffer sensors?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains the following fields:

- Sensor Name**: Example Name
- Tags**: exampletag (with a plus icon to add more tags)
- Priority**: Four stars (★★★★)

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ bandwidthsensor ▪ jflowsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.






jFlow v5 Specific Settings

jFlow v5 Specific Settings

Receive jFlow Packets on UDP Port ?	9997
Sender IP Address ?	
Receive jFlow Packets on IP Address ?	<input checked="" type="checkbox"/> ▾ Probe's Local IP Addresses
	<input checked="" type="checkbox"/> 192.0.2.0
Active Flow Timeout (Minutes) ?	10
Sampling Mode ?	<input checked="" type="radio"/> Off <input type="radio"/> On
Stream Data Handling ?	<input checked="" type="radio"/> Discard stream data (recommended) <input type="radio"/> Store stream data only for the 'Other' channel <input type="radio"/> Store all stream data

jFlow v5 Specific Settings

Setting	Description
Receive jFlow Packets on UDP Port	Enter the UDP port number on which PRTG receives the flow packets. It must match the UDP port number that in the jFlow export options of the hardware router device. Enter an integer value. i When you configure the export, make sure that you select the appropriate jFlow version for this sensor.
Sender IP Address	Enter the IP address of the sending device that you want to receive the jFlow data from. Enter an IP address to only receive data from a specific device or leave the field empty to receive data from any device on the UDP port.
Receive jFlow Packets on IP Address	Select the IP address(es) on which PRTG listens to jFlow packets. The list of IP addresses is specific to your setup. To select an IP address, add a check mark in front of the respective line. The IP address that you select must match the IP address in the jFlow export options of the hardware router device. i When you configure the export, make sure that you select the appropriate jFlow version for this sensor. i You can also select all items or cancel the selection by using the check box in the table header.

Setting	Description
Active Flow Timeout (Minutes)	<p>Enter a time span in minutes after which the sensor must receive new flow data. If the timeout elapses and the sensor receives no new data during this time, it shows the Unknown status^[197]. Enter an integer value. The maximum timeout is 60 minutes.</p> <ul style="list-style-type: none">  We recommend that you set the timeout one minute longer than the timeout in the hardware router device.  If you set this value too low, flow information might be lost.  For more details, see the Knowledge Base: What is the Active Flow Timeout in Flow sensors?
Sampling Mode	<p>Define if you want to use the sampling mode:</p> <ul style="list-style-type: none"> ▪ Off: Use the standard flow. ▪ On: Use the sampling mode and specify the Sampling Rate below. <p> This setting must match the setting in the xFlow exporter.</p>
Sampling Rate	<p>This setting is only visible if you select On above. Enter a number that matches the sampling rate in the exporting device. If the number is different, monitoring results will be incorrect. Enter an integer value.</p>
Stream Data Handling	<p>Define what PRTG does with the stream and packet data:</p> <ul style="list-style-type: none"> ▪ Discard stream data (recommended): Do not store the stream and packet data. ▪ Store stream data only for the 'Other' channel: Only store stream and packet data that is not otherwise filtered and is therefore accounted to the default Other channel. PRTG stores this data in the \StreamLog subfolder of the PRTG data directory^[4526] on the probe system. The file name is Streams Sensor [ID] (1).csv. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. ▪ Store all stream data: Store all stream and packet data. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> Use with caution. If you enable this setting, it can create huge data files. We recommend that you only use this setting for a short time.</p>

Channel Configuration

Channel Configuration

Group	✕	✓	🔍	Content
Web	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	WWW Traffic: HTTP, HTTPS
File Transfer	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	File Transfer: FTP (Control)
Mail	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Mail Traffic: IMAP, POP3, SMTP
Chat	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Chat, Instant Messaging: IRC, AIM
Remote Control	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Remote Control: RDP, SSH, Telnet, VNC
Infrastructure	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Network Services: DHCP, DNS, Ident, ICMP, SNMP
NetBIOS	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	NetBIOS: NETBIOS
Citrix	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Citrix: Citrix
Other Protocols	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	Various: Other UDP, Other TCP

Note You can change the default settings for the selected channels. This way, you do not have to customize this setting each time that you add this sensor type to PRTG. For details, see [this article](#) in the Knowledge Base.

Channel Configuration

Setting	Description
Channel Selection	<p>Define the categories that the sensor accounts the traffic to:</p> <ul style="list-style-type: none"> ▪ Web: Internet web traffic. ▪ File Transfer: Traffic from FTP. ▪ Mail: Internet mail traffic. ▪ Chat: Traffic from chat and instant messaging. ▪ Remote Control: Traffic from remote control applications such as RDP, SSH, Telnet, and VNC. ▪ Infrastructure: Traffic from network services such as DHCP, DNS, Ident, ICMP, and SNMP. ▪ NetBIOS: Traffic from NetBIOS communication. ▪ Citrix: Traffic from Citrix applications. ▪ Other Protocols: Traffic from various other protocols via UDP and TCP. <p>For each group, you can select how many channels the sensor uses, that is, how detailed the sensor divides the traffic. For each group, choose from:</p> <ul style="list-style-type: none"> ▪ No (✕): Do not account traffic of this group in its own channel. The sensor accounts all traffic of this group to the default channel named Other. ▪ Yes (✓): Count all traffic of this group and summarize it in one channel.

Setting	Description
	<ul style="list-style-type: none"> ▪ Detail (🔍): Count all traffic of this group and further divide it into different channels. The traffic appears in several channels that you can see in the Content column. <ul style="list-style-type: none"> ⓘ Extensive use of this option can cause load problems on the probe system. We recommend that you set specific, well-chosen filters for the data that you really want to analyze. ■ You can change the default configuration for groups and channels. For details, see the Knowledge Base: How can I change the default groups and channels for xFlow and Packet Sniffer sensors?

Filtering

■ For detailed information, see section [Filter Rules](#) ¹⁵¹⁷.

Filtering

Filters *To include and exclude specific traffic, you can define filter rules based on the following format guidelines:*

- field[filter]

Fields:

IP, Port, SourceIP, SourcePort, DestinationIP, DestinationPort, Protocol (values TCP, UDP, ICMP, OSPFIGP or any number), ToS, DSCP

Additional IPFIX fields:

Interface, ASI, InboundInterface, OutboundInterface, SourceASI, DestinationASI, MAC, SourceMAC, DestinationMAC, Mask, SourceMask, DestinationMask ('Masks' represent subnet masks in the form of a single number ('number of contiguous bits')), NextHop (IP Address), VLAN, SourceVLAN, DestinationVLAN ('VLANs' represent a VLAN identifier)

Include Filter ⓘ

Exclude Filter ⓘ

Filtering

Setting	Description
Include Filter	Define if you want to filter any traffic. If you leave this field empty, the sensor includes all traffic. To include specific traffic only, define filters using a special syntax.
Exclude Filter	First, the sensor considers the filters in Include Filter. From this subset, you can explicitly exclude traffic, using the same syntax.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Primary Toplist

Primary Toplist


Primary Toplist ⓘ Top Connections

Primary Toplist

Setting	Description
Primary Toplist	<p>Define which Toplist is the primary Toplist of the sensor:</p> <ul style="list-style-type: none"> ▪ Top Talkers ▪ Top Connections

Setting	Description
	<ul style="list-style-type: none"> ▪ Top Protocols ▪ [Any custom Toplists you add] <p> PRTG shows the primary Toplist in maps when you add a Toplist object.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[368] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p> i You can change the available intervals in the system administration on PRTG on premises installations. </p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p> i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply. </p> <p> i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply. </p> <p> i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply. </p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².


Channel Unit Configuration

inherit from Root

Channel Unit Types ⓘ

Channel Type	Unit
Bytes (Bandwidth)	MB
	Mbit
	/
	second

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Toplists

For all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors, Toplists are available on the sensor's Overview tab. Using Toplists, you can review traffic data for small time periods in great detail.

 For more information, see section [Toplists](#) .

Filter Rules

The following filter rules apply to all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors.

 For more information, see section [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#) .

Field	Possible Filter Values
IP	IP address or Domain Name System (DNS) name
Port	Any number
SourceIP	IP address or Domain Name System (DNS) name
SourcePort	Any number
DestinationIP	IP address or Domain Name System (DNS) name
DestinationPort	Any number

Field	Possible Filter Values
Protocol	Transmission Control Protocol (TCP), User Datagram Protocol (UDP), Internet Control Message Protocol (ICMP), Open Shortest Path First (OSPF), any number
ToS	Type of Service (ToS): any number
DSCP	Differentiated Services Code Point (DSCP): any number


The following filter rules apply to jFlow v5 sensors only.

Field	Possible Filter Values
Interface	Any number
ASI	Any number
InboundInterface	Any number
OutboundInterface	Any number
SenderIP	IP address of the sending device. Use this if you have several devices that send flow data on the same port, and you want to divide the traffic of each device into a different channel. Possible values: IP address or DNS name
SourceASI	Any number
DestinationASI	Any number

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Chat	The traffic from chat and instant messaging (Internet Relay Chat (IRC), AOL Instant Messenger (AIM)) in bytes per second
Citrix	The traffic from Citrix applications in bytes per second

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
FTP/P2P	The traffic from file transfer (File Transfer Protocol (FTP)/Peer-to-Peer (P2P)) in bytes per second
Infrastructure	The traffic from network services (Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), Ident, Internet Control Message Protocol (ICMP), Simple Network Management Protocol (SNMP)) in bytes per second
Mail	The internet mail traffic (Internet Message Access Protocol (IMAP), Post Office Protocol version 3 (POP3), Simple Mail Transfer Protocol (SMTP)) in bytes per second
NetBIOS	The traffic from NetBIOS communication in bytes per second
Other	The traffic from various other protocols (User Datagram Protocol (UDP), Transmission Control Protocol (TCP)) in bytes per second
Remote Control	The traffic from remote control applications (Remote Desktop Protocol (RDP), Secure Shell (SSH), Telnet, Virtual Network Computing (VNC)) in bytes per second
Total	The total traffic in bytes per second  This channel is the primary channel by default.
Various	The traffic from various other sources in bytes per second
WWW	The traffic from the web (HTTP, HTTPS) in bytes per second

More

■ KNOWLEDGE BASE

What is the Active Flow Timeout in Flow sensors?

- <https://kb.paessler.com/en/topic/66485>

How can I change the default groups and channels for xFlow and Packet Sniffer sensors?

- <https://kb.paessler.com/en/topic/60203>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>





Part 7: Device and Sensor Setup | 8 Sensor Settings
81 jFlow v5 Sensor

Where is the volume line in graphs?

- <https://kb.paessler.com/en/topic/61272>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

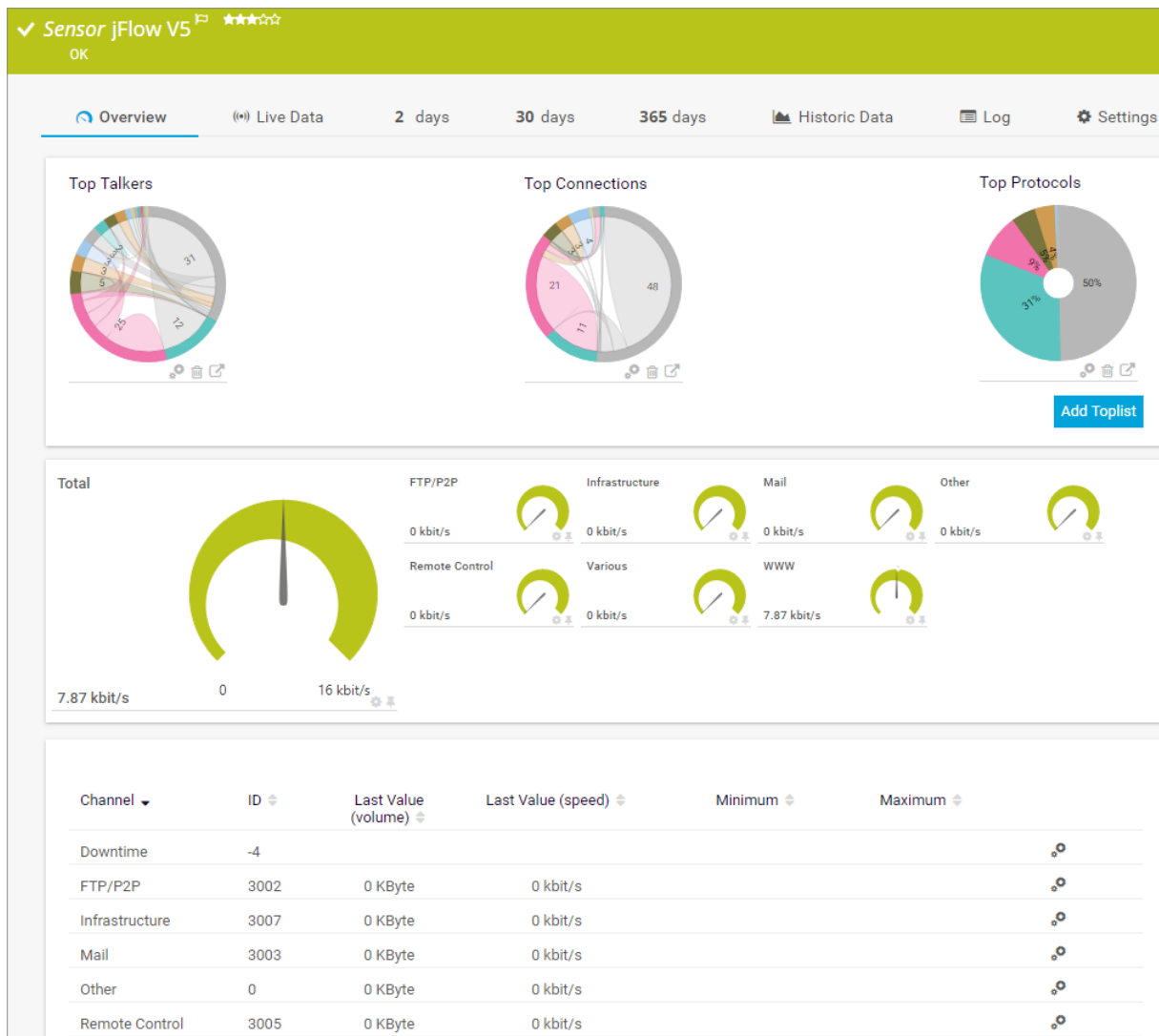
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.82 jFlow v5 (Custom) Sensor

The jFlow v5 (Custom) sensor receives traffic data from a jFlow v5-compatible device and shows the traffic by type. With this sensor, you can define your own channel definitions to divide traffic into different channels.

i Make sure that the sensor matches the jFlow version that your device exports.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



jFlow v5 (Custom) Sensor

Sensor in Other Languages

- Dutch: jFlow v5 (Klant specifiek)
- French: jFlow v5 (personnalisé)
- German: jFlow v5 (Benutzerdefiniert)
- Japanese: jFlow v5(カスタム)

- Portuguese: jFlow v5 (personalizado)
- Russian: jFlow v5 ()
- Simplified Chinese: jFlow v5 (自定义)
- Spanish: jFlow v5 (personalizado)

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- You must enable jFlow export of the respective version on the monitored device for this sensor to work. The device must send the flow data stream to the IP address of the probe system.
- This sensor does not officially support more than 50 channels. Depending on the data used with this sensor, you might exceed the maximum number of supported channels. In this case, PRTG tries to display all channels. Be aware, however, that you experience limited usability and performance.
- You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
- See the Knowledge Base: [What is the Active Flow Timeout in Flow sensors?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It includes the following fields and controls:

- Sensor Name:** A text input field with the value 'Example Name' and an information icon.
- Tags:** A text input field with the value 'exampletag', an 'X' icon to remove the tag, and a plus icon to add more tags.
- Priority:** A star rating system with five stars, where the first three are filled and the last two are empty.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ bandwidthsensor ▪ jflowsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

jFlow v5 Specific Settings

jFlow v5 Specific Settings

Receive jFlow Packets on UDP Port 9997

Sender IP Address

Receive jFlow Packets on IP Address

Probe's Local IP Addresses

192.0.2.0

Active Flow Timeout (Minutes) 10








Sampling Mode
 Off
 On

Channel Definition

Stream Data Handling
 Discard stream data (recommended)
 Store stream data only for the 'Other' channel
 Store all stream data

jFlow v5 Specific Settings

Setting	Description
Receive jFlow Packets on UDP Port	<p>Enter the UDP port number on which PRTG receives the flow packets. It must match the UDP port number that in the jFlow export options of the hardware router device. Enter an integer value.</p> <p>❗ When you configure the export, make sure that you select the appropriate jFlow version for this sensor.</p>
Sender IP Address	<p>Enter the IP address of the sending device that you want to receive the jFlow data from. Enter an IP address to only receive data from a specific device or leave the field empty to receive data from any device on the UDP port.</p>
Receive jFlow Packets on IP Address	<p>Select the IP address(es) on which PRTG listens to jFlow packets. The list of IP addresses is specific to your setup. To select an IP address, add a check mark in front of the respective line. The IP address that you select must match the IP address in the jFlow export options of the hardware router device.</p> <p>❗ When you configure the export, make sure that you select the appropriate jFlow version for this sensor.</p>

Setting	Description
	<p> You can also select all items or cancel the selection by using the check box in the table header.</p>
Active Flow Timeout (Minutes)	<p>Enter a time span in minutes after which the sensor must receive new flow data. If the timeout elapses and the sensor receives no new data during this time, it shows the Unknown status^[197]. Enter an integer value. The maximum timeout is 60 minutes.</p> <p> We recommend that you set the timeout one minute longer than the timeout in the hardware router device.</p> <p> If you set this value too low, flow information might be lost.</p> <p> For more details, see the Knowledge Base: What is the Active Flow Timeout in Flow sensors?</p>
Sampling Mode	<p>Define if you want to use the sampling mode:</p> <ul style="list-style-type: none"> ▪ Off: Use the standard flow. ▪ On: Use the sampling mode and specify the Sampling Rate below. <p> This setting must match the setting in the xFlow exporter.</p>
Sampling Rate	<p>This setting is only visible when sampling mode is On above. Enter a number that matches the sampling rate in your device that exports the xFlows. If the number is different, monitoring results will be incorrect. Enter an integer value.</p>
Channel Definition	<p>Enter a channel definition to divide the traffic into different channels. Enter each definition in one line. The sensor accounts all traffic that you do not define a channel for to the default channel Other.</p> <p> For detailed information, see section Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors^[4481].</p> <p> Extensive use of many filters can cause load problems on the probe system. We recommend that you define specific, well-chosen filters for the data that you really want to analyze. We recommend that you do not use more than 20 channels in graphs and tables, and not more than 100 channels in total. For performance reasons, we recommend that you add several sensors with fewer channels each.</p>
Stream Data Handling	<p>Define what PRTG does with the stream and packet data:</p> <ul style="list-style-type: none"> ▪ Discard stream data (recommended): Do not store the stream and packet data.

Setting	Description
	<ul style="list-style-type: none"> Store stream data only for the 'Other' channel: Only store stream and packet data that is not otherwise filtered and is therefore accounted to the default Other channel. PRTG stores this data in the \StreamLog subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file name is Streams Sensor [ID] (1).csv. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. Store all stream data: Store all stream and packet data. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i Use with caution. If you enable this setting, it can create huge data files. We recommend that you only use this setting for a short time.</p>

Filtering

For detailed information, see section [Filter Rules](#) ¹⁵³³.

Filtering

Filters *To include and exclude specific traffic, you can define filter rules based on the following format guidelines:*

- field[filter]

Fields:

IP, Port, SourceIP, SourcePort, DestinationIP, DestinationPort, Protocol (values TCP, UDP, ICMP, OSPFIGP or any number), ToS, DSCP

Additional IPFIX fields:

Interface, ASI, InboundInterface, OutboundInterface, SourceASI, DestinationASI, MAC, SourceMAC, DestinationMAC, Mask, SourceMask, DestinationMask ('Masks' represent subnet masks in the form of a single number ('number of contiguous bits')), NextHop (IP Address), VLAN, SourceVLAN, DestinationVLAN ('VLANs' represent a VLAN identifier)

Include Filter ⁱ

Exclude Filter ⁱ

Filtering

Setting	Description
Include Filter	Define if you want to filter any traffic. If you leave this field empty, the sensor includes all traffic. To include specific traffic only, define filters using a special syntax.
Exclude Filter	First, the sensor considers the filters in Include Filter. From this subset, you can explicitly exclude traffic, using the same syntax.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ⓘ).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Primary Toplist

Primary Toplist


Primary Toplist ⓘ Top Connections

Primary Toplist

Setting	Description
Primary Toplist	<p>Define which Toplist is the primary Toplist of the sensor:</p> <ul style="list-style-type: none"> ▪ Top Talkers ▪ Top Connections

Setting	Description
	<ul style="list-style-type: none"> ▪ Top Protocols ▪ [Any custom Toplists you add] <p> PRTG shows the primary Toplist in maps when you add a Toplist object.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ^[368] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


 For more information, see section [Inheritance of Settings](#) ^[142].


Scanning Interval

Click  to interrupt the [inheritance](#) ^[142].

Scanning Interval

 inherit from  Root

Scanning Interval  60 seconds

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².


Channel Unit Configuration

inherit from Root

Channel Unit Types ⓘ

Channel Type	Unit
Bytes (Bandwidth)	MB
	Mbit
	/
	second

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Toplists

For all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors, Toplists are available on the sensor's Overview tab. Using Toplists, you can review traffic data for small time periods in great detail.

 For more information, see section [Toplists](#) .

Filter Rules

The following filter rules apply to all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors.

 For more information, see section [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#) .

Field	Possible Filter Values
IP	IP address or Domain Name System (DNS) name
Port	Any number
SourceIP	IP address or Domain Name System (DNS) name
SourcePort	Any number
DestinationIP	IP address or Domain Name System (DNS) name
DestinationPort	Any number

Field	Possible Filter Values
Protocol	Transmission Control Protocol (TCP), User Datagram Protocol (UDP), Internet Control Message Protocol (ICMP), Open Shortest Path First (OSPF), any number
ToS	Type of Service (ToS): any number
DSCP	Differentiated Services Code Point (DSCP): any number


The following filter rules apply to jFlow v5 sensors only.

Field	Possible Filter Values
Interface	Any number
ASI	Any number
InboundInterface	Any number
OutboundInterface	Any number
SenderIP	IP address of the sending device. Use this if you have several devices that send flow data on the same port, and you want to divide the traffic of each device into a different channel. Possible values: IP address or DNS name
SourceASI	Any number
DestinationASI	Any number

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
[Custom]	The traffic by type according to the channel definition

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Other	All traffic for which no channel is defined in bytes per second
Total	The total traffic in bytes per second  This channel is the primary channel by default.

More

■ KNOWLEDGE BASE

What is the Active Flow Timeout in Flow sensors?

- <https://kb.paessler.com/en/topic/66485>

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

Where is the volume line in graphs?

- <https://kb.paessler.com/en/topic/61272>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

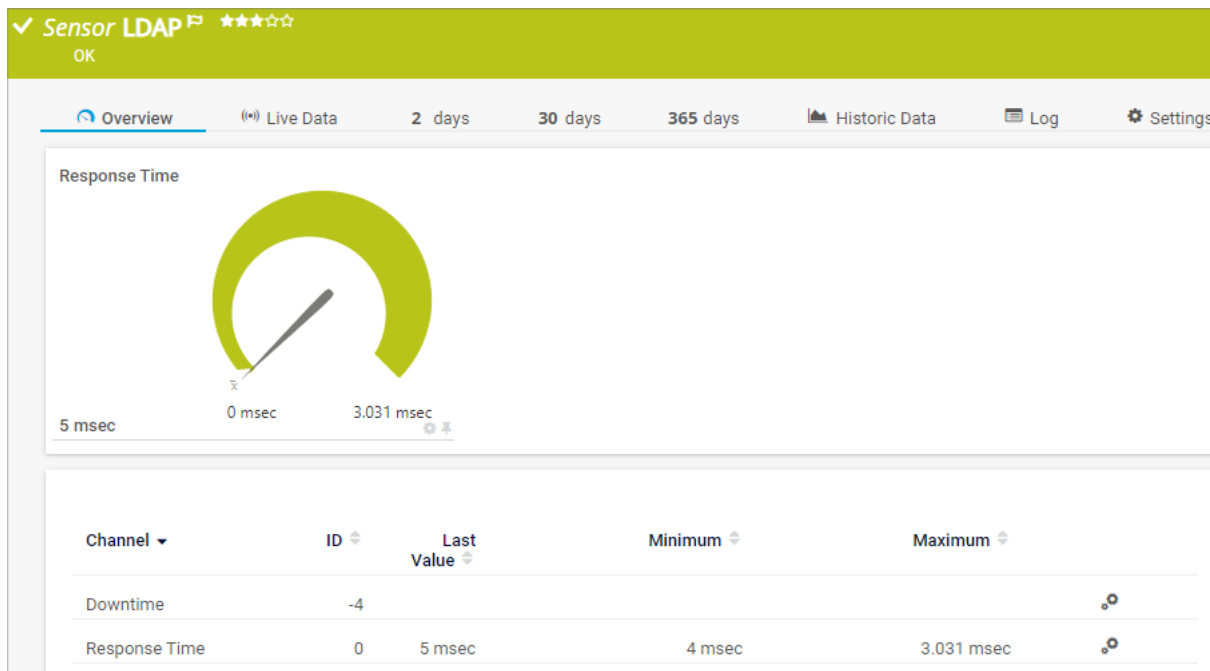
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3967

7.8.83 LDAP Sensor

The LDAP sensor monitors directory services via the Lightweight Directory Access Protocol (LDAP). It connects to the server by trying a "bind".

i If the server does not respond or authentication fails, the sensor shows the Down status.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



LDAP Sensor

Sensor in Other Languages

- Dutch: LDAP
- French: LDAP
- German: LDAP
- Japanese: LDAP
- Portuguese: LDAP
- Russian: LDAP
- Simplified Chinese: LDAP
- Spanish: LDAP

Remarks

- This sensor officially supports Microsoft implementations of LDAP. Other third-party LDAP implementations might work but are not officially supported.
- This sensor requires a DNS name in the [settings of the parent device](#) if you use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection to the LDAP server.

- This sensor has a medium performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a 'Basic Sensor Settings' dialog box. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list of tags with 'exampletag' selected. There are 'x' and '+' icons for removing and adding tags.
- Priority:** A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ Idapsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

LDAP Specific

LDAP Specific

Connection Security ⓘ

Use LDAP without connection security (default)

Use LDAP over SSL

Port Selection ⓘ

Use default port (default)

Use custom port

Distinguished Name ⓘ

Password ⓘ


LDAP Specific


Setting	Description
Connection Security	<p>Define if the sensor uses an SSL/TLS-secured connection to the LDAP server:</p> <ul style="list-style-type: none"> ▪ Use LDAP without connection security (default) ▪ Use LDAP over SSL <p>i If you select Use LDAP over SSL, you need to enter a DNS name in the settings of the parent device⁴⁴⁷. The sensor does not work with an IP address.</p>
Port Selection	<p>Define if you want to use a default port or a custom port for the connection to the LDAP server:</p> <ul style="list-style-type: none"> ▪ Use default port (default): Use the default port. This is port 389 for unsecure connections and port 636 for secure connections. ▪ Use custom port: Use a custom port. Specify the Port below.

Setting	Description
Port	This setting is only visible if you select Use custom port. Enter a custom port for the connection to the LDAP server. Enter an integer value.
Distinguished Name	Enter the distinguished name (DN) that you want to authenticate against the LDAP server. Usually, this is the information for the user that you want to authenticate with. For example, use the format <code>cn=Manager,dc=my-domain,dc=com</code> for a DN on an OpenLDAP server.
Password	Enter the password for the Distinguished Name .




Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type  Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration^[4187] on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Response Time	<p>The response time in milliseconds (msec)</p> <p> This channel is the primary channel by default.</p>

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

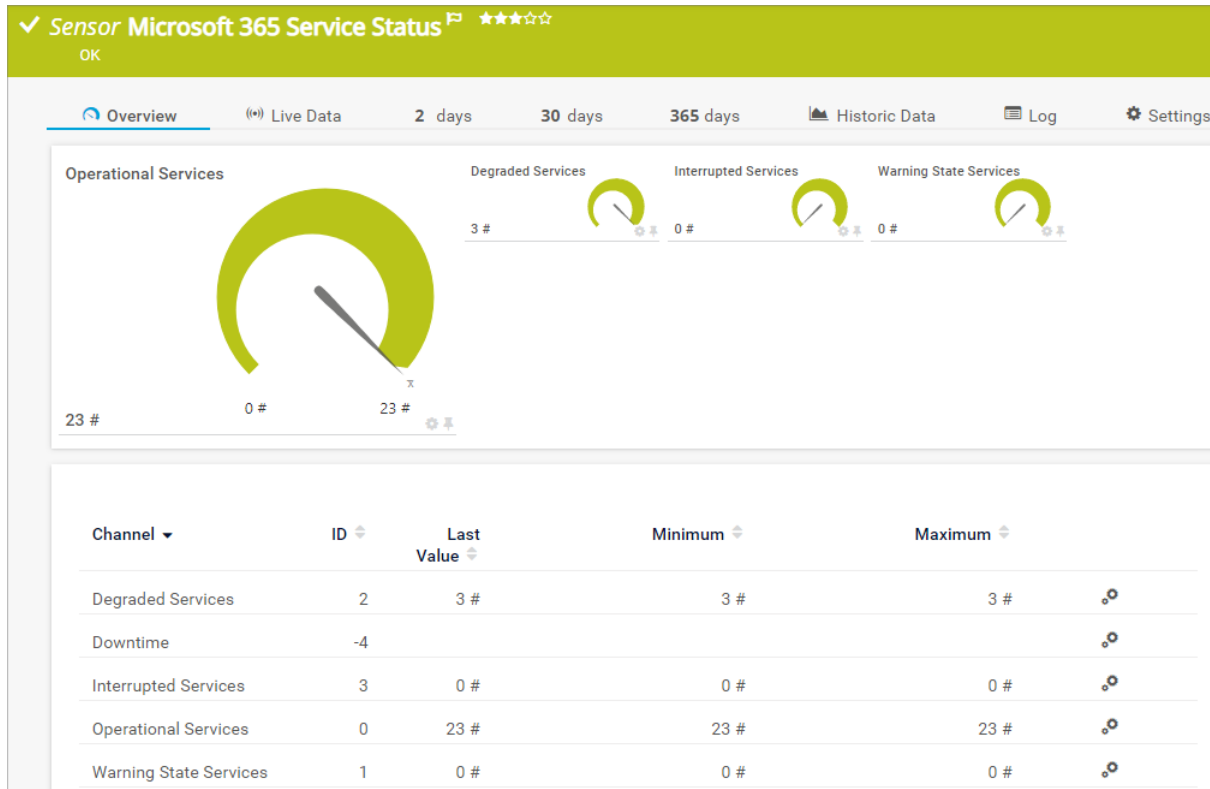
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.84 Microsoft 365 Service Status Sensor

The Microsoft 365 Service Status sensor monitors the overall status of all services of a Microsoft 365 subscription.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Microsoft 365 Service Status Sensor

Sensor in Other Languages

- Dutch: Microsoft 365 Service Status
- French: Microsoft 365 Service Status
- German: Microsoft 365 Service Status
- Japanese: Microsoft 365 Service Status
- Portuguese: Microsoft 365 Service Status
- Russian: Microsoft 365 Service Status
- Simplified Chinese: Microsoft 365 Service Status
- Spanish: Microsoft 365 Service Status

Remarks

- Define [credentials for Microsoft 365](#) in settings that are higher in the [object hierarchy](#), for example, in the settings of the parent device.
- This sensor [requires](#) permissions for the Office 365 Management APIs.

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- See the Knowledge Base: [How do I obtain credentials and set permissions for the Microsoft 365 sensors?](#)

Detailed Requirements

Requirement	Description
Permission for the APIs	<p>This sensor requires sufficient rights to query data from the Office 365 Management APIs:</p> <ul style="list-style-type: none"> ▪ API / Permissions name: Office 365 Management APIs / ServiceHealth.Read <p>■ For more information, see the Knowledge Base: How do I obtain credentials and set permissions for the Microsoft 365 sensors?</p>

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ ✕ +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree ¹⁸³¹, as well as in alarms ²²⁸¹, logs ²³⁷¹, notifications ⁴⁰³¹, reports ⁴⁰⁶⁹, maps ⁴⁰⁹⁵, libraries ⁴⁰⁴⁷, and tickets ²⁴⁰¹.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ microsoft365 ▪ microsoft365sensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.


Sensor Display

Sensor Display

Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Debug Options

Debug Options


Result Handling **i**

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule None ▼

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB ▾
	kbit ▾
	/ ▾
	sec... ▾
Bytes (Memory)	MB ▾
Bytes (Disk)	MB ▾
Bytes (File)	Byte ▾


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Degraded Services	The number of degraded services
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
Interrupted Services	The number of interrupted services
Operational Services	The number of operation services  This channel is the primary channel by default.
Warning State Services	The number of services in a warning state

More

■ KNOWLEDGE BASE

How do I obtain credentials and set permissions for the Microsoft 365 sensors?





- <https://kb.paessler.com/en/topic/88462>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

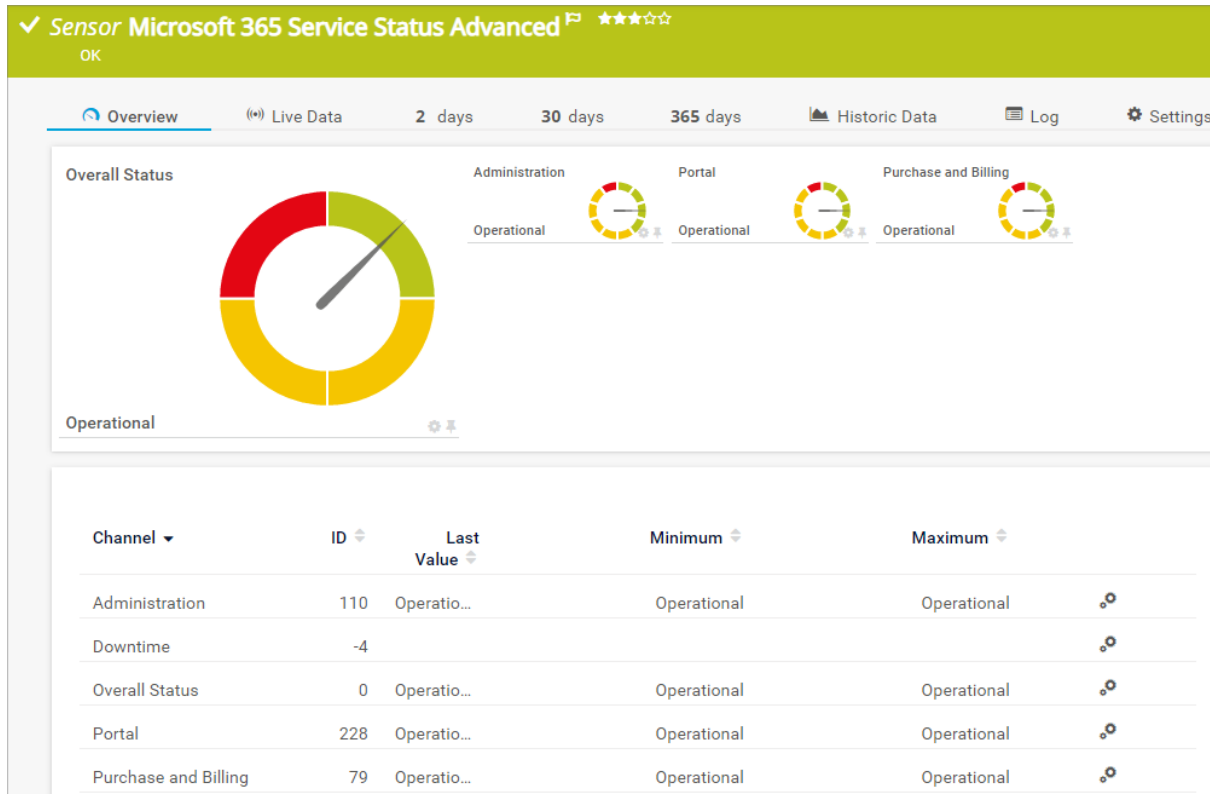
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.85 Microsoft 365 Service Status Advanced Sensor

The Microsoft 365 Service Status Advanced sensor monitors the detailed status of all services of a Microsoft 365 subscription.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Microsoft 365 Service Status Advanced Sensor

Sensor in Other Languages


- Dutch: Microsoft 365 Service Status Advanced
- French: Microsoft 365 Service Status Advanced
- German: Microsoft 365 Service Status Advanced
- Japanese: Microsoft 365 Service Status Advanced
- Portuguese: Microsoft 365 Service Status Advanced
- Russian: Microsoft 365 Service Status Advanced
- Simplified Chinese: Microsoft 365 Service Status Advanced
- Spanish: Microsoft 365 Service Status Advanced

Remarks

- Define [credentials for Microsoft 365](#) in settings that are higher in the [object hierarchy](#), for example, in the settings of the parent device.
- This sensor [requires](#) permissions for the Office 365 Management APIs.

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).
- See the Knowledge Base: [How do I obtain credentials and set permissions for the Microsoft 365 sensors?](#)


Detailed Requirements

Requirement	Description
Permission for the APIs	<p>This sensor requires sufficient rights to query data from the Office 365 Management APIs:</p> <ul style="list-style-type: none"> ▪ API / Permissions name: Office 365 Management APIs / ServiceHealth.Read <p> For more information, see the Knowledge Base: How do I obtain credentials and set permissions for the Microsoft 365 sensors?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Microsoft 365 Specific

Setting	Description
Service	<p>Select the services that you want to monitor. PRTG creates one sensor for each service that you select.</p> <p> Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ X +

Priority ⓘ ★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ microsoft365 ▪ microsoft365sensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Microsoft 365 Specific

Microsoft 365 Specific

Service ⓘ *Microsoft 365 suite*

Workload ID ⓘ *OSDPPlatform*

Microsoft 365 Specific

Setting	Description
Service	Shows the name of the service that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Workload ID	Shows the Microsoft 365 Workload ID of the service that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
API Request Retry	Enter a number how often the sensor queries the Office 365 Management APIs if an API query returns no result before the sensor shows the Down status. Enter an integer value. The default value is 3 . The maximum value is 10 . If you enter 0 , the sensor does not retry to query the APIs.

Sensor Display


Sensor Display

Primary Channel ⓘ *Downtime*

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other


Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor:

Setting	Description
	<ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.



Debug Options

Debug Options


Result Handling 

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None ▼




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Overall Status	<p>The overall status of all services</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Operational ▪ Warning status: Degraded. Warning ▪ Down status: Interrupted <p>i This channel is the primary channel by default.</p>
[Service]	<p>The detailed status of the service</p> <ul style="list-style-type: none"> ▪ Up status: False Positive, Operational, Post Incident Report Published, Restored ▪ Warning status: Degraded, Extended Recovery, Investigating, Restoring, Verifying ▪ Down status: Interrupted

More

■ KNOWLEDGE BASE

Part 7: Device and Sensor Setup | 8 Sensor Settings
85 Microsoft 365 Service Status Advanced Sensor

How do I obtain credentials and set permissions for the Microsoft 365 sensors?





- <https://kb.paessler.com/en/topic/88462>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

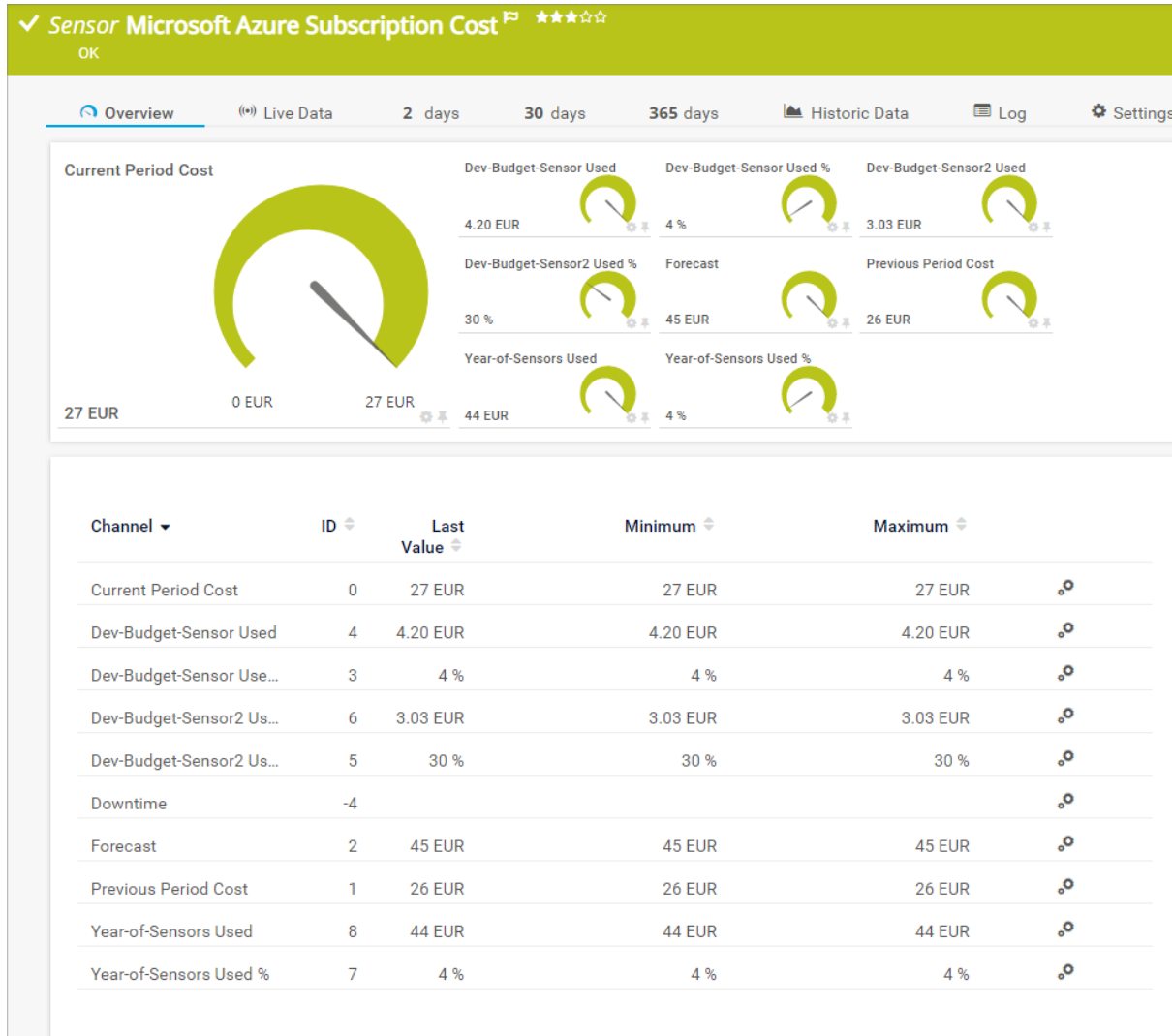
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.86 Microsoft Azure Subscription Cost Sensor

The Microsoft Azure Subscription Cost sensor monitors the cost in a Microsoft Azure subscription.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Microsoft Azure Subscription Cost Sensor

Sensor in Other Languages


- Dutch: Microsoft Azure Subscription Cost
- French: Microsoft Azure Subscription Cost
- German: Microsoft Azure Subscription Cost
- Japanese: Microsoft Azure Subscription Cost
- Portuguese: Microsoft Azure Subscription Cost
- Russian: Microsoft Azure Subscription Cost
- Simplified Chinese: Microsoft Azure Subscription Cost

- Spanish: Microsoft Azure Subscription Cost

Remarks

- This sensor requires [credentials for Microsoft Azure](#) in settings that are higher in the [object hierarchy](#), for example, in the settings of the parent device.
- This sensor [requires](#) an Azure custom role with permissions for specific actions.
- This sensor does not support cloud solution provider (CSP) subscriptions.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- See the Knowledge Base: [How do I obtain credentials and create custom roles for the Microsoft Azure sensors?](#)

Detailed Requirements

Requirement	Description
Permissions for the Azure custom role	<p>This sensor requires an Azure custom role with specific permissions. Create an Azure custom role and add permissions for the following actions:</p> <ul style="list-style-type: none"> ▪ "Microsoft.Consumption/*/read", ▪ "Microsoft.Consumption/*/action", ▪ "Microsoft.CostManagement/query/read", ▪ "Microsoft.Billing/*/read" <p> For more information, see the Knowledge Base: How do I obtain credentials and create custom roles for the Microsoft Azure sensors?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Microsoft Azure Specific

Setting	Description
Budgets	PRTG creates two default channels, one for the last period cost and one for the current period cost. Select if you want to create additional channels for the budget usage in your Microsoft Azure subscription.

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Cost Forecast	<p>Select if you want to create an additional channel with a cost forecast for your Microsoft Azure subscription.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a title 'Basic Sensor Settings' in blue. Below it are three settings: 'Sensor Name' with an information icon and the value 'Example Name'; 'Tags' with an information icon and a list containing 'exampletag' with a delete 'x' icon and an add '+' icon; and 'Priority' with an information icon and a star rating of 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p>

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ microsoftazure ▪ microsoftazuresubscriptioncost ▪ azure
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Microsoft Azure Specific

Microsoft Azure Specific

Budgets **i** *Enabled*

Cost Forecast **i** *Enabled*

Most Expensive Service **i** Disabled (default)
 Enabled

Microsoft Azure Specific

Setting	Description
Budgets	Shows if additional channels for the budget usage in your Microsoft Azure subscription are enabled or disabled. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Cost Forecast	Shows if the additional channel with a cost forecast for your Microsoft Azure subscription is enabled or disabled.

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Most Expensive Service	Select if you want to show the most expensive service of your Microsoft Azure subscription in the sensor message.
Most Expensive Service Category	<p>This field is only visible if you select Most Expensive Service above. Select the category for which you want to show the most expensive service in the sensor message. Choose between:</p> <ul style="list-style-type: none"> ▪ Resource group ▪ Resource type ▪ Resource ID ▪ Location ▪ Service name

Sensor Display

Sensor Display

Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Debug Options


Debug Options

Result Handling ⓘ Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval	
Scanning Interval ⓘ	60 seconds
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
Maintenance Window	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p> <p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 


Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Current Period Cost	The current period cost
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Forecast	The cost forecast
[Budget] Used	<p>The used budget</p> <p> This channel is the primary channel by default.</p>
[Budget] Used %	The used budget in percent
Previous Period Cost	The previous period cost

More

■ KNOWLEDGE BASE

How do I obtain credentials and create custom roles for the Microsoft Azure sensors?





- <https://kb.paessler.com/en/topic/88625>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

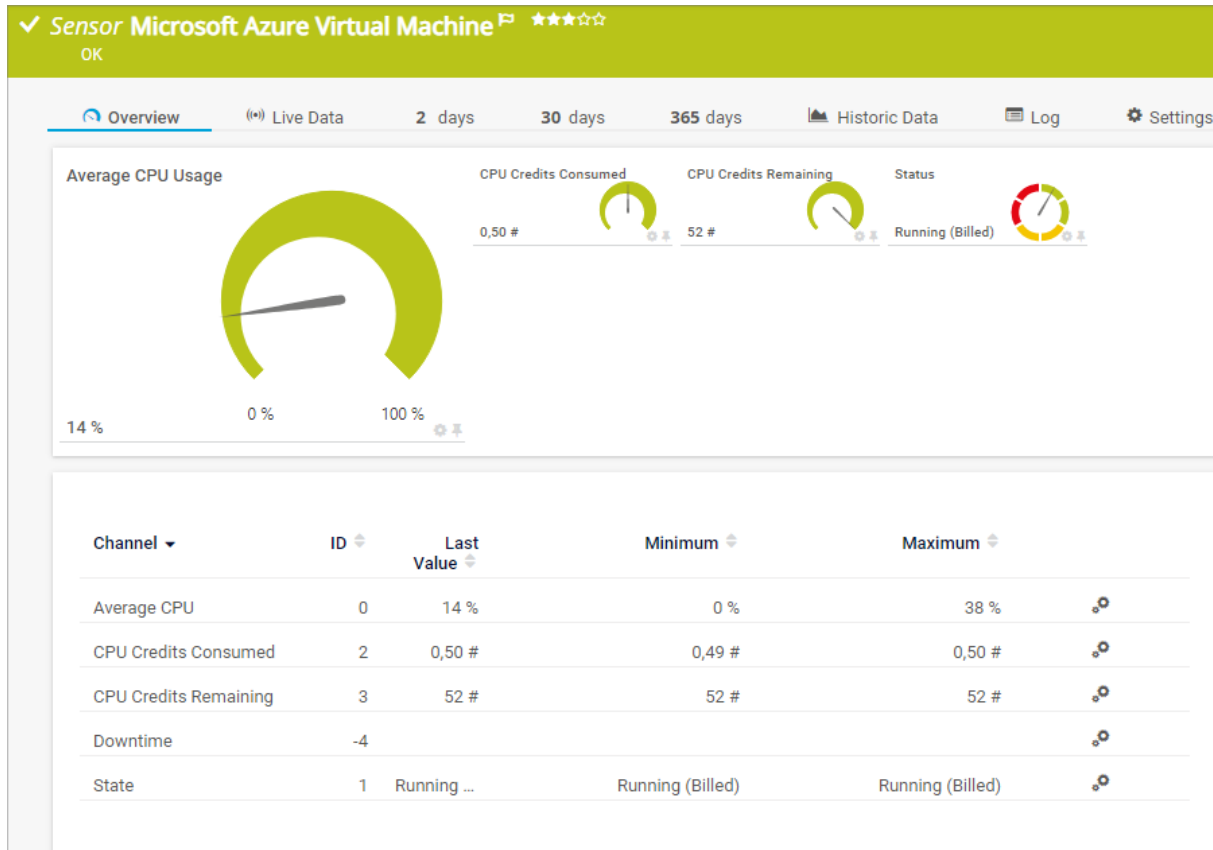
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.87 Microsoft Azure Virtual Machine Sensor

The Microsoft Azure Virtual Machine sensor monitors the status of a virtual machine in a Microsoft Azure subscription.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Microsoft Azure Virtual Machine Sensor

Sensor in Other Languages

- Dutch: Microsoft Azure Virtual Machine
- French: Microsoft Azure Virtual Machine
- German: Microsoft Azure Virtual Machine
- Japanese: Microsoft Azure Virtual Machine
- Portuguese: Microsoft Azure Virtual Machine
- Russian: Microsoft Azure Virtual Machine
- Simplified Chinese: Microsoft Azure Virtual Machine
- Spanish: Microsoft Azure Virtual Machine

Remarks

- This sensor requires [credentials for Microsoft Azure](#) in settings that are higher in the [object hierarchy](#), for example, in the settings of the parent device.
- This sensor [requires](#) an Azure custom role with permissions for specific actions.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).
- See the Knowledge Base: [How do I obtain credentials and create custom roles for the Microsoft Azure sensors?](#)

Detailed Requirements

Requirement	Description
Permissions for the Azure custom role	<p>This sensor requires an Azure custom role with specific permissions. Create an Azure custom role and add permissions for the following actions:</p> <ul style="list-style-type: none"> ▪ "Microsoft.Network/publicIPAddresses/read" ▪ "Microsoft.Network/virtualNetworks/read" ▪ "Microsoft.Network/loadBalancers/read" ▪ "Microsoft.Network/networkInterfaces/read" ▪ "Microsoft.Compute/virtualMachines/*/read" ▪ "Microsoft.Insights/Metrics/providers/Metrics/Read" ▪ "Microsoft.Insights/Metrics/Microsoft.Insights/Read" ▪ "Microsoft.Insights/Metrics/Read" ▪ "Microsoft.Insights/Metricnamespaces/Read" ▪ "Microsoft.Insights/MetricDefinitions/providers/Microsoft.Insights/Read" ▪ "Microsoft.Insights/Components/providers/Microsoft.Insights/MetricDefinitions/Read" <p>■ For more information, see the Knowledge Base: How do I obtain credentials and create custom roles for the Microsoft Azure sensors?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

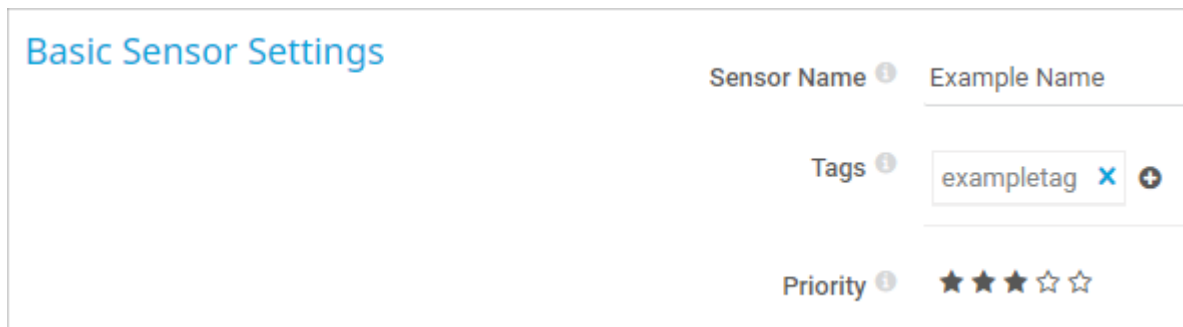
i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Microsoft Azure Specific

Setting	Description
Virtual Machines	<p>You see a list of all VMs available in the monitored Microsoft Azure subscription. All VMs are listed by name, resource group, region, and the operating system that they run on. Select the VMs that you want to monitor. PRTG creates one sensor for each VM that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.



Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Virtual Machine ID	Shows the ID of the virtual machine that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Operating System	Shows the operating system of the server on which the virtual machine runs. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Resource Group	Shows the Microsoft Azure resource group of the virtual machine that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Region	Shows the Azure region of the virtual machine that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.


Sensor Display


Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.



Debug Options

Debug Options


Result Handling 

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[452] on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Average CPU Usage	<p>The average CPU load in percent</p> <p>i This channel is the primary channel by default.</p>
CPU Credits Consumed	The number of consumed CPU credits
CPU Credits Remaining	The number of remaining CPU credits
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Status	<p>The overall status of the virtual machine</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Running (Billed), Starting (Not Billed) ▪ Warning status: Stopped (Billed), Stopping (Billed) ▪ Down status: Deallocated (Not Billed), Deallocating (Not Billed)

More

KNOWLEDGE BASE

How do I obtain credentials and create custom roles for the Microsoft Azure sensors?

Part 7: Device and Sensor Setup | 8 Sensor Settings
87 Microsoft Azure Virtual Machine Sensor





- <https://kb.paessler.com/en/topic/88625>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

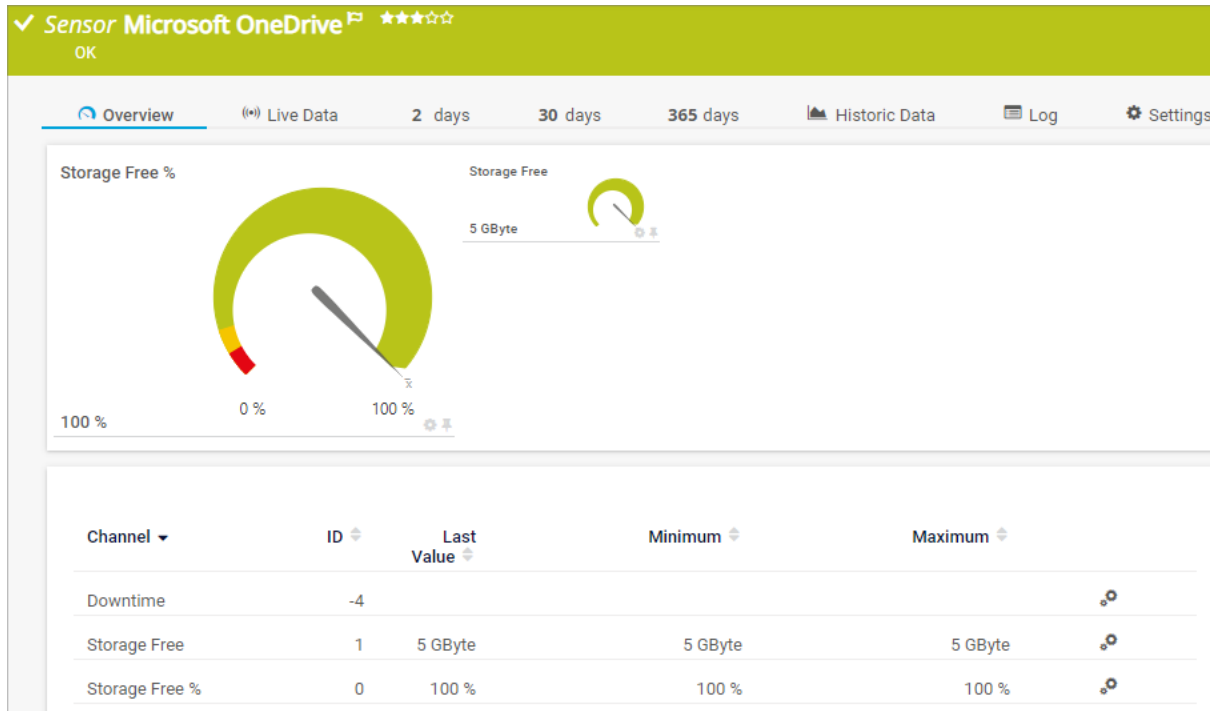
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3977

7.8.88 Microsoft OneDrive Sensor

The Microsoft OneDrive sensor monitors a Microsoft personal OneDrive account via the OneDrive application programming interface (API) and Open Authorization 2 (OAuth2).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Microsoft OneDrive Sensor

Sensor in Other Languages

- Dutch: Microsoft OneDrive
- French: Microsoft OneDrive
- German: Microsoft OneDrive
- Japanese: Microsoft OneDrive
- Portuguese: Microsoft OneDrive
- Russian: Microsoft OneDrive
- Simplified Chinese: Microsoft OneDrive
- Spanish: Microsoft OneDrive

Remarks

- The minimum scanning interval for this sensor is 30 minutes.
- This sensor only supports personal OneDrive accounts, it does not work with OneDrive for Business accounts.
- For details about OAuth2 authentication, see section [Authentication via OAuth2](#).

- This sensor has a low performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG requires OAuth2 authorization before you can add this sensor. Provide the required credentials in the dialog box that appears.

Microsoft Credentials

This sensor uses OAuth2 authentication to get access to your Microsoft account.

For details about this authentication approach, see section [Authentication via OAuth2](#).

Microsoft Credentials

Setting	Description
OAuth URL	Click Get Access Code to connect this sensor to your Microsoft OneDrive account using OAuth2. This is necessary to allow the sensor to query data from OneDrive. A new browser window appears.

Setting	Description
	Follow the steps in the browser window and confirm the permission for PRTG to connect to your OneDrive account. OneDrive forwards you to an empty page after you complete the authorization process. Copy the complete URL of this empty page and paste it into the OAuth Code field below.
OAuth Code	<p>Paste the complete URL of the empty page to which OneDrive forwards you. The empty page appears after you complete the authorization process for PRTG in your OneDrive account.</p> <p>i It is mandatory to connect this sensor to your OneDrive account to create this sensor. Complete the OAuth approach first to get the OAuth code.</p> <p>Click OK to define the sensor settings.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus sign, and a 'Priority' field with five stars.

Basic Sensor Settings

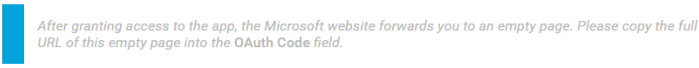
Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>


Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> ❗ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ❗ For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ msonedrivesensor ▪ cloudstorage
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

❗ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Microsoft Credentials

Microsoft Credentials

Where to find the code?  After granting access to the app, the Microsoft website forwards you to an empty page. Please copy the full URL of this empty page into the OAuth Code field.

OAuth Code 

Microsoft Credentials

Setting	Description
OAuth Code	<p>Shows the authorization code that the sensor uses to access your OneDrive account.</p> <ul style="list-style-type: none"> ❗ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

ⓘ This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#)⁴¹⁸⁷ settings are not available for this sensor.

Scanning Interval	
Scanning Interval ⓘ	60 seconds
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p> <p> ⓘ The minimum scanning interval for this sensor is 30 minutes.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management^[155].</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#)^[142].

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Authentication via OAuth2


 This sensor uses the OAuth2 security protocol to access the account from which you want to retrieve and monitor data. OAuth2 enables you to grant access to the target account without sharing your password with PRTG. The authorization approach of PRTG using OAuth2 works as follows.

1. Authorization Request

First, you have to request authorization for this sensor to access service resources from your account. For this purpose, you are asked to get an access code for this sensor in the Add Sensor dialog. Click Get Access Code to start the authorization process using OAuth2. A new browser window opens on the authorization server of the target service.

2. Verifying Identity

This new window contains a login form for your account that you want to monitor. Log in to your account using your credentials for this service to authenticate your identity. This is a common login to your account on the target server so PRTG does not see your password. The service forwards you to the authorization page and asks you to permit PRTG to access the data in your account.


 If you are already logged in to the service with a user account, you do not have to enter credentials in this step and get directly to the access permission page.

3. Authorizing PRTG

Permit PRTG to access information on your account. Note that this permission holds only for this specific sensor, not for other sensors of this type or PRTG as a whole. For each sensor of this type you add, you have to confirm the access permission anew. You can change the account permissions at any time in your account at the target service.

4. Getting Authorization Code

Permitting PRTG to access your account data forwards you to a page where the service provides an authorization code. Copy this code and switch back to the Add Sensor dialog in PRTG.

 The code is only valid for a short period of time and expires after a few minutes. You can use a particular code only once.

5. Providing Authorization Code

Paste the authorization code into the OAuth Code field and complete the Add Sensor dialog. You do not have to go through further configuration steps manually. The sensor automatically accomplishes the following steps.


6. Requesting Access Token


After receiving the authorization code, PRTG requests an access token from the API of the target service. For this purpose, PRTG transmits the authorization code together with several authentication details. The API checks if the authorization is valid and returns the access token to PRTG. Access tokens are specific for one account and one application (here: PRTG). The authorization process to read data from your account is now complete.

7. Retrieving Data

The sensor transmits the access token with each sensor scan in the defined scanning interval to authenticate with your account. It is not necessary to use the original account credentials anew. The used tokens refresh automatically from time to time.

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Storage Free	The free storage in bytes
Storage Free %	The free storage in percent  This channel is the primary channel by default.

More





 KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

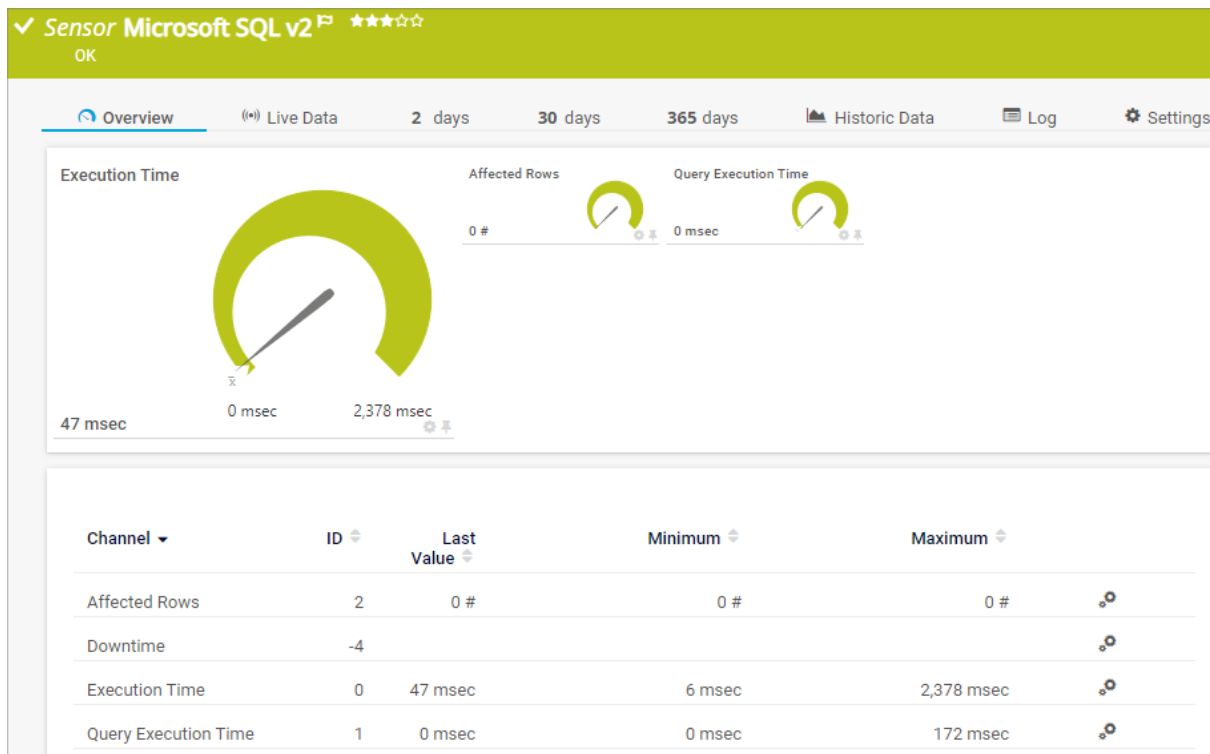
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.89 Microsoft SQL v2 Sensor

The Microsoft SQL v2 sensor monitors a database on a Microsoft SQL server and executes a query.

i The sensor can also process the data table and show the values that you define in individual channels.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Microsoft SQL v2 Sensor

Sensor in Other Languages

- Dutch: Microsoft SQL v2
- French: Microsoft SQL v2
- German: Microsoft SQL v2
- Japanese: Microsoft SQL v2
- Portuguese: Microsoft SQL v2
- Russian: Microsoft SQL v2
- Simplified Chinese: Microsoft SQL v2
- Spanish: Microsoft SQL v2



Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.

- You must store your Structured Query Language (SQL) query in a file on the probe system. In a cluster, copy the file to every cluster node.
- This sensor requires .NET 4.7.2 or later on the probe system.
- Define credentials, custom port (if required), and timeout in the [credentials for database management systems](#) settings of the parent device, or in the settings of a group or probe above.
- This sensor supports Microsoft SQL server 2005 or later.
- This sensor supports the IPv6 protocol.
- See section [Monitoring Databases](#) for an [example](#) for channel value selection.
- See the Knowledge Base: [How to set up the SQL v2 sensors in PRTG? Is there a guide?](#)
- See the Knowledge Base: [How can I monitor strings from an SQL database and show a sensor status depending on it?](#)
- See the Knowledge Base: [How can I monitor error tables in SQL databases?](#)
- See the Knowledge Base: [Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Data

Setting	Description
SQL Query File	<p>Select the SQL query file that includes a valid SQL statement that the sensor executes on the server with every scanning interval. The list contains SQL scripts from the \Custom Sensors\sql subfolder of the PRTG program directory on the probe system. Store your script there. If you use the script on a cluster probe, you must store the script on all cluster nodes.</p> <p>A correct expression in the file could be: <code>SELECT AVG(UnitPrice) FROM Products</code>. If you want to use transactions, separate the individual steps with semicolons ";".</p> <ul style="list-style-type: none"> i Note that with each request, PRTG transfers the full result set, so use filters and limits in your query. i The demo script Demo Serveruptime.sql is available by default. You can use the it to monitor the uptime of the target server. ■ See also the Knowledge Base: Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?
Data Processing	<p>Define whether the sensor processes data from the database:</p> <ul style="list-style-type: none"> ■ Only execute query: Only show information about the number of affected rows and the execution time of the query. Affected rows are rows that were changed by the query (for example, created, deleted, or edited). ■ Count table rows: Execute a <code>SELECT</code> statement and monitor how many rows of the data table this statement returns. ■ Process data table: Read and analyze the data table. If you select this option, the sensor counts rows with <code>SELECT</code> statements as well.
Channel #2 – #10	<p>This setting is only visible if you select Process data table above. You can define up to 10 additional channels for the data processing of this sensor. You have to define at least one data channel if you process the data table, so you automatically see all available settings for Channel #1. Specify how to handle all other possible channels:</p> <ul style="list-style-type: none"> ■ Disable: Do not create this channel. ■ Enable: Create this channel. i It is not possible to enable or disable channels after sensor creation.
Channel #x Name	<p>This setting is only visible if you select Process data table above. Enter a unique name for the channel. Enter a string. PRTG dynamically generates channels with this name as the identifier.</p> <ul style="list-style-type: none"> i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?

Setting	Description
Channel #x Mode	<p>This setting is only visible if you select Process data table above. Define how to display the determined value in the channel:</p> <ul style="list-style-type: none"> ▪ Absolute (recommended): Show the value as the sensor retrieves it from the data table. ▪ Difference: The sensor calculates and shows the difference between the last and the current value returned from the data table. <ul style="list-style-type: none"> ❗ This mode is not compatible with the unit Lookup. ❗ This mode only works if the difference between the last and the current value is positive and increases with each scanning interval. This mode does not support negative and decreasing values.
Channel #x Unit	<p>This setting is only visible if you select Process data table above. Define the unit of the channel value:</p> <ul style="list-style-type: none"> ▪ BytesBandwidth ▪ BytesMemory ▪ BytesDisk ▪ Temperature ▪ Percent ▪ TimeResponse ▪ TimeSeconds ▪ TimeHours ▪ Count ▪ CPU ▪ BytesFile ▪ SpeedDisk ▪ SpeedNet ▪ Custom ▪ Lookup <p>■ For more information about the available units, see section Custom Sensors.</p> <p>❗ To use lookups with this channel, select Lookup and define the lookup file in Channel #x Lookup. Do not use Custom if you use lookups with this sensor.</p> <p>❗ It is not possible to use the unit Lookup in combination with the Difference mode. You are not able to create the sensor in this case.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sqlsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

Database Specific

Database Specific

Database ⓘ MyDatabase

SQL Server Instance ⓘ No instance name required (default)
 Use instance name

Instance Name ⓘ SQLEXPRESS

Encryption ⓘ Use server defaults (default)
 Enforce encryption but do not validate server certificate
 Enforce encryption and validate server certificate

Database Specific

Setting	Description
Database	Enter the name of the SQL database to which the sensor connects, for example, MyDatabase . This is a logical entity on the database server where database objects exist.
SQL Server Instance	Define if you want to use an instance name for the database connection: <ul style="list-style-type: none"> No instance name required (default): Use the default instance for the connection. Use instance name: Use a named instance. Specify the Instance Name below.
Instance Name	This setting is only visible if you select Use instance name above. Enter the name of the instance that you want to monitor.
Encryption	Define the encryption usage for the database connection: <ul style="list-style-type: none"> Use server defaults (default): Only encrypt the database connection if the database server enforces encryption. Enforce encryption but do not validate server certificate: Make sure that the database connection is encrypted. Enforce encryption and validate server certificate: Force encryption and validate the database server certificate. This approach provides the highest level of security and can help prevent man-in-the-middle attacks, for example. <ul style="list-style-type: none"> i The sensor only validates the certificate if the database server enforces encryption.

Data

Data

SQL Query File ⓘ *Demo Serveruptime.sql*

Input Parameter Handling ⓘ Do not use input parameter (default)
 Use input parameter






Transaction Handling ⓘ Do not use transaction (default)
 Use transaction and always roll back
 Use transaction and commit on success

Data Processing ⓘ *Only execute query*


Result Handling ⓘ Discard result
 Store result

Data

Setting	Description
SQL Query File	Shows the SQL script file that the sensor executes on the server. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Input Parameter Handling	Define if you want to pass a parameter to the SQL query file: <ul style="list-style-type: none"> ▪ Do not use input parameter (default): Execute the SQL query file without using variables. ▪ Use input parameter: Execute an SQL query file that contains a variable. Provide the parameter that you want to use in the query below.
Input Parameter	This setting is only visible if you select Input Parameter Handling above. Enter the parameter that you want to pass to the SQL query file. This parameter replaces the variables @prtg, :prtg, or ? in the SQL query, considering the general rules for SQL variables. You can also use PRTG placeholders for custom sensors (command-line parameters) as input parameters, for example, %sensorid or %deviceid. For details, see section Custom Sensors [444]. ⓘ Provide strings as they are and do not surround them with quotation marks. PRTG automatically and correctly inserts string parameters into the query.
Transaction Handling	Define if you want to use transactions and if they affect the database content: <ul style="list-style-type: none"> ▪ Do not use transaction (default): Do not execute transactions.

Setting	Description
	<ul style="list-style-type: none"> ▪ Use transaction and always roll back: The query does not change data in the database. In the SQL query file, separate the single steps of the transaction with semicolons. ▪ Use transaction and commit on success: The query changes data in the database. The changes only apply if all execution steps succeed without any errors. In the SQL query file, separate the single steps of the transaction with semicolons.
Data Processing	<p>Shows how the sensor processes data from the database.</p> <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Handle DBNull in Channel Values as	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define the sensor behavior if the query returns DBNull:</p> <ul style="list-style-type: none"> ▪ Error: Show a Down status if the query returns DBNull. ▪ Number 0: Recognize the result DBNull as a valid value and interpret it as the number 0.
Select Channel Value by	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define how to select the desired cell in the database table:</p> <ul style="list-style-type: none"> ▪ Column number: Determine the channel value by using the value in row 0 of the column whose number you specify in Channel #x Column Number. ▪ Column name: Determine the channel value by using the value in row 0 of the column whose name you specify in Channel #x Column Name. ▪ Row number: Determine the channel value by using the value in column 0 of the row whose number you specify in Channel #x Row Number. ▪ Key value pair: Determine the channel value by searching in column 0 for the key you specify in Channel #x Key and by returning the value in column 1 of the same row where the key value was found. <p> Defining how the desired cell in the database table is selected is necessary to configure the cells that are used in the channels.</p> <p> The option you select here also defines the method of how to optionally determine a value for the sensor message. For details, see setting Use Data Table Value in Sensor Message.</p> <p> For an example for channel value selection, see section Monitoring Databases .</p>
Channel #x	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. The setting shows if the channel is disabled.</p>

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Channel #x Name	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Enter a unique name for the channel. Enter a string. The sensor dynamically generates channels with this name as identifier.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Channel #x Column Number	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Column number for the setting Select Channel Value by. Provide the number of the column to use to determine the channel value in row 0. Enter an integer value.</p>
Channel #x Column Name	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Column name for the setting Select Channel Value by. Provide the name of the column to use to determine the channel value in row 0. Enter an integer value.</p>
Channel #x Row Number	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Row number for the setting Select Channel Value by. Provide the number of the column to use to determine the channel value in row 0. Enter an integer value.</p>
Channel #x Key	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Key value pair for the setting Select Channel Value by. Provide the key to search for in column 0 of the data table. The value in column 1 of the same row where the key value was found to use to determine the channel value. Enter a string.</p>
Channel #x Mode	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. The setting shows how you want to display the determined value in the channel.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Channel #x Unit	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define the unit of the channel value:</p> <ul style="list-style-type: none"> ▪ BytesBandwidth ▪ BytesMemory ▪ BytesDisk

Setting	Description
	<ul style="list-style-type: none"> ▪ Temperature ▪ Percent ▪ TimeResponse ▪ TimeSeconds ▪ TimeHours ▪ Count ▪ CPU ▪ BytesFile ▪ SpeedDisk ▪ SpeedNet ▪ Custom ▪ Lookup
Channel #x Custom Unit	This setting is only visible if you select the channel unit Custom above. Define a unit for the channel value. Enter a string.
Channel #x Lookup	This setting is only visible if you select the channel unit Lookup above. Select a lookup file that you want to use with this channel.
Use Data Table Value in Sensor Message	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define if the sensor message shows a value from the data table:</p> <ul style="list-style-type: none"> ▪ Disable: Do not use a custom sensor message. ▪ Enable: Define a custom sensor message with a defined value of the data table. Define the value selection below. <p>The method of how to determine a value for the sensor message is defined in the setting Select Channel Value by above.</p>
Sensor Message Column Number	This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Column number for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the number of a column. The sensor message shows the value in row 0 of this column. Enter an integer value.
Sensor Message Column Name	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Column name for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the name of a column. The sensor message shows the value in row 0 of this column. Enter a string.</p> <p> Columns start with index 0.</p>

Setting	Description
Sensor Message Row Number	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Row number for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the name of a column. The sensor message shows the value in row 0 of this column. Enter the number of a row. The sensor message shows the value in column 0 of this row. Enter an integer value.</p> <p>i Rows start with index 0.</p>
Sensor Message Key	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Key value pair for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter a key to search for in column 0 of the data table. The sensor message shows the value in column 1 of the row where the key was found. Enter a string.</p>
Sensor Message	<p>This setting is only visible if you enable Use Data Table Value in Sensor Message. Define the sensor message. Enter a string. Use the placeholder {0} at the position where you want to display the value.</p> <p>Example: The message is {0}</p> <p>i The number sign (#) is not supported in sensor messages. If a message contains a number sign, the message is clipped at this point.</p>
If Sensor Message Changes	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation.</p> <p>Define what the sensor does when the sensor message changes:</p> <ul style="list-style-type: none"> Ignore changes (default): Take no action on change. Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁶, you can use this mechanism to trigger a notification³³⁶⁷ whenever the sensor value changes.
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click ⓘ to interrupt the [inheritance](#).

Scanning Interval	
Scanning Interval ⓘ	60 seconds
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
Maintenance Window	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p> <p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Affected Rows	The number of rows that were addressed by the query (including SELECT statements if you process data tables)
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Execution Time	<p>The execution time of the entire request (including connection buildup, query execution, transaction handling, disconnection) in milliseconds (msec)</p> <p>i This channel is the primary channel by default.</p>
Query Execution Time	The execution time of the specified query in msec

More

■ KNOWLEDGE BASE

How to set up the SQL v2 sensors in PRTG? Is there a guide?

- <https://kb.paessler.com/en/topic/70618>

How can I monitor strings from an SQL database and show a sensor status depending on it?

- <https://kb.paessler.com/en/topic/63259>

How can I monitor error tables in SQL databases?

- <https://kb.paessler.com/en/topic/70774>

Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?

- <https://kb.paessler.com/en/topic/75372>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

How do I monitor the size of a Microsoft SQL Server database?

- <https://kb.paessler.com/en/topic/18183>

Sensor Settings Overview

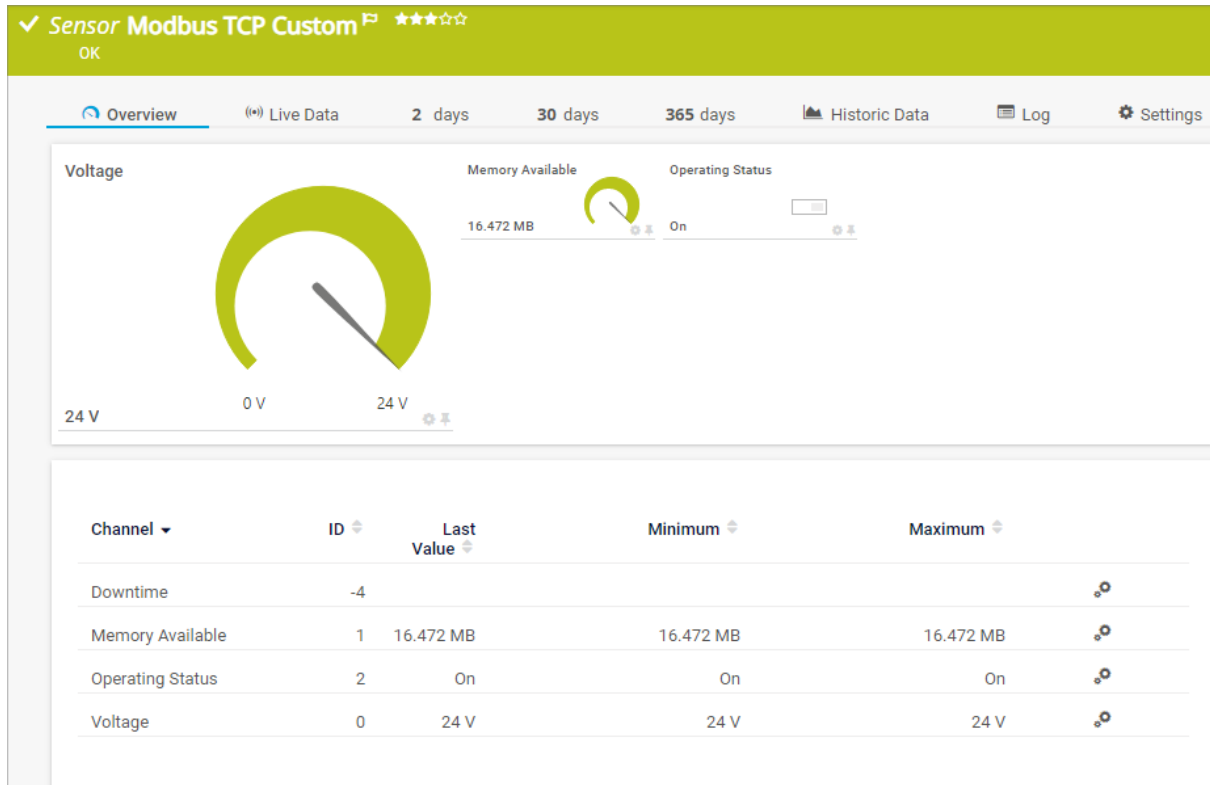
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.90 Modbus TCP Custom Sensor

The Modbus TCP Custom sensor connects to a Modbus Transmission Control Protocol (TCP) server and monitors up to five returned numeric values.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Modbus TCP Custom Sensor

Sensor in Other Languages

- Dutch: Modbus TCP Custom
- French: Modbus TCP Custom
- German: Modbus TCP Custom
- Japanese: Modbus TCP Custom
- Portuguese: Modbus TCP Custom
- Russian: Modbus TCP Custom
- Simplified Chinese: Modbus TCP Custom
- Spanish: Modbus TCP Custom

Remarks


- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Modbus Channel Specific

Setting	Description
Channel #1 – #5 Name	<p>Enter a meaningful name to identify the channel.</p> <p>Once you have created the sensor, you can change the name of the channel in the Channel Settings under Name.</p>
Channel #1 – #5 Register Type	<p>Enter the type of the register. Choose between:</p> <ul style="list-style-type: none"> ▪ Coil: Coil numbers start with 0 and range from 00001 to 09999. ▪ Discrete input: Discrete input numbers start with 1 and range from 10001 to 19999. ▪ Input register: Input register numbers start with 3 and range from 30001 to 39999. ▪ Holding register: Holding register numbers start with 4 and range from 40001 to 49999. <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Channel #1 – #5 Value Type	<p>This field is only visible if you select Input register or Holding register above. Choose between:</p> <ul style="list-style-type: none"> ▪ 16-bit integer ▪ Unsigned 16-bit integer ▪ 32-bit integer ▪ Unsigned 32-bit integer ▪ 64-bit integer ▪ Float ▪ Double <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Channel #1 – #5 Unit	<p>This field is only visible if you select Input register or Holding register under Channel #x Register Type. Enter a unit for the channel.</p> <p>Once you have created the sensor, you can change the unit of the channel in the Channel Settings under Unit.</p>



Setting	Description
Channel #2 – #5	<p>You can create up to 5 different channels for this sensor. You have to define at least one data channel, so you see all available settings for Channel #1 without manually enabling it. Additionally, you can define Channel #2 to Channel #5. To do so, choose between:</p> <ul style="list-style-type: none"> ▪ Disable (default): The sensor does not create this channel. ▪ Enable: The sensor creates this channel. Specify at least the name, type, and register number for this channel below. <p> You cannot add additional channels after creation.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus sign, and a 'Priority' field with five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p> If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p> This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ modbus
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Modbus TCP Specific

Modbus TCP Specific

Port ⓘ 502

Unit ID ⓘ 1

Byte Order ⓘ

- Big-endian (AB CD)
- Little-endian (DC BA)
- Big-endian byte swap (BA DC)
- Little-endian byte swap (CD AB)

Modbus TCP Specific

Setting	Description
Port	Enter the port for the connection to the Modbus TCP server. The default port is 502.
Unit ID	Enter the Modbus unit ID that you want to monitor.

Setting	Description
	<p>i In a standard Modbus network, there are up to 255 unit IDs, each with a unique assigned identifier from 1 to 255.</p>
Byte Order	<p>Select the sequence of the transmitted information. Choose between:</p> <ul style="list-style-type: none"> ▪ Big-endian (AB CD) ▪ Little-endian (DC BA) ▪ Big-endian byte swap (BA DC) ▪ Little-endian byte swap (CD AB)

Modbus Channel Specific

Modbus Channel Specific

Channel #1 Register Type **i** *Input register*

Channel #1 Register Number **i** 1

Channel #1 Value Type **i** *16-bit integer*

Modbus Channel Specific

Setting	Description
Channel #1 – #5 Register Type	<p>Shows the register type of the channel value.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Channel #1 – #5 Register Number	<p>Enter the register number from which you want to retrieve information.</p> <p>i The Register Number must be a number that contains one to five digits. The sensor supports numbers between 0 and 65534.</p>
Channel #1 – #5 Value Type	<p>Shows the Value Type of the Register Number. This field is only visible if you select Input register or Holding register under Channel #x Register Type.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Debug Options

Debug Options


Result Handling ⓘ Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result.

Setting	Description
	<ul style="list-style-type: none"> ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click  to interrupt the [inheritance](#).

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour

Setting	Description
	<ul style="list-style-type: none"> ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
[Value]	The numeric values returned by a Modbus TCP server in up to five channels

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

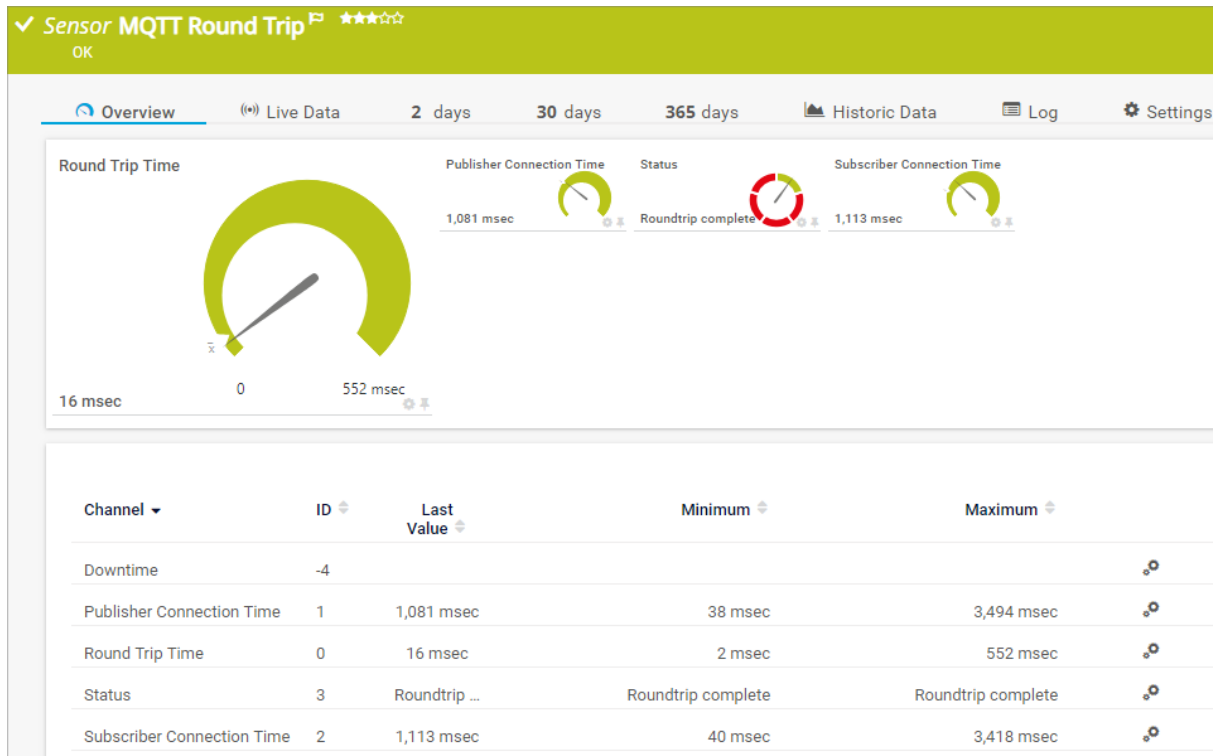
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.91 MQTT Round Trip Sensor

The MQTT Round Trip sensor monitors the availability of a Message Queue Telemetry Transport (MQTT) broker (server), connects to the broker as a publishing and subscribing client, and sends the data packets using a predefined topic.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



MQTT Round Trip Sensor

Sensor in Other Languages

- Dutch: MQTT Round Trip
- French: MQTT Round Trip
- German: MQTT Round Trip
- Japanese: MQTT Round Trip
- Portuguese: MQTT Round Trip
- Russian: MQTT Round Trip
- Simplified Chinese: MQTT Round Trip
- Spanish: MQTT Round Trip

Remarks

- This sensor requires MQTT credentials in the [settings of the parent device](#).
- This sensor supports the IPv6 protocol.

- This sensor has a low performance impact.
- This sensor was converted to a new framework. MQTT Round Trip sensors that were added before PRTG 20.2.59 do not work anymore. We recommend that you pause existing sensors to keep their historic data. To continue monitoring, please add a new MQTT Round Trip sensor.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A text input field containing "exampletag" with a blue 'x' icon to the right and a plus sign icon to the left of the input area.
- Priority:** A section with five star icons, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ mqtt ▪ roundtrip ▪ mqttroundtrip
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

MQTT Specific

MQTT Specific

Topic **i** PRTG/roundtrip/%sensorid

Connection Settings **i**

Use default settings (default)
 Use custom settings

MQTT Specific

Setting	Description
Topic	<p>Enter the topic for the round trip. The default is PRTG/roundtrip/%sensorid.</p> <p>i PRTG replaces %sensorid with the sensor's ID.</p>
Connection Settings	<p>Define the connection settings for the connection to the MQTT broker:</p> <ul style="list-style-type: none"> ▪ Use default settings (default): Use the default connection settings. ▪ Use custom settings: Use a ClientID that you can specify below.
ClientID	<p>This setting is only visible if you select Use custom settings above. Enter the ClientID for the connection to the MQTT broker. The default is PRTG_%sensorid.</p>

Setting	Description
	<p>i PRTG replaces %sensorid with the sensor's ID. For the subscribing client, PRTG automatically adds _subscriber to the ClientID. For the publishing client, PRTG automatically adds _publisher to the ClientID.</p>
Port	<p>Enter the port for the connection to the MQTT broker. The default port for secure connections is 8883 and the default port for unsecure connections is 1883.</p>

Sensor Display

Sensor Display

Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Debug Options

Debug Options

Result Handling ⓘ


Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].



Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

 inherit from  Root

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails.

Setting	Description
	<p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None



Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00)



Setting	Description
	<ul style="list-style-type: none"> ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>


Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

 inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management^[155].</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#)^[142].

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Publisher Connection Time	The time it takes the publisher to connect in milliseconds (msec)
Round Trip Time	<p>The round-trip time (RTT) of the message (after both publisher and subscriber connect) in msec</p> <p>i This channel is the primary channel by default.</p>
Status	<p>The status of the round trip</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Roundtrip Complete ▪ Down status: Message Not Received, Message Not Sent, Publisher Could Not Connect, Subscriber Could Not Connect
Subscribe Connection Time	The time it takes the subscriber to connect in msec

More

■ KNOWLEDGE BASE





Part 7: Device and Sensor Setup | 8 Sensor Settings
91 MQTT Round Trip Sensor

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

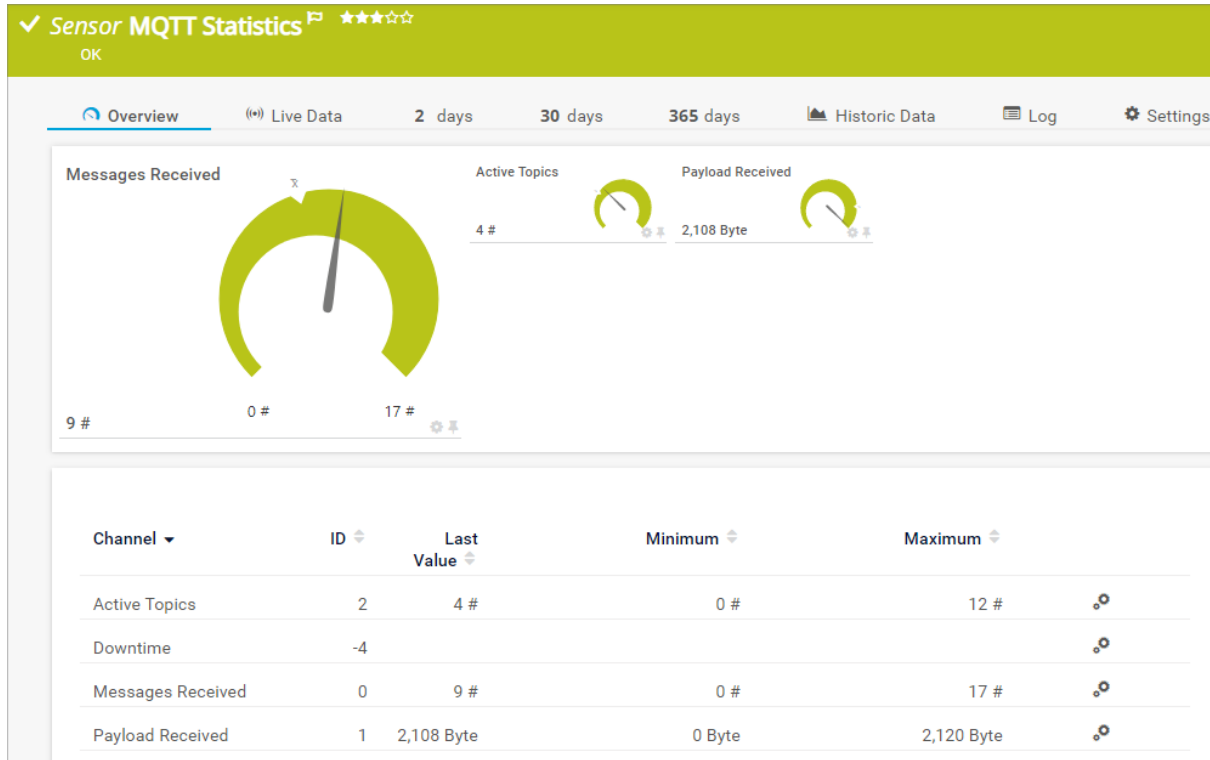
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.92 MQTT Statistics Sensor

The MQTT Statistics sensor monitors a Message Queue Telemetry Transport (MQTT) topic.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



MQTT Statistics Sensor

Sensor in Other Languages

- Dutch: MQTT Statistics
- French: MQTT Statistics
- German: MQTT Statistics
- Japanese: MQTT Statistics
- Portuguese: MQTT Statistics
- Russian: MQTT Statistics
- Simplified Chinese: MQTT Statistics
- Spanish: MQTT Statistics

Remarks

- This sensor requires MQTT credentials in the [settings of the parent device](#).
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has a title bar 'Basic Sensor Settings'. Below the title bar, there are three rows of settings:

- Sensor Name**: Labeled 'Example Name'.
- Tags**: A text input field containing 'exampletag' with a close button (X) and a plus button (+).
- Priority**: A star rating system showing 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ mqtt ▪ mqttstatistics
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

MQTT Specific

MQTT Specific Topic ⓘ PRTG/roundtrip/%sensorid

MQTT Specific

Setting	Description
Topic	Enter the topic that you want to monitor. i The sensor supports single-level (+) and multi-level (#) wildcards.


Sensor Display

Sensor Display Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. i You can set a different primary channel later by clicking ⚙ below a channel gauge on the sensor's Overview tab.

Setting	Description
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[3977]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Debug Options



Debug Options

Result Handling 


Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None


Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays


Setting	Description
	<ul style="list-style-type: none"> ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency.


Setting	Description
	<ul style="list-style-type: none"> Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies [4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector [251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 


Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Active Topics	The number of active MQTT topics
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Messages Received	<p>The number of messages received since the last scan</p> <p> This channel is the primary channel by default.</p>
Payload Received	The payload received in bytes

More

KNOWLEDGE BASE




What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

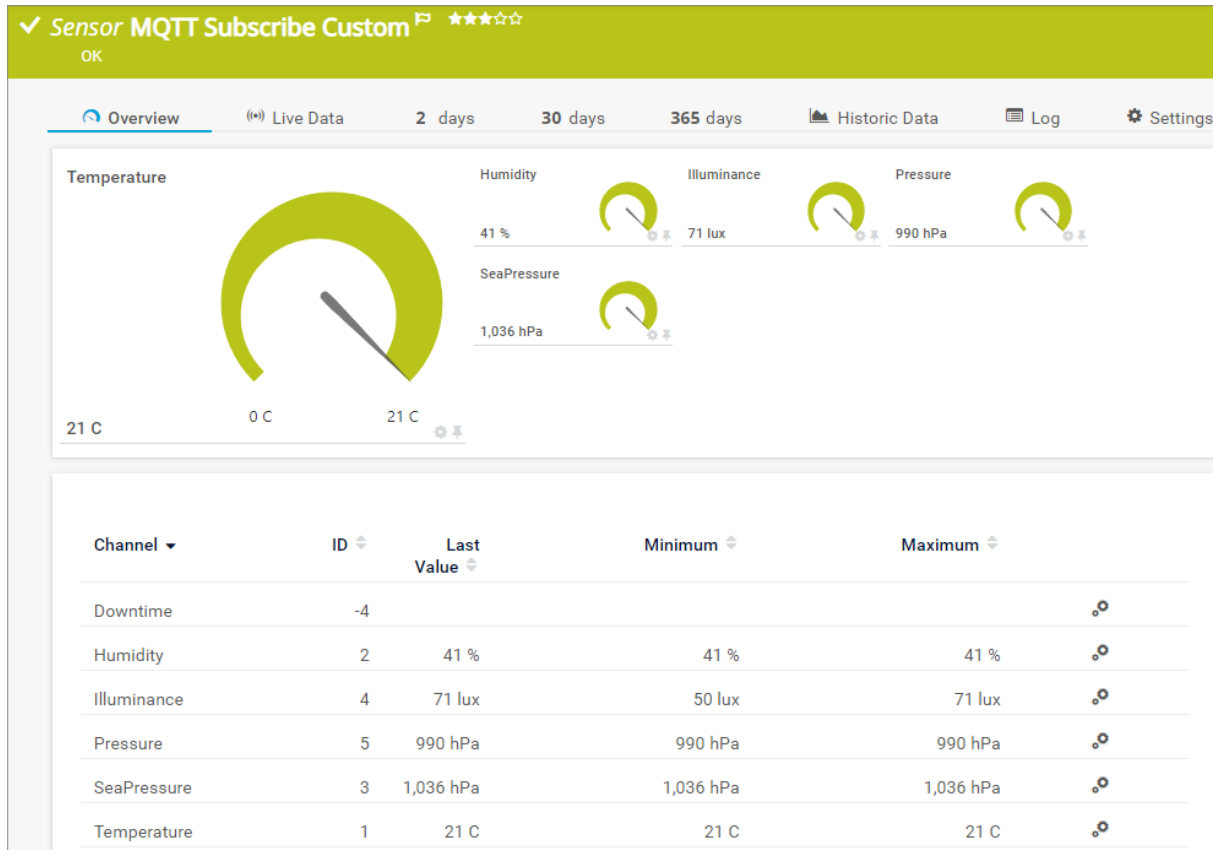
- [List of Available Sensor Types](#) 

- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.93 MQTT Subscribe Custom Sensor

The MQTT Subscribe Custom sensor subscribes to a Message Queue Telemetry Transport (MQTT) topic and monitors up to five numeric values from the received JavaScript Object Notation (JSON) data.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



MQTT Subscribe Custom Sensor

Sensor in Other Languages

- Dutch: MQTT Subscribe Custom
- French: MQTT Subscribe Custom
- German: MQTT Subscribe Custom
- Japanese: MQTT Subscribe Custom
- Portuguese: MQTT Subscribe Custom
- Russian: MQTT Subscribe Custom
- Simplified Chinese: MQTT Subscribe Custom
- Spanish: MQTT Subscribe Custom

Remarks

- This sensor requires MQTT credentials in the [settings of the parent device](#).

- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

MQTT Specific

Setting	Description
Channel #1 Name	<p>Enter a meaningful name to identify the channel.</p> <p>Once you have created the sensor, you can change the name of the channel in the Channel Settings under Name.</p>
Channel #1 Unit	<p>Enter the unit for the numeric value that this sensor monitors.</p> <p>Once you have created the sensor, you can change the unit in the Channel Settings under Unit.</p>
Channel #2 – #5	<p>You can create up to 5 different channels for this sensor. You have to define at least one data channel, so you see all available settings for Channel #1 without manually enabling it. Additionally, you can define Channel #2 up to Channel #5. To do so, choose between:</p> <ul style="list-style-type: none"> ▪ Disable (default): The sensor does not create this channel. ▪ Enable: The sensor creates this channel. Specify name, unit, and JSONPath for this channel below. <p>i You can add additional channels after creation in the sensor's Settings tab.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ ⊕

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ mqtt ▪ mqttsubscribecustom
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

MQTT Specific

MQTT Specific

Topic ⓘ

Channel #1 JSONPath ⓘ

Channel #2 ⓘ Disable (default)
 Enable

MQTT Specific

Setting	Description
Topic	<p>Enter the topic that you want to monitor.</p> <p>ⓘ The sensor supports single-level (+) and multi-level (#) wildcards.</p>
Sensor Message JSONPath	<p>Optionally enter the path to the value in the JSON data that the sensor shows as sensor message.</p> <p>ⓘ The data must be in valid JSON format. For details about the format, see section Channel #x JSONPath.</p> <p>ⓘ The sensor only shows the received string if the sensor is in the Up status. If the sensor changes to the Down status, the sensor message shows the error message instead.</p>
Channel #x JSONPath	<p>Enter the path to the numeric value in the received JSON structure that you want to monitor.</p> <p>ⓘ The data must be in valid JSON format, for example like this:</p> <pre style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;">{ "Sensor1": { "Temp": 25, "Unit": "°C" }, "Sensor2": { "Humidity": 36, "Unit": "%" } }</pre> <p>To query temperature, enter the following JSONPath:</p> <pre style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;">\$.Sensor1.Temp</pre> <p>To query humidity, enter the following JSONPath:</p> <pre style="background-color: #f0f0f0; padding: 5px; border: 1px solid #ccc;">\$.Sensor2.Humidity</pre>
Channel #2 – #5	<p>This setting shows the option you selected for this channel in the Add Sensor dialog, Enable or Disable (default).</p>

Setting	Description
	<p>If you created this channel, you can define the settings of this channel as described above.</p> <p>You can select Disable (default) if you no longer need the according channels. You can still see the channels, but they do not receive data anymore.</p>
Port	<p>Enter the port for the connection to the MQTT broker. The default port for secure connections is 8883 and the default port for unsecure connections is 1883.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Debug Options

Debug Options

Result Handling ⓘ


Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].



Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

 inherit from  Root

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails.

Setting	Description
	<p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None



Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>


Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].


Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

-  Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	The numeric values from the received JSON data in up to five channels

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

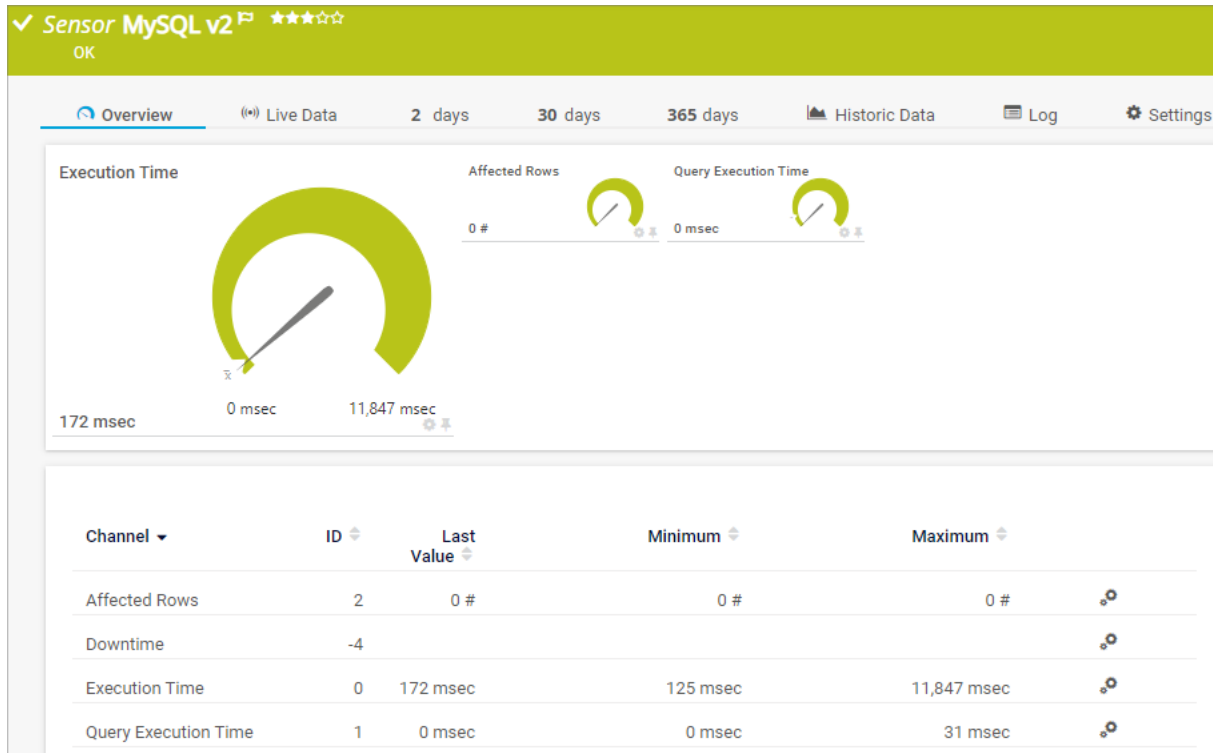
- [List of Available Sensor Types](#) 
- [Additional Sensor Types \(Custom Sensors\)](#) 
- [Channel Settings](#) 
- [Notification Triggers Settings](#) 

7.8.94 MySQL v2 Sensor

The MySQL v2 sensor monitors a database on a MySQL server and executes a query.

i The sensor can also process the data table and show the values that you define in individual channels.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



MySQL v2 Sensor

Sensor in Other Languages

- Dutch: MySQL v2
- French: MySQL v2
- German: MySQL v2
- Japanese: MySQL v2
- Portuguese: MySQL v2
- Russian: MySQL v2
- Simplified Chinese: MySQL v2
- Spanish: MySQL v2



Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.

- You must store your Structured Query Language (SQL) query in a file on the probe system. In a cluster, copy the file to every cluster node.
- This sensor requires .NET 4.7.2 or later on the probe system.
- Define credentials, custom port (if required), and timeout in the [credentials for database management systems](#) settings of the parent device, or in the settings of a group or probe above.
- This sensor supports MySQL server versions as of 5.7.
- This sensor supports the IPv6 protocol.
- See section [Monitoring Databases](#) for an [example](#) for channel value selection.
- See the Knowledge Base: [How to set up the SQL v2 sensors in PRTG? Is there a guide?](#)
- See the Knowledge Base: [How can I monitor strings from an SQL database and show a sensor status depending on it?](#)
- See the Knowledge Base: [How can I monitor error tables in SQL databases?](#)
- See the Knowledge Base: [Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Data

Setting	Description
SQL Query File	<p>Select the SQL query file that includes a valid SQL statement that the sensor executes on the server with every scanning interval. The list contains SQL scripts from the \Custom Sensors\sql subfolder of the PRTG program directory on the probe system. Store your script there. If you use the script on a cluster probe, you must store the script on all cluster nodes.</p> <p>A correct expression in the file could be: <code>SELECT AVG(UnitPrice) FROM Products</code>. If you want to use transactions, separate the individual steps with semicolons ";".</p> <ul style="list-style-type: none"> i Note that with each request, PRTG transfers the full result set, so use filters and limits in your query. i The demo script Demo Serveruptime.sql is available by default. You can use the it to monitor the uptime of the target server. ■ See also the Knowledge Base: Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?
Data Processing	<p>Define whether the sensor processes data from the database:</p> <ul style="list-style-type: none"> ■ Only execute query: Only show information about the number of affected rows and the execution time of the query. Affected rows are rows that were changed by the query (for example, created, deleted, or edited). ■ Count table rows: Execute a <code>SELECT</code> statement and monitor how many rows of the data table this statement returns. ■ Process data table: Read and analyze the data table. If you select this option, the sensor counts rows with <code>SELECT</code> statements as well.
Channel #2 – #10	<p>This setting is only visible if you select Process data table above. You can define up to 10 additional channels for the data processing of this sensor. You have to define at least one data channel if you process the data table, so you automatically see all available settings for Channel #1. Specify how to handle all other possible channels:</p> <ul style="list-style-type: none"> ■ Disable: Do not create this channel. ■ Enable: Create this channel. i It is not possible to enable or disable channels after sensor creation.
Channel #x Name	<p>This setting is only visible if you select Process data table above. Enter a unique name for the channel. Enter a string. PRTG dynamically generates channels with this name as the identifier.</p> <ul style="list-style-type: none"> i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?

Setting	Description
Channel #x Mode	<p>This setting is only visible if you select Process data table above. Define how to display the determined value in the channel:</p> <ul style="list-style-type: none"> ▪ Absolute (recommended): Show the value as the sensor retrieves it from the data table. ▪ Difference: The sensor calculates and shows the difference between the last and the current value returned from the data table. <ul style="list-style-type: none"> ❗ This mode is not compatible with the unit Lookup. ❗ This mode only works if the difference between the last and the current value is positive and increases with each scanning interval. This mode does not support negative and decreasing values.
Channel #x Unit	<p>This setting is only visible if you select Process data table above. Define the unit of the channel value:</p> <ul style="list-style-type: none"> ▪ BytesBandwidth ▪ BytesMemory ▪ BytesDisk ▪ Temperature ▪ Percent ▪ TimeResponse ▪ TimeSeconds ▪ TimeHours ▪ Count ▪ CPU ▪ BytesFile ▪ SpeedDisk ▪ SpeedNet ▪ Custom ▪ Lookup <p>■ For more information about the available units, see section Custom Sensors.</p> <p>❗ To use lookups with this channel, select Lookup and define the lookup file in Channel #x Lookup. Do not use Custom if you use lookups with this sensor.</p> <p>❗ It is not possible to use the unit Lookup in combination with the Difference mode. You are not able to create the sensor in this case.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sqlsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Database Specific

Database Specific

Database ⓘ

SSL Mode ⓘ None
 Preferred (default)
 Required

Database Specific

Setting	Description
Database	<p>Enter the name of the MySQL database to which the sensor connects, for example, MyDatabase. This is a logical entity on the database server where database objects exist.</p> <p>The database name of a MySQL server also reflects a physical directory structure where your database objects are stored. Enter the appropriate string, which is the same as you would supply when you invoke the mysql.exe admin tool (with the command-line switch <code>-p</code>) or after the login with mysql.exe with the command <code>use</code>.</p>
SSL Mode	<p>Select the MySQL Secure Sockets Layer (SSL) mode for the connection:</p> <ul style="list-style-type: none"> ▪ None: Do not use SSL. ▪ Preferred (default): Use SSL if the server supports it. ▪ Required: Always use SSL and deny the connection if the server does not support it. Do not perform a server certificate validation. <p>The SSL mode options that you can choose are the same as the values of the MySQL <code>sslmode</code> parameter. PRTG sends it with the sensor requests.</p> <p>i For details about the MySQL SSL modes, refer to the MySQL documentation.</p>

Data

Data

SQL Query File ⓘ *Demo Serveruptime.sql*

Input Parameter Handling ⓘ Do not use input parameter (default)
 Use input parameter

Transaction Handling ⓘ Do not use transaction (default)
 Use transaction and always roll back
 Use transaction and commit on success

Data Processing ⓘ *Only execute query*


Result Handling ⓘ Discard result
 Store result

Data

Setting	Description
SQL Query File	Shows the SQL script file that the sensor executes on the server. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Input Parameter Handling	Define if you want to pass a parameter to the SQL query file: <ul style="list-style-type: none"> ▪ Do not use input parameter (default): Execute the SQL query file without using variables. ▪ Use input parameter: Execute an SQL query file that contains a variable. Provide the parameter that you want to use in the query below.
Input Parameter	This setting is only visible if you select Input Parameter Handling above. Enter the parameter that you want to pass to the SQL query file. This parameter replaces the variables <code>@prtg</code> , <code>:prtg</code> , or <code>?</code> in the SQL query, considering the general rules for SQL variables. You can also use PRTG placeholders for custom sensors (command-line parameters) as input parameters, for example, <code>%sensorid</code> or <code>%deviceid</code> . For details, see section Custom Sensors [444]. ⓘ Provide strings as they are and do not surround them with quotation marks. PRTG automatically and correctly inserts string parameters into the query.
Transaction Handling	Define if you want to use transactions and if they affect the database content: <ul style="list-style-type: none"> ▪ Do not use transaction (default): Do not execute transactions.

Setting	Description
Data Processing	<ul style="list-style-type: none"> ▪ Use transaction and always roll back: The query does not change data in the database. In the SQL query file, separate the single steps of the transaction with semicolons. ▪ Use transaction and commit on success: The query changes data in the database. The changes only apply if all execution steps succeed without any errors. In the SQL query file, separate the single steps of the transaction with semicolons. <p>Shows how the sensor processes data from the database.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Handle DBNull in Channel Values as	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define the sensor behavior if the query returns DBNull:</p> <ul style="list-style-type: none"> ▪ Error: Show a Down status if the query returns DBNull. ▪ Number 0: Recognize the result DBNull as a valid value and interpret it as the number 0.
Select Channel Value by	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define how to select the desired cell in the database table:</p> <ul style="list-style-type: none"> ▪ Column number: Determine the channel value by using the value in row 0 of the column whose number you specify in Channel #x Column Number. ▪ Column name: Determine the channel value by using the value in row 0 of the column whose name you specify in Channel #x Column Name. ▪ Row number: Determine the channel value by using the value in column 0 of the row whose number you specify in Channel #x Row Number. ▪ Key value pair: Determine the channel value by searching in column 0 for the key you specify in Channel #x Key and by returning the value in column 1 of the same row where the key value was found. <p>i Defining how the desired cell in the database table is selected is necessary to configure the cells that are used in the channels.</p> <p>i The option you select here also defines the method of how to optionally determine a value for the sensor message. For details, see setting Use Data Table Value in Sensor Message.</p> <p>■ For an example for channel value selection, see section Monitoring Databases ⁴³²⁵.</p>
Channel #x	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. The setting shows if the channel is disabled.</p>

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Channel #x Name	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Enter a unique name for the channel. Enter a string. The sensor dynamically generates channels with this name as identifier.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Channel #x Column Number	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Column number for the setting Select Channel Value by. Provide the number of the column to use to determine the channel value in row 0. Enter an integer value.</p>
Channel #x Column Name	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Column name for the setting Select Channel Value by. Provide the name of the column to use to determine the channel value in row 0. Enter an integer value.</p>
Channel #x Row Number	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Row number for the setting Select Channel Value by. Provide the number of the column to use to determine the channel value in row 0. Enter an integer value.</p>
Channel #x Key	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Key value pair for the setting Select Channel Value by. Provide the key to search for in column 0 of the data table. The value in column 1 of the same row where the key value was found to use to determine the channel value. Enter a string.</p>
Channel #x Mode	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. The setting shows how you want to display the determined value in the channel.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Channel #x Unit	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define the unit of the channel value:</p> <ul style="list-style-type: none"> ▪ BytesBandwidth ▪ BytesMemory ▪ BytesDisk

Setting	Description
	<ul style="list-style-type: none"> ▪ Temperature ▪ Percent ▪ TimeResponse ▪ TimeSeconds ▪ TimeHours ▪ Count ▪ CPU ▪ BytesFile ▪ SpeedDisk ▪ SpeedNet ▪ Custom ▪ Lookup
Channel #x Custom Unit	This setting is only visible if you select the channel unit Custom above. Define a unit for the channel value. Enter a string.
Channel #x Lookup	This setting is only visible if you select the channel unit Lookup above. Select a lookup file that you want to use with this channel.
Use Data Table Value in Sensor Message	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define if the sensor message shows a value from the data table:</p> <ul style="list-style-type: none"> ▪ Disable: Do not use a custom sensor message. ▪ Enable: Define a custom sensor message with a defined value of the data table. Define the value selection below. <p>The method of how to determine a value for the sensor message is defined in the setting Select Channel Value by above.</p>
Sensor Message Column Number	This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Column number for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the number of a column. The sensor message shows the value in row 0 of this column. Enter an integer value.
Sensor Message Column Name	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Column name for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the name of a column. The sensor message shows the value in row 0 of this column. Enter a string.</p> <p> Columns start with index 0.</p>

Setting	Description
Sensor Message Row Number	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Row number for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the name of a column. The sensor message shows the value in row 0 of this column. Enter the number of a row. The sensor message shows the value in column 0 of this row. Enter an integer value.</p> <p>i Rows start with index 0.</p>
Sensor Message Key	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Key value pair for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter a key to search for in column 0 of the data table. The sensor message shows the value in column 1 of the row where the key was found. Enter a string.</p>
Sensor Message	<p>This setting is only visible if you enable Use Data Table Value in Sensor Message. Define the sensor message. Enter a string. Use the placeholder {0} at the position where you want to display the value.</p> <p>Example: The message is {0}</p> <p>i The number sign (#) is not supported in sensor messages. If a message contains a number sign, the message is clipped at this point.</p>
If Sensor Message Changes	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation.</p> <p>Define what the sensor does when the sensor message changes:</p> <ul style="list-style-type: none"> Ignore changes (default): Take no action on change. Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁶, you can use this mechanism to trigger a notification³³⁶⁷ whenever the sensor value changes.
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Affected Rows	The number of rows that were addressed by the query (including SELECT statements if you process data tables)
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Execution Time	<p>The execution time of the entire request (including connection buildup, query execution, transaction handling, disconnection) in milliseconds (msec)</p> <p>i This channel is the primary channel by default.</p>
Query Execution Time	The execution time of the specified query in msec

More

■ KNOWLEDGE BASE

How to set up the SQL v2 sensors in PRTG? Is there a guide?

- <https://kb.paessler.com/en/topic/70618>

How can I monitor strings from an SQL database and show a sensor status depending on it?

- <https://kb.paessler.com/en/topic/63259>

How can I monitor error tables in SQL databases?

- <https://kb.paessler.com/en/topic/70774>

Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?

- <https://kb.paessler.com/en/topic/75372>

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.95 NetApp Aggregate Sensor

The NetApp Aggregate sensor monitors the status of a NetApp cDOT or ONTAP storage aggregate accessing the application programming interface (API) via the Simple Object Access Protocol (SOAP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



NetApp Aggregate Sensor



Sensor in Other Languages

- Dutch: NetApp Aggregate
- French: Agrégat NetApp
- German: NetApp Aggregat
- Japanese: NetApp の合計
- Portuguese: NetApp Aggregate
- Russian: NetApp
- Simplified Chinese: NetApp 聚合
- Spanish: Agregado de NetApp

Remarks

- This sensor requires .NET 4.7.2 or later on the probe system.
- The ONTAPI user account that you use with this sensor needs [access](#) to the DATA ONTAP API (ONTAPI) so that the sensor can request data from it. The access is enabled by default.
- For this sensor, read-only user rights are sufficient for the ONTAPI user account that you use to access ONTAPI. Modify or add this user with a suitable role in the console under Cluster | ClusterX | Configuration | Security | Users
- This sensor supersedes the deprecated NetApp cDOT Aggregate (SOAP) sensor.
- This sensor supports NetApp cDOT as of version 8.3 and NetApp ONTAP as of version 9.0.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- You can define NetApp API credentials (User Name and Password) in the [credentials for Windows systems](#) settings of the parent device. This way, you do not have to individually enter credentials for each NetApp sensor that you add to the same device.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Enabled ONTAPI access	<p>NetApp sensors require access to ONTAPI for the utilized user account. This is enabled by default. If access is disabled, locally use the following command on the cluster console to enable ONTAPI access for the user:</p> <pre>services web> modify -vserver clusterd -name ontapi -enabled true</pre>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG performs a meta-scan before you can add this sensor and requires basic information in advance. Provide the required information in the dialog box that appears. PRTG then recognizes all items that are available for monitoring based on your input.

Working...
✕

NetApp Connection

NetApp Credentials ⓘ

Use explicit credentials
 Use Windows credentials from parent device

User Name ⓘ

This field is required.

Password ⓘ

This field is required.

Port ⓘ

443

Connection Security ⓘ

HTTP
 HTTPS

Timeout (Sec.) ⓘ

60

NetApp Connection

NetApp Connection

Setting	Description
NetApp Credentials	Specify which credentials you want to use to connect to the NetApp API: <ul style="list-style-type: none"> ▪ Use explicit credentials: Use individual NetApp API credentials.

Setting	Description
	<ul style="list-style-type: none"> Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings ¹⁶⁹² in section Credentials for Windows Systems. <ul style="list-style-type: none"> i Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.
User Name	<p>This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string.</p> <ul style="list-style-type: none"> i Read-only rights for this ONTAP user account are sufficient.
Password	<p>This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.</p>
Port	<p>Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.</p>
Connection Security	<p>Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured:</p> <ul style="list-style-type: none"> HTTP: Use an unsecured HTTP connection. HTTPS: Use a secure connection to the defined port to send the query.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <ul style="list-style-type: none"> i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message. <p>Click OK to define the sensor settings ¹⁶⁹⁷.</p>

NetApp Specific

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Setting	Description
Aggregates	<p>Select the aggregates that you want to monitor. PRTG creates one sensor for each aggregate that you select.</p> <ul style="list-style-type: none"> i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ netapp ▪ cdot ▪ ontap ▪ soap

Setting	Description
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

NetApp Connection

NetApp Connection

NetApp Credentials **i** Use explicit credentials
 Use Windows credentials from parent device

Port **i** 443

Connection Security **i** HTTP
 HTTPS

Timeout (Sec.) **i** 60

NetApp Connection

Setting	Description
NetApp Credentials	Specify which credentials you want to use to connect to the NetApp API: <ul style="list-style-type: none"> Use explicit credentials: Use individual NetApp API credentials. Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings [452] in section Credentials for Windows Systems. <p>i Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.</p>
User Name	This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string. <p>i Read-only rights for this ONTAP user account are sufficient.</p>
Password	This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.

Setting	Description
Port	Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.
Connection Security	Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured: <ul style="list-style-type: none"> ▪ HTTP: Use an unsecured HTTP connection. ▪ HTTPS: Use a secure connection to the defined port to send the query.
Timeout (Sec.)	Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes). <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

NetApp Specific

NetApp Specific
Aggregates **i** AGGR_00

NetApp Specific

Setting	Description
Aggregates	Shows the identifier of the aggregate that this sensor monitors. <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options
Result Handling **i**

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result.

Setting	Description
	<ul style="list-style-type: none"> Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration^[4187] on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules 4170.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Aggregate State	<p>The status of the aggregate</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: Online ▪ Warning status: Restrict ▪ Down status: Offline, Other Error
Blocks Read	The number of blocks read per second

Channel	Description
Blocks Written	The number of blocks written per second
Bytes Free	The free bytes in total
Bytes Free %	The free bytes in percent  This channel is the primary channel by default.
Data Read	The data read speed in bytes per second
Data Written	The data write speed in bytes per second
Disks #	The number of disks on the aggregate
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Files	The number of files on the aggregate
Latency	The latency in milliseconds (msec)
User Reads	The number of user reads per second
User Writes	The number of user writes per second

More

KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

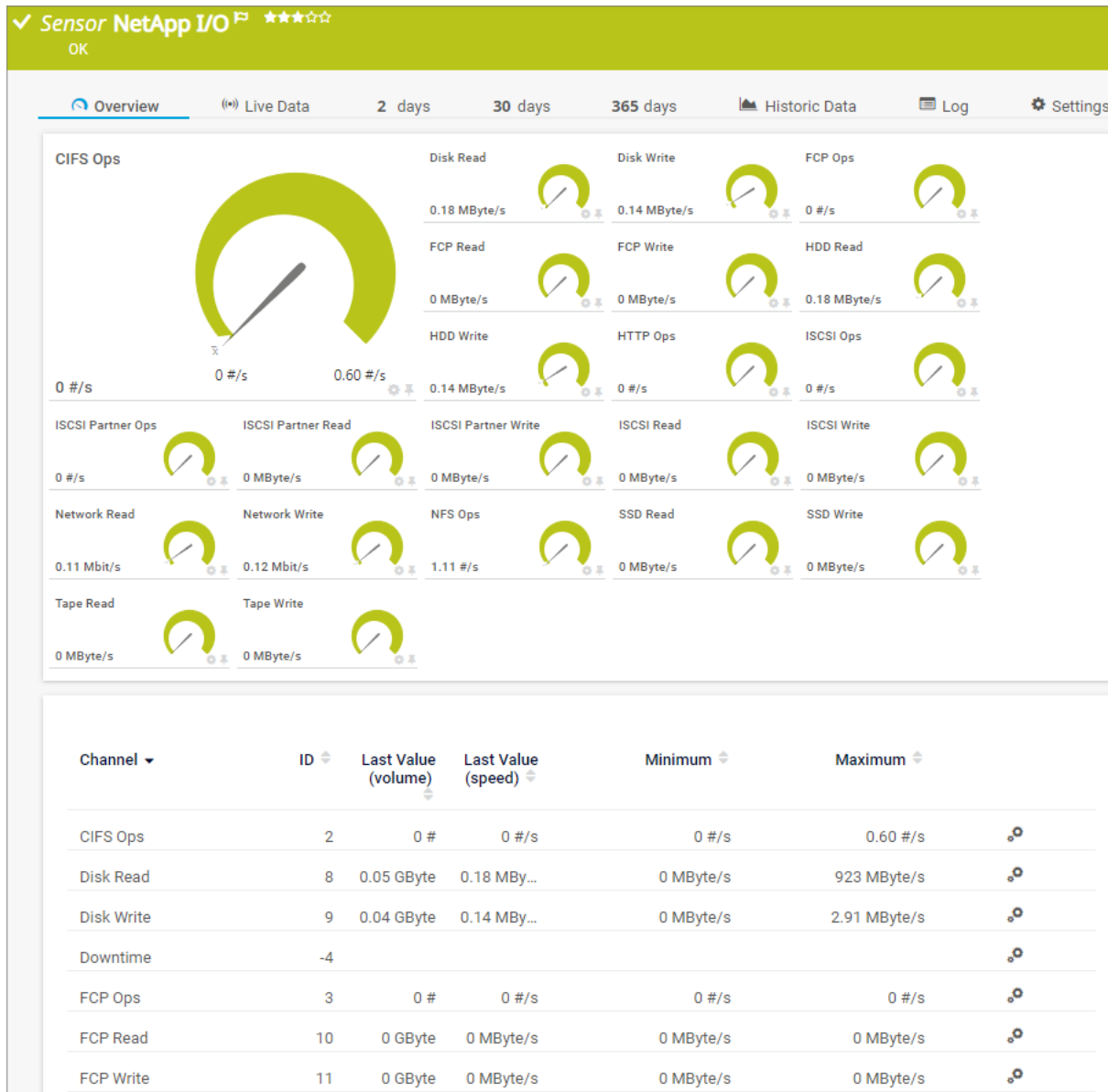
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.96 NetApp I/O Sensor

The NetApp I/O sensor monitors input and output operations of a NetApp cDOT or ONTAP storage system accessing the application programming interface (API) via the Simple Object Access Protocol (SOAP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



NetApp I/O Sensor

Sensor in Other Languages



- Dutch: NetApp I/O
- French: E/S NetApp
- German: NetApp I/O

- Japanese: NetApp I/O
- Portuguese: NetApp E/S
- Russian: - NetApp
- Simplified Chinese: NetApp I/O
- Spanish: E/S de NetApp

Remarks

- This sensor requires .NET 4.7.2 or later on the probe system.
- The ONTAPI user account that you use with this sensor needs [access](#) to the DATA ONTAP API (ONTAPI) so that the sensor can request data from it. The access is enabled by default.
- For this sensor, read-only user rights are sufficient for the ONTAPI user account that you use to access ONTAPI. Modify or add this user with a suitable role in the console under Cluster | ClusterX | Configuration | Security | Users
- This sensor supersedes the deprecated NetApp cDOT I/O (SOAP) sensor.
- This sensor supports NetApp cDOT as of version 8.3 and NetApp ONTAP as of version 9.0.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- You can define NetApp API credentials (User Name and Password) in the [credentials for Windows systems](#) settings of the parent device. This way, you do not have to individually enter credentials for each NetApp sensor that you add to the same device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Enabled ONTAPI access	<p>NetApp sensors require access to ONTAPI for the utilized user account. This is enabled by default. If access is disabled, locally use the following command on the cluster console to enable ONTAPI access for the user:</p> <pre>services web> modify -vserver clusterd -name ontapi -enabled true</pre>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG performs a meta-scan before you can add this sensor and requires basic information in advance. Provide the required information in the dialog box that appears. PRTG then recognizes all items that are available for monitoring based on your input.

Working... [Close]

NetApp Connection

NetApp Credentials ⓘ

Use explicit credentials
 Use Windows credentials from parent device

User Name ⓘ

This field is required.

Password ⓘ

This field is required.

Port ⓘ

443

Connection Security ⓘ

HTTP
 HTTPS

Timeout (Sec.) ⓘ

60

[OK] [Cancel]

NetApp Connection

NetApp Connection

Setting	Description
NetApp Credentials	<p>Specify which credentials you want to use to connect to the NetApp API:</p> <ul style="list-style-type: none"> ▪ Use explicit credentials: Use individual NetApp API credentials. ▪ Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings⁴⁵² in section Credentials for Windows Systems. <p>i Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.</p>
User Name	<p>This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string.</p> <p>i Read-only rights for this ONTAP user account are sufficient.</p>
Password	<p>This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.</p>
Port	<p>Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.</p>
Connection Security	<p>Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured:</p> <ul style="list-style-type: none"> ▪ HTTP: Use an unsecured HTTP connection. ▪ HTTPS: Use a secure connection to the defined port to send the query.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p> <p>Click OK to define the sensor settings¹⁷¹¹.</p>

NetApp Specific

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Setting	Description
System Nodes	<p>Select the system nodes that you want monitor. PRTG creates one sensor for each system node that you select.</p>

Setting	Description
	<p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus icon, and a 'Priority' field with five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[4031], reports^[4069], maps^[4096], libraries^[4047], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ netapp ▪ cdot ▪ ontap ▪ soap
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

NetApp Connection

NetApp Connection

NetApp Credentials ⓘ Use explicit credentials
 Use Windows credentials from parent device

Port ⓘ 443

Connection Security ⓘ HTTP
 HTTPS

Timeout (Sec.) ⓘ 60

NetApp Connection

Setting	Description
NetApp Credentials	<p>Specify which credentials you want to use to connect to the NetApp API:</p> <ul style="list-style-type: none"> ▪ Use explicit credentials: Use individual NetApp API credentials. ▪ Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings [452] in section Credentials for Windows Systems. <p>i Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.</p>

Setting	Description
User Name	<p>This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string.</p> <p>i Read-only rights for this ONTAP user account are sufficient.</p>
Password	<p>This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.</p>
Port	<p>Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.</p>
Connection Security	<p>Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured:</p> <ul style="list-style-type: none"> ▪ HTTP: Use an unsecured HTTP connection. ▪ HTTPS: Use a secure connection to the defined port to send the query.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

NetApp Specific

NetApp Specific System Nodes **i** *mycompany000-01*

NetApp Specific

Setting	Description
System Nodes	<p>Shows the ID of the system node that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options Result Handling **i** Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking ⚙ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[3977]).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ^[142].

Scanning Interval

Click  to interrupt the [inheritance](#) ^[142].

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CIFS Ops	<p>The number of Common Internet File System (CIFS) operations per second</p> <p> This channel is the primary channel by default.</p>
Disk Read	The disk read speed in bytes per second
Disk Write	The disk write speed in bytes per second

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
FCP Ops	The number of Fibre Channel Protocol (FCP) operations per second
FCP Read	The FCP read speed in bytes per second
FCP Write	The FCP write speed in bytes per second
HDD Read	The hard disk drive (HDD) read speed in bytes per second
HDD Write	The HDD write speed in bytes per second
HTTP Ops	The number of HTTP operations per second
ISCSI Ops	The number of Internet Small Computer System Interface (iSCSI) operations per second
ISCSI Partner Ops	The number of iSCSI partner operations per second
ISCSI Partner Read	The iSCSI partner read speed in bytes per second
ISCSI Partner Write	The iSCSI partner write speed in bytes per second
ISCSI Read	The iSCSI read speed in bytes per second
ISCSI Write	The iSCSI write speed in bytes per second
Network Read	The network read speed in bytes per second
Network Write	The network write speed in bytes per second
NFS Ops	The number of network file system (NFS) operations per second
SSD Read	The solid-state drive (SSD) read speed in bytes per second
SSD Write	The SSD write speed in bytes per second
Tape Read	The tape read speed in bytes per second
Tape Write	The tape write speed in bytes per second

More

KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

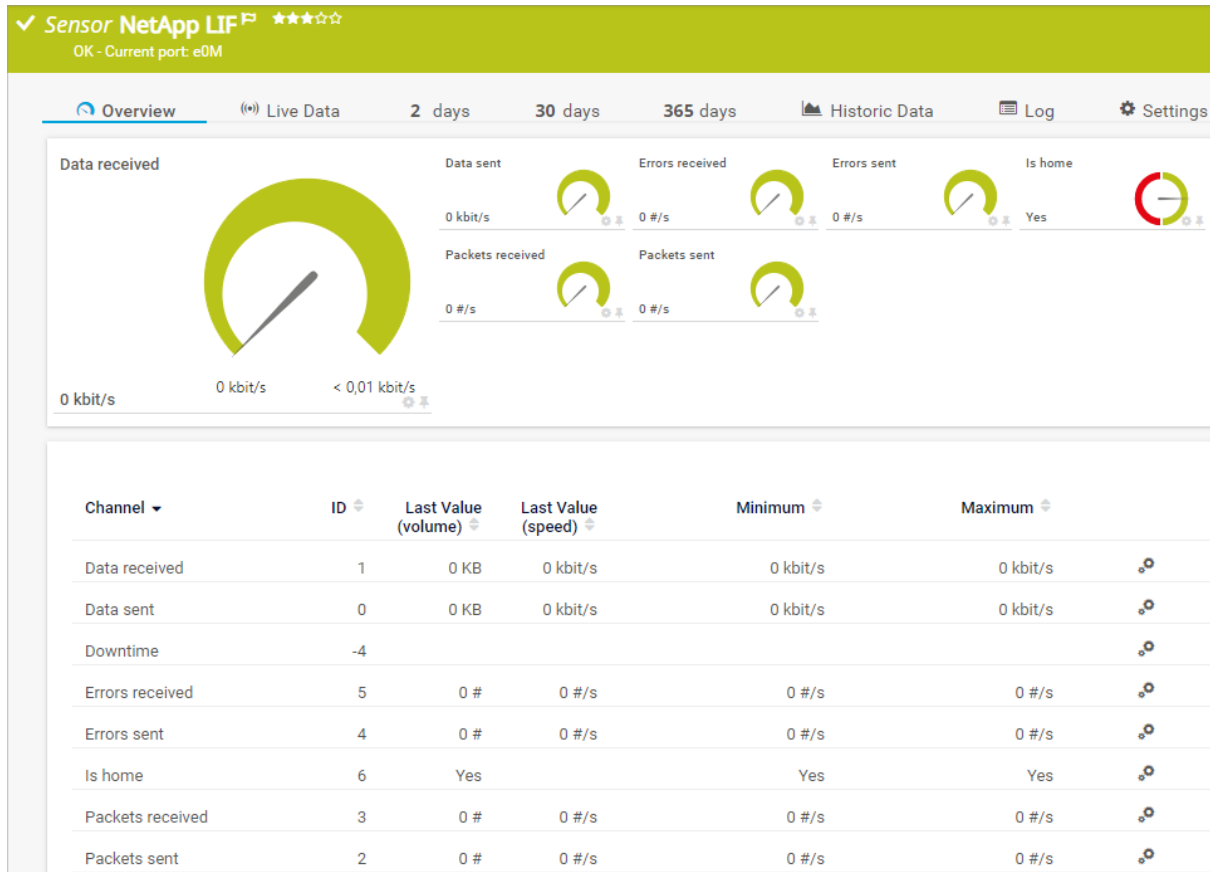
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3967

7.8.97 NetApp LIF Sensor

The NetApp LIF sensor monitors logical interfaces of a NetApp cDOT or ONTAP cluster accessing the application programming interface (API) via the Simple Object Access Protocol (SOAP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



NetApp LIF Sensor

Sensor in Other Languages



- Dutch: NetApp LIF
- French: LIF NetApp
- German: NetApp LIF
- Japanese: NetApp LIF
- Portuguese: NetApp LIF
- Russian: LIF NetApp
- Simplified Chinese: NetApp LIF
- Spanish: LIF de NetApp

Remarks

- This sensor requires .NET 4.7.2 or later on the probe system.

- The ONTAPI user account that you use with this sensor needs [access](#) to the DATA ONTAP API (ONTAPI) so that the sensor can request data from it. The access is enabled by default.
- For this sensor, read-only user rights are sufficient for the ONTAPI user account that you use to access ONTAPI. Modify or add this user with a suitable role in the console under Cluster | ClusterX | Configuration | Security | Users
- This sensor supports NetApp cDOT as of version 8.3 and NetApp ONTAP as of version 9.0.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- You can define NetApp API credentials (User Name and Password) in the [credentials for Windows systems](#) settings of the parent device. This way, you do not have to individually enter credentials for each NetApp sensor that you add to the same device.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Enabled ONTAPI access	<p>NetApp sensors require access to ONTAPI for the utilized user account. This is enabled by default. If access is disabled, locally use the following command on the cluster console to enable ONTAPI access for the user:</p> <pre>services web> modify -vserver clusterd -name ontapi -enabled true</pre>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG performs a meta-scan before you can add this sensor and requires basic information in advance. Provide the required information in the dialog box that appears. PRTG then recognizes all items that are available for monitoring based on your input.

Working...
✕

NetApp Connection

NetApp Credentials ⓘ

Use explicit credentials

Use Windows credentials from parent device

User Name ⓘ

This field is required.

Password ⓘ

This field is required.

Port ⓘ

443

Connection Security ⓘ

HTTP

HTTPS


Timeout (Sec.) ⓘ

60

NetApp Connection

NetApp Connection

Setting	Description
NetApp Credentials	<p>Specify which credentials you want to use to connect to the NetApp API:</p> <ul style="list-style-type: none"> ▪ Use explicit credentials: Use individual NetApp API credentials. ▪ Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings ⁴⁵² in section Credentials for Windows Systems. <p> ⓘ Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.</p>

Setting	Description
User Name	<p>This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string.</p> <p>i Read-only rights for this ONTAP user account are sufficient.</p>
Password	<p>This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.</p>
Port	<p>Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.</p>
Connection Security	<p>Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured:</p> <ul style="list-style-type: none"> ▪ HTTP: Use an unsecured HTTP connection. ▪ HTTPS: Use a secure connection to the defined port to send the query.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p> <p>Click OK to define the sensor settings .</p>

NetApp Specific

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Setting	Description
LIFs	<p>Select the LIFs that you want to monitor. PRTG creates one sensor for each LIF that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag X +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ netapp ▪ cdot ▪ ontap ▪ soap
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★★★★☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

NetApp Connection

NetApp Connection

NetApp Credentials **i** Use explicit credentials
 Use Windows credentials from parent device

Port **i** 443

Connection Security **i** HTTP
 HTTPS

Timeout (Sec.) **i** 60

NetApp Connection

Setting	Description
NetApp Credentials	Specify which credentials you want to use to connect to the NetApp API: <ul style="list-style-type: none"> Use explicit credentials: Use individual NetApp API credentials. Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings [452] in section Credentials for Windows Systems. <ul style="list-style-type: none"> i Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.
User Name	This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string. <ul style="list-style-type: none"> i Read-only rights for this ONTAP user account are sufficient.
Password	This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.
Port	Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.
Connection Security	Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured: <ul style="list-style-type: none"> HTTP: Use an unsecured HTTP connection. HTTPS: Use a secure connection to the defined port to send the query.

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

NetApp Specific

NetApp Specific LIFs **i** *LIF NetApp-Cluster-01*

NetApp Specific

Setting	Description
LIFs	<p>Shows the ID of the LIF that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options Result Handling **i** Discard result
 Store result


Debug Options


Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].Data.txt and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p>

Setting	Description
	<p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>




Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type 
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None ▼




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Data Received	<p>The data received in bytes per second</p> <p>i This channel is the primary channel by default.</p>
Data Sent	The data sent in bytes per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Errors Received	The number of errors received per second
Errors Sent	The number of errors sent per second
Is Home	<p>If the logical interface (LIF) is on the home port</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: Yes ▪ Down status: No

Channel	Description
Packets Received	The number of packets received per second
Packets Sent	The number of packets sent per second

More

KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

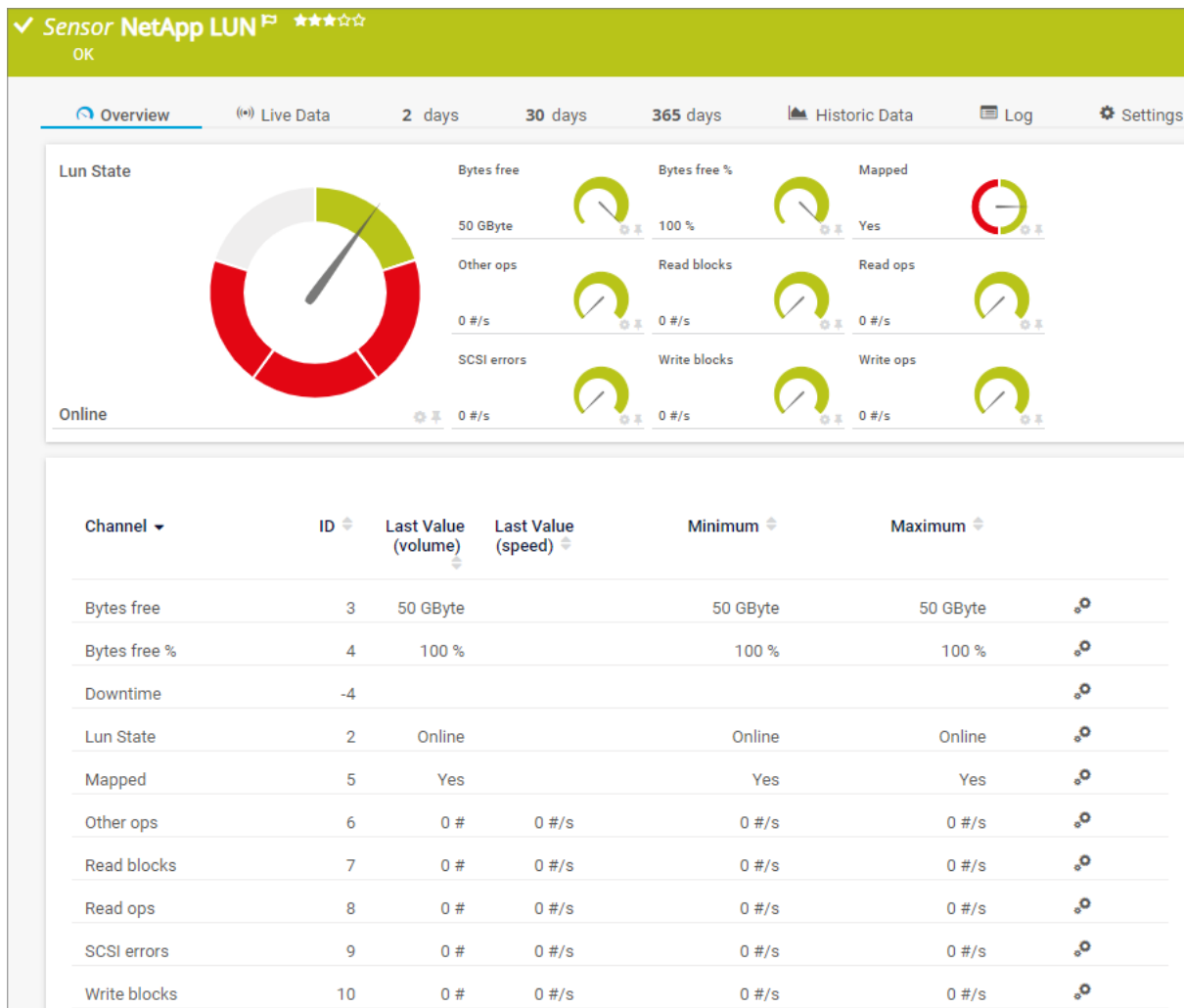
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.98 NetApp LUN Sensor

The NetApp LUN sensor monitors the logical unit number (LUN) of a NetApp cDOT or ONTAP storage system accessing the application programming interface (API) via the Simple Object Access Protocol (SOAP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



NetApp LUN Sensor

Sensor in Other Languages



- Dutch: NetApp LUN
- French: LUN NetApp
- German: NetApp LUN
- Japanese: NetApp LUN
- Portuguese: NetApp LUN
- Russian: LUN NetApp
- Simplified Chinese: NetApp LUN

- Spanish: LUN de NetApp

Remarks

- This sensor requires .NET 4.7.2 or later on the probe system.
- The ONTAPI user account that you use with this sensor needs [access](#) to the DATA ONTAP API (ONTAPI) so that the sensor can request data from it. The access is enabled by default.
- For this sensor, read-only user rights are sufficient for the ONTAPI user account that you use to access ONTAPI. Modify or add this user with a suitable role in the console under Cluster | ClusterX | Configuration | Security | Users
- This sensor supports NetApp cDOT as of version 8.3 and NetApp ONTAP as of version 9.0.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- You can define NetApp API credentials (User Name and Password) in the [credentials for Windows systems](#) settings of the parent device. This way, you do not have to individually enter credentials for each NetApp sensor that you add to the same device.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Enabled ONTAPI access	<p>NetApp sensors require access to ONTAPI for the utilized user account. This is enabled by default. If access is disabled, locally use the following command on the cluster console to enable ONTAPI access for the user:</p> <pre>services web> modify -vserver clusterd -name ontapi -enabled true</pre>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG performs a meta-scan before you can add this sensor and requires basic information in advance. Provide the required information in the dialog box that appears. PRTG then recognizes all items that are available for monitoring based on your input.

Working...
✕

NetApp Connection

NetApp Credentials ⓘ

Use explicit credentials
 Use Windows credentials from parent device

User Name ⓘ

This field is required.

Password ⓘ

This field is required.

Port ⓘ

443

Connection Security ⓘ

HTTP
 HTTPS

Timeout (Sec.) ⓘ

60

OK
Cancel

NetApp Connection

NetApp Connection

Setting	Description
NetApp Credentials	Specify which credentials you want to use to connect to the NetApp API: <ul style="list-style-type: none"> ▪ Use explicit credentials: Use individual NetApp API credentials.

Setting	Description
	<ul style="list-style-type: none"> Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings ⁴⁵² in section Credentials for Windows Systems. <ul style="list-style-type: none"> i Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.
User Name	<p>This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string.</p> <ul style="list-style-type: none"> i Read-only rights for this ONTAP user account are sufficient.
Password	<p>This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.</p>
Port	<p>Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.</p>
Connection Security	<p>Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured:</p> <ul style="list-style-type: none"> HTTP: Use an unsecured HTTP connection. HTTPS: Use a secure connection to the defined port to send the query.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <ul style="list-style-type: none"> i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message. <p>Click OK to define the sensor settings ¹⁷⁴⁰.</p>

NetApp Specific

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Setting	Description
LUNs	<p>Select the logical unit numbers (LUN) that you want to monitor. PRTG creates one sensor for each LUN that you select.</p> <ul style="list-style-type: none"> i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ netapp ▪ cdot ▪ ontap ▪ soap

Setting	Description
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

NetApp Connection

NetApp Connection

NetApp Credentials ⓘ Use explicit credentials
 Use Windows credentials from parent device

Port ⓘ 443

Connection Security ⓘ HTTP
 HTTPS

Timeout (Sec.) ⓘ 60

NetApp Connection

Setting	Description
NetApp Credentials	Specify which credentials you want to use to connect to the NetApp API: <ul style="list-style-type: none"> Use explicit credentials: Use individual NetApp API credentials. Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings [452] in section Credentials for Windows Systems. <p>i Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.</p>
User Name	This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string. <p>i Read-only rights for this ONTAP user account are sufficient.</p>
Password	This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.

Setting	Description
Port	Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.
Connection Security	Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured: <ul style="list-style-type: none"> HTTP: Use an unsecured HTTP connection. HTTPS: Use a secure connection to the defined port to send the query.
Timeout (Sec.)	Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes). <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

NetApp Specific

NetApp Specific LUNs **i** `LUN /vol/LUN_vol/LUN`

NetApp Specific

Setting	Description
LUNs	Shows the ID of the LUN that this sensor monitors. <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options Result Handling **i** Discard result
 Store result

Debug Options

Setting	Description
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> Discard result: Do not store the sensor result.

Setting	Description
	<ul style="list-style-type: none"> Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].Data.txt and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display


Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ

Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration^[4187] on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule None ▼

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Bytes Free	The free space in bytes
Bytes Free %	The free bytes in percent
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
LUN State	<p>The status of the LUN</p> <ul style="list-style-type: none"> Up status¹⁹⁷: Online Down status: LUN has been automatically taken offline due to a media error on the associated foreign LUN, LUN has been automatically taken offline due to an NVRAM failure, LUN has been automatically taken offline due to insufficient space Unknown status: LUN is administratively offline or a more detailed offline reason is not available <p> This channel is the primary channel by default.</p>
Mapped	<p>If the LUN is mapped</p> <ul style="list-style-type: none"> Up status: Yes Down status: No
Other Ops	The other operations per second
Read Blocks	The number of read blocks per second
Read Ops	The number of disk read operations per second
SCSI Errors	The number of Small Computer System Interface (SCSI) errors per second
Write Blocks	The number of write blocks per second
Write Ops	The number of disk write operations per second

More

■ KNOWLEDGE BASE

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)⁴⁹⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²

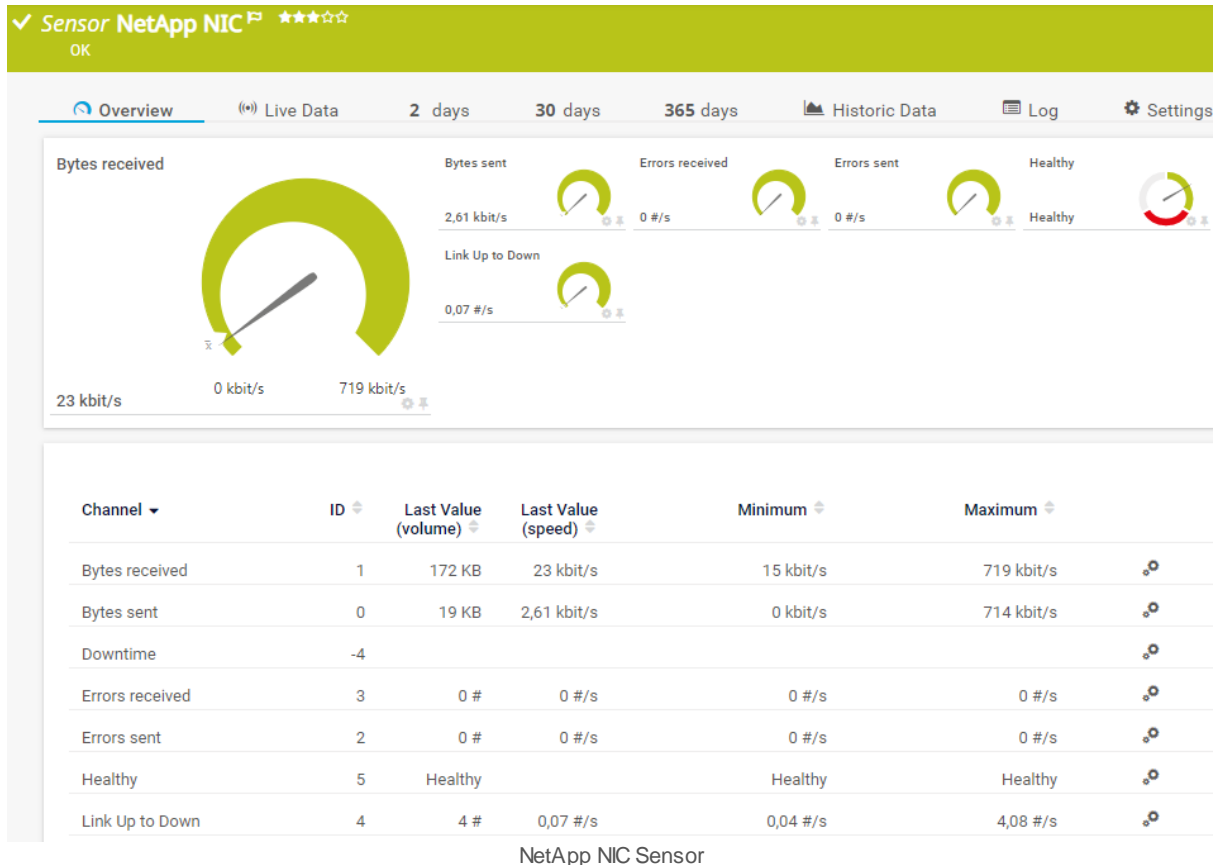
Part 7: Device and Sensor Setup | 8 Sensor Settings
98 NetApp LUN Sensor

- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.99 NetApp NIC Sensor

The NetApp NIC sensor monitors the network interface card (NIC) of a NetApp cDOT or ONTAP cluster accessing the application programming interface (API) via the Simple Object Access Protocol (SOAP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Sensor in Other Languages



- Dutch: NetApp NIC
- French: NIC NetApp
- German: NetApp NIC
- Japanese: NetApp NIC
- Portuguese: NetApp NIC
- Russian: NIC NetApp
- Simplified Chinese: NetApp NIC
- Spanish: NIC de NetApp

Remarks

- This sensor requires .NET 4.7.2 or later on the probe system.

- The ONTAPI user account that you use with this sensor needs [access](#) to the DATA ONTAP API (ONTAPI) so that the sensor can request data from it. The access is enabled by default.
- For this sensor, read-only user rights are sufficient for the ONTAPI user account that you use to access ONTAPI. Modify or add this user with a suitable role in the console under Cluster | ClusterX | Configuration | Security | Users
- This sensor supports NetApp cDOT as of version 8.3 and NetApp ONTAP as of version 9.0.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- You can define NetApp API credentials (User Name and Password) in the [credentials for Windows systems](#) settings of the parent device. This way, you do not have to individually enter credentials for each NetApp sensor that you add to the same device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Enabled ONTAPI access	<p>NetApp sensors require access to ONTAPI for the utilized user account. This is enabled by default. If access is disabled, locally use the following command on the cluster console to enable ONTAPI access for the user:</p> <pre>services web> modify -vserver clusterd -name ontapi -enabled true</pre>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG performs a meta-scan before you can add this sensor and requires basic information in advance. Provide the required information in the dialog box that appears. PRTG then recognizes all items that are available for monitoring based on your input.

Working...
✕

NetApp Connection

NetApp Credentials ⓘ

Use explicit credentials

Use Windows credentials from parent device

User Name ⓘ

This field is required.

Password ⓘ

This field is required.

Port ⓘ

443

Connection Security ⓘ

HTTP

HTTPS


Timeout (Sec.) ⓘ

60

NetApp Connection

NetApp Connection

Setting	Description
NetApp Credentials	<p>Specify which credentials you want to use to connect to the NetApp API:</p> <ul style="list-style-type: none"> ▪ Use explicit credentials: Use individual NetApp API credentials. ▪ Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings ⁴⁵² in section Credentials for Windows Systems. <p> ⓘ Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.</p>

Setting	Description
User Name	<p>This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string.</p> <p>i Read-only rights for this ONTAP user account are sufficient.</p>
Password	<p>This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.</p>
Port	<p>Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.</p>
Connection Security	<p>Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured:</p> <ul style="list-style-type: none"> ▪ HTTP: Use an unsecured HTTP connection. ▪ HTTPS: Use a secure connection to the defined port to send the query.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p> <p>Click OK to define the sensor settings .</p>

NetApp Specific

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Setting	Description
NICs	<p>Select the NICs that you want to monitor. PRTG creates one sensor for each NIC that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag ✕ +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ netapp ▪ cdot ▪ ontap ▪ soap
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★★★★☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

NetApp Connection

NetApp Connection

NetApp Credentials **i** Use explicit credentials
 Use Windows credentials from parent device

Port **i** 443

Connection Security **i** HTTP
 HTTPS

Timeout (Sec.) **i** 60

NetApp Connection

Setting	Description
NetApp Credentials	Specify which credentials you want to use to connect to the NetApp API: <ul style="list-style-type: none"> Use explicit credentials: Use individual NetApp API credentials. Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings [452] in section Credentials for Windows Systems. <ul style="list-style-type: none"> i Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.
User Name	This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string. <ul style="list-style-type: none"> i Read-only rights for this ONTAP user account are sufficient.
Password	This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.
Port	Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.
Connection Security	Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured: <ul style="list-style-type: none"> HTTP: Use an unsecured HTTP connection. HTTPS: Use a secure connection to the defined port to send the query.

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

NetApp Specific

NetApp Specific NICs **i** *NIC NetApp01*

NetApp Specific

Setting	Description
NICs	<p>Shows the ID of the NIC that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options Result Handling **i** Discard result
 Store result


Debug Options


Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].Data.txt and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p>

Setting	Description
	<p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>




Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type 
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

-  Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Bytes Received	<p>The number of bytes received per second</p> <p> This channel is the primary channel by default.</p>
Bytes Sent	The number of bytes sent per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Errors Received	The errors received per second
Errors Sent	The errors sent per second
Healthy	<p>If the system is healthy</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: Healthy ▪ Down status: Unhealthy

Channel	Description
	<ul style="list-style-type: none">Unknown status: Not Available
Link Up to Down	The number of up to down links per second

More

■ KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

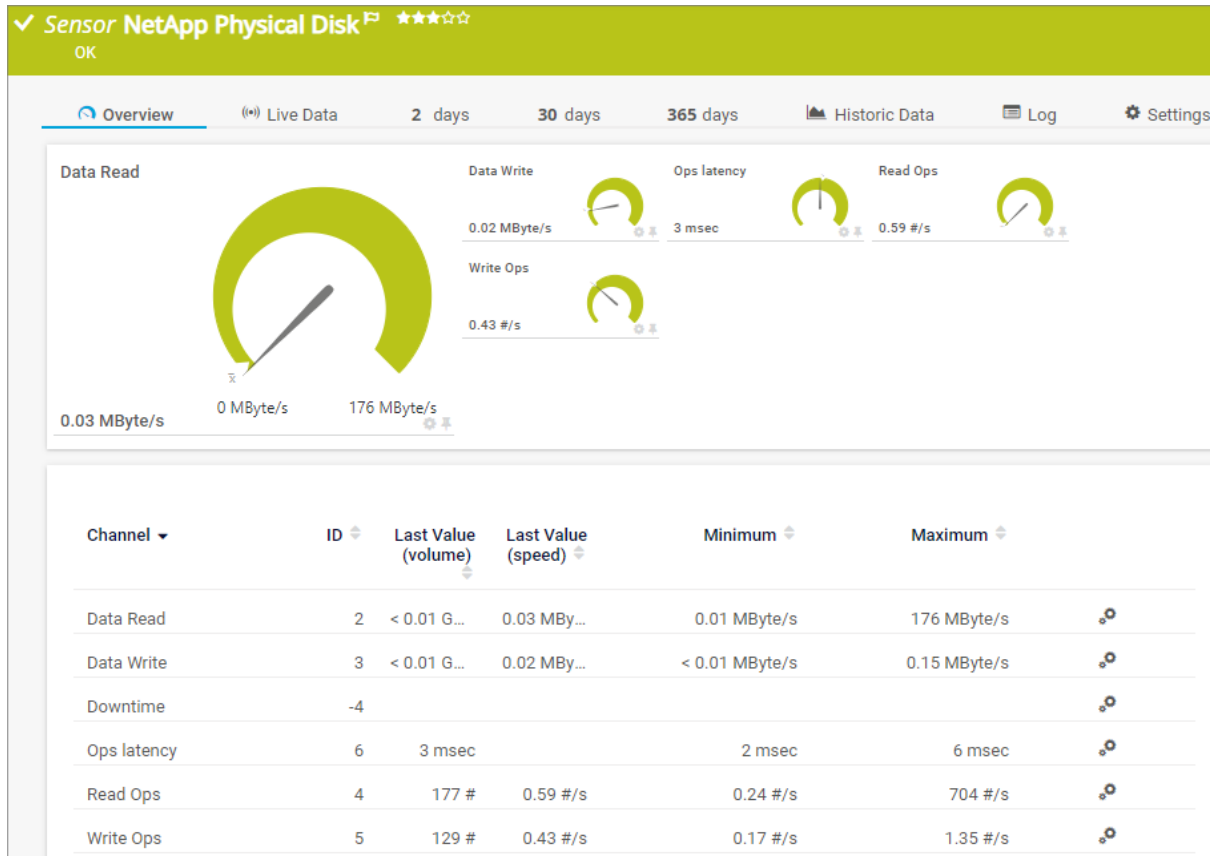
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.100 NetApp Physical Disk Sensor

The NetApp Physical Disk sensor monitors disks of a NetApp cDOT or ONTAP storage system accessing the application programming interface (API) via the Simple Object Access Protocol (SOAP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



NetApp Physical Disk Sensor

Sensor in Other Languages



- Dutch: NetApp Fysieke Schijf
- French: Disque physique NetApp
- German: NetApp Physikal. Laufwerk
- Japanese: NetApp 物理ディスク
- Portuguese: NetApp Disco físico
- Russian: NetApp
- Simplified Chinese: NetApp 物理磁盘
- Spanish: Disco físico de NetApp

Remarks

- This sensor requires .NET 4.7.2 or later on the probe system.

- The ONTAPI user account that you use with this sensor needs [access](#) to the DATA ONTAP API (ONTAPI) so that the sensor can request data from it. The access is enabled by default.
- For this sensor, read-only user rights are sufficient for the ONTAPI user account that you use to access ONTAPI. Modify or add this user with a suitable role in the console under Cluster | ClusterX | Configuration | Security | Users
- This sensor supersedes the deprecated NetApp cDOT Physical Disk (SOAP) sensor.
- This sensor supports NetApp cDOT as of version 8.3 and NetApp ONTAP as of version 9.0.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- You can define NetApp API credentials (User Name and Password) in the [credentials for Windows systems](#) settings of the parent device. This way, you do not have to individually enter credentials for each NetApp sensor that you add to the same device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Enabled ONTAPI access	<p>NetApp sensors require access to ONTAPI for the utilized user account. This is enabled by default. If access is disabled, locally use the following command on the cluster console to enable ONTAPI access for the user:</p> <pre>services web> modify -vserver clusterd -name ontapi -enabled true</pre>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG performs a meta-scan before you can add this sensor and requires basic information in advance. Provide the required information in the dialog box that appears. PRTG then recognizes all items that are available for monitoring based on your input.

Working...
✕

NetApp Connection

NetApp Credentials ⓘ

Use explicit credentials

Use Windows credentials from parent device

User Name ⓘ

This field is required.

Password ⓘ

This field is required.

Port ⓘ

443

Connection Security ⓘ

HTTP

HTTPS


Timeout (Sec.) ⓘ

60

NetApp Connection

NetApp Connection

Setting	Description
NetApp Credentials	<p>Specify which credentials you want to use to connect to the NetApp API:</p> <ul style="list-style-type: none"> ▪ Use explicit credentials: Use individual NetApp API credentials. ▪ Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings ^[452] in section Credentials for Windows Systems. <p> ⓘ Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.</p>

Setting	Description
User Name	<p>This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string.</p> <p>i Read-only rights for this ONTAP user account are sufficient.</p>
Password	<p>This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.</p>
Port	<p>Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.</p>
Connection Security	<p>Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured:</p> <ul style="list-style-type: none"> ▪ HTTP: Use an unsecured HTTP connection. ▪ HTTPS: Use a secure connection to the defined port to send the query.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p> <p>Click OK to define the sensor settings .</p>

NetApp Specific

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Setting	Description
Disk	<p>Select the physical disks that you want to monitor. PRTG creates one sensor for each physical disk that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag X +

Priority ⓘ ★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p> ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p> ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p> ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p> ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ netapp ▪ cdot ▪ ontap ▪ soap
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

NetApp Connection

NetApp Connection

NetApp Credentials **i** Use explicit credentials
 Use Windows credentials from parent device

Port **i** 443

Connection Security **i** HTTP
 HTTPS

Timeout (Sec.) **i** 60

NetApp Connection

Setting	Description
NetApp Credentials	Specify which credentials you want to use to connect to the NetApp API: <ul style="list-style-type: none"> Use explicit credentials: Use individual NetApp API credentials. Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings [452] in section Credentials for Windows Systems. <ul style="list-style-type: none"> i Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.
User Name	This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string. <ul style="list-style-type: none"> i Read-only rights for this ONTAP user account are sufficient.
Password	This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.
Port	Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.
Connection Security	Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured: <ul style="list-style-type: none"> HTTP: Use an unsecured HTTP connection. HTTPS: Use a secure connection to the defined port to send the query.

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

NetApp Specific

NetApp Specific Disk **i** Disk 1.21.0

NetApp Specific

Setting	Description
Disk	<p>Shows the physical disk that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options Result Handling **i** Discard result
 Store result


Debug Options


Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p>

Setting	Description
	<p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>




Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type 
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval


Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Data Read	<p>The data read speed in bytes per second</p> <p>i This channel is the primary channel by default.</p>
Data Write	The data write speed in bytes per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Ops Latency	The latency of operations in milliseconds (msec)
Read Ops	The number of disk read operations per second
Write Ops	The number of disk write operations per second

More

KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

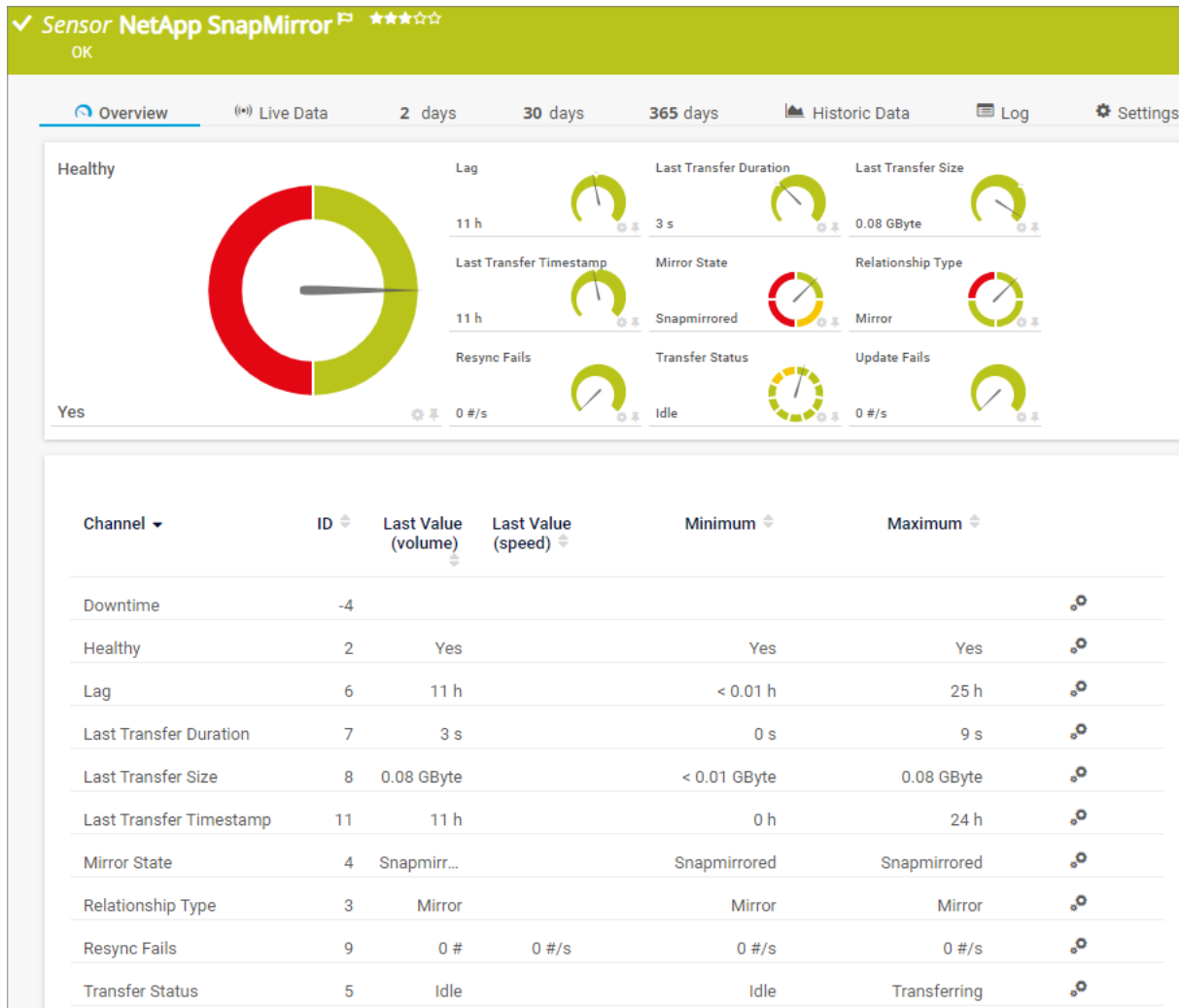
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3967

7.8.101 NetApp SnapMirror Sensor

The NetApp SnapMirror sensor monitors SnapMirror relationships of a NetApp cDOT or ONTAP storage system accessing the application programming interface (API) via the Simple Object Access Protocol (SOAP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



NetApp SnapMirror Sensor

Sensor in Other Languages



- Dutch: NetApp SnapMirror
- French: NetApp SnapMirror
- German: NetApp SnapMirror
- Japanese: NetApp SnapMirror
- Portuguese: NetApp SnapMirror
- Russian: NetApp SnapMirror

- Simplified Chinese: NetApp SnapMirror
- Spanish: NetApp SnapMirror

Remarks

- This sensor requires .NET 4.7.2 or later on the probe system.
- The ONTAPI user account that you use with this sensor needs [access](#)¹⁷⁷³ to the DATA ONTAP API (ONTAPI) so that the sensor can request data from it. The access is enabled by default.
- For this sensor, read-only user rights are sufficient for the ONTAPI user account that you use to access ONTAPI. Modify or add this user with a suitable role in the console under Cluster | ClusterX | Configuration | Security | Users
- This sensor supports NetApp cDOT as of version 8.3 and NetApp ONTAP as of version 9.0.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- You can define NetApp API credentials (User Name and Password) in the [credentials for Windows systems](#)⁴⁵² settings of the parent device. This way, you do not have to individually enter credentials for each NetApp sensor that you add to the same device.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)⁴⁴⁸⁵.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Enabled ONTAPI access	<p>NetApp sensors require access to ONTAPI for the utilized user account. This is enabled by default. If access is disabled, locally use the following command on the cluster console to enable ONTAPI access for the user:</p> <pre>services web> modify -vserver clusterd -name ontapi -enabled true</pre>

Add Sensor

The [Add Sensor](#)³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG performs a meta-scan before you can add this sensor and requires basic information in advance. Provide the required information in the dialog box that appears. PRTG then recognizes all items that are available for monitoring based on your input.

Working...
✕

NetApp Connection

NetApp Credentials ⓘ

Use explicit credentials
 Use Windows credentials from parent device

User Name ⓘ

This field is required.

Password ⓘ

This field is required.

Port ⓘ

443

Connection Security ⓘ

HTTP
 HTTPS

Timeout (Sec.) ⓘ

60

OK
Cancel

NetApp Connection

NetApp Connection

Setting	Description
NetApp Credentials	Specify which credentials you want to use to connect to the NetApp API: <ul style="list-style-type: none"> ▪ Use explicit credentials: Use individual NetApp API credentials.

Setting	Description
	<ul style="list-style-type: none"> Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings ¹⁷⁸² in section Credentials for Windows Systems. <ul style="list-style-type: none"> i Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.
User Name	<p>This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string.</p> <p>i Read-only rights for this ONTAP user account are sufficient.</p>
Password	<p>This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.</p>
Port	<p>Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.</p>
Connection Security	<p>Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured:</p> <ul style="list-style-type: none"> HTTP: Use an unsecured HTTP connection. HTTPS: Use a secure connection to the defined port to send the query.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p> <p>Click OK to define the sensor settings ¹⁷⁸³.</p>

NetApp Specific

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Setting	Description
SnapMirrors	<p>Select the SnapMirrors that you want to monitor. PRTG creates one sensor for each SnapMirror that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ netapp ▪ cdot ▪ ontap ▪ soap

Setting	Description
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

NetApp Connection

NetApp Connection

NetApp Credentials **i** Use explicit credentials
 Use Windows credentials from parent device

Port **i** 443

Connection Security **i** HTTP
 HTTPS

Timeout (Sec.) **i** 60

NetApp Connection

Setting	Description
NetApp Credentials	Specify which credentials you want to use to connect to the NetApp API: <ul style="list-style-type: none"> Use explicit credentials: Use individual NetApp API credentials. Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings [452] in section Credentials for Windows Systems. <p>i Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.</p>
User Name	This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string. <p>i Read-only rights for this ONTAP user account are sufficient.</p>
Password	This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.

Setting	Description
Port	Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.
Connection Security	Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured: <ul style="list-style-type: none"> ▪ HTTP: Use an unsecured HTTP connection. ▪ HTTPS: Use a secure connection to the defined port to send the query.
Timeout (Sec.)	Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes). <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

NetApp Specific

NetApp Specific SnapMirrors **i** *cDOT_SnapMirror_0*

NetApp Specific

Setting	Description
SnapMirrors	Shows the SnapMirror that this sensor monitors. <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options Result Handling **i** Discard result
 Store result

Debug Options

Setting	Description
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result.

Setting	Description
	<ul style="list-style-type: none"> Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ

Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration^[4187] on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

- Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Healthy	<p>If the system is healthy</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: Yes ▪ Down status: No

Channel	Description
	 This channel is the primary channel by default.
Lag	The lag transfer duration
Last Transfer Duration	The duration of the last transfer
Last Transfer Size	The size of the last transfer
Last Transfer Timestamp	The time stamp of the last transfer
Mirror State	The mirror state <ul style="list-style-type: none"> ▪ Up status: Snapmirrored ▪ Warning status: Uninitialized ▪ Down status: Broken-Off, Unknown
Relationship Type	The relationship type <ul style="list-style-type: none"> ▪ Up status: Mirror, Mirror and Vault, Vault ▪ Down status: Unknown
Resync Fails	The number of resynchronization fails per second
Transfer Status	The transfer status (relationship status returned from the API) <ul style="list-style-type: none"> ▪ Up status: Aborting, Checking, Finalizing, Idle, Preparing, Queued, Quiesced, Quiescing, Transferring ▪ Warning status: Breaking, Unknown
Update Fails	The number of update fails per second

More

■ KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.102 NetApp System Health Sensor

The NetApp System Health sensor monitors the health of a NetApp cDOT or ONTAP storage system accessing the application programming interface (API) via the Simple Object Access Protocol (SOAP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



NetApp System Health Sensor



Sensor in Other Languages

- Dutch: NetApp Systeem Gesteldheid
- French: État du système NetApp
- German: NetApp Systemzustand
- Japanese: NetApp システム正常性
- Portuguese: NetApp Funcionamento do sistema
- Russian: NetApp
- Simplified Chinese: NetApp 系统健康状况
- Spanish: Estado del sistema de NetApp

Remarks

- This sensor requires .NET 4.7.2 or later on the probe system.
- The ONTAPI user account that you use with this sensor requires [access](#)¹⁷⁹⁴ to the DATA ONTAP API (ONTAPI) so that the sensor can request data from it. The access is enabled by default.
- This sensor requires administrator rights for the ONTAPI user account that you use to access ONTAPI. Modify or add this user with a suitable role in the console under Cluster | ClusterX | Configuration | Security | Users
- This sensor supersedes the deprecated NetApp cDOT System Health (SOAP) sensor.
- This sensor supports NetApp cDOT as of version 8.3 and NetApp ONTAP as of version 9.0.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- As an alternative to administrator rights, you can add a specific Role Attribute and use read-only rights. For details, see section [Permissions: Alternative to Administrator Rights](#)¹⁸⁰⁶
- You can define NetApp API credentials (User Name and Password) in the [credentials for Windows systems](#)⁴⁵² settings of the parent device. This way, you do not have to individually enter credentials for each NetApp sensor that you add to the same device.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)⁴⁴⁸⁵.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Enabled ONTAPI access	<p>NetApp sensors require access to ONTAPI for the utilized user account. This is enabled by default. If access is disabled, locally use the following command on the cluster console to enable ONTAPI access for the user:</p> <pre>services web> modify -vserver clusterd -name ontapi -enabled true</pre>

Add Sensor

The [Add Sensor](#)³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG performs a meta-scan before you can add this sensor and requires basic information in advance. Provide the required information in the dialog box that appears. PRTG then recognizes all items that are available for monitoring based on your input.

Working...
✕

NetApp Connection

NetApp Credentials ⓘ

Use explicit credentials
 Use Windows credentials from parent device

User Name ⓘ

This field is required.

Password ⓘ

This field is required.

Port ⓘ

443

Connection Security ⓘ

HTTP
 HTTPS

Timeout (Sec.) ⓘ

60

OK
Cancel

NetApp Connection

NetApp Connection

Setting	Description
NetApp Credentials	Specify which credentials you want to use to connect to the NetApp API: <ul style="list-style-type: none"> ▪ Use explicit credentials: Use individual NetApp API credentials.

Setting	Description
	<ul style="list-style-type: none"> Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings ⁴⁵² in section Credentials for Windows Systems. <ul style="list-style-type: none"> i Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.
User Name	<p>This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string.</p> <ul style="list-style-type: none"> i Read-only rights for this ONTAP user account are sufficient.
Password	<p>This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.</p>
Port	<p>Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.</p>
Connection Security	<p>Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured:</p> <ul style="list-style-type: none"> HTTP: Use an unsecured HTTP connection. HTTPS: Use a secure connection to the defined port to send the query.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <ul style="list-style-type: none"> i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message. <p>Click OK to define the sensor settings ¹⁷⁹⁸.</p>

NetApp Specific

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Setting	Description
System Nodes	<p>Select the system nodes that you want to monitor. PRTG creates one sensor for each system node that you select.</p> <ul style="list-style-type: none"> i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ netapp ▪ cdot ▪ ontap ▪ soap

Setting	Description
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

NetApp Connection

NetApp Connection

NetApp Credentials ⓘ Use explicit credentials
 Use Windows credentials from parent device

Port ⓘ 443

Connection Security ⓘ HTTP
 HTTPS

Timeout (Sec.) ⓘ 60

NetApp Connection

Setting	Description
NetApp Credentials	Specify which credentials you want to use to connect to the NetApp API: <ul style="list-style-type: none"> Use explicit credentials: Use individual NetApp API credentials. Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings [452] in section Credentials for Windows Systems. <p>i Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.</p>
User Name	This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string. <p>i Read-only rights for this ONTAP user account are sufficient.</p>
Password	This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.

Setting	Description
Port	Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.
Connection Security	Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured: <ul style="list-style-type: none"> ▪ HTTP: Use an unsecured HTTP connection. ▪ HTTPS: Use a secure connection to the defined port to send the query.
Timeout (Sec.)	Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes). <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

NetApp Specific

NetApp Specific System Nodes **i** *node001*

NetApp Specific

Setting	Description
System Nodes	Shows the ID of the system node that this sensor monitors. <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options Result Handling **i** Discard result
 Store result

Debug Options

Setting	Description
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result.

Setting	Description
	<ul style="list-style-type: none"> Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ

Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration^[4187] on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Permissions: Alternative to Administrator Rights

If you do not want to provide administrator rights for the ONTAPI user account that you use with the NetApp System Health sensor, you can add a new command to the selected role of the user that makes read-only rights sufficient.

- Edit the Role of this user in the console under Cluster | ClusterX | Configuration | Security | Users.
- Add the command storage aggregate check_spare_low with access control list (ACL) all to the Role Attributes.

With this role attribute, read-only rights are sufficient for the NetApp System Health sensor.

Channel List

- ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU	<p>The CPU load in percent</p> <p>i This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Failed Fans	<p>The number of failed fans</p>
Failed PSU	<p>The number of failed power supplies</p>
Memory	<p>The memory usage</p>
Node Health	<p>The node health</p> <ul style="list-style-type: none"> Up status¹⁹⁷: OK Down status: Error
NVRAM Battery	<p>The NVRAM battery status</p> <ul style="list-style-type: none"> Up status: OK Down status: Error
Spare Disks #	<p>The number of spare disks</p>
Spare Disks Low	<p>If spare disks are low as reported by the NetApp</p> <ul style="list-style-type: none"> Up status: No Down status: Yes
Spare Size Usable	<p>The usable spare size</p>
Storage Configuration Path	<p>The storage configuration path that describes the connection of a node</p> <ul style="list-style-type: none"> Up status: multi_path, multi_path_ha, quad_path, quad_path_ha, N/A Warning status: single_path, single_path_ha, mixed_path, mixed_path_ha Down status: unknown <p>i If no storage configuration path is returned, the sensor shows the Up status (N/A) because the availability of the configuration path depends on the NetApp version.</p>
Temperature	<p>The temperature status</p>

Channel	Description
	<ul style="list-style-type: none">▪ Up status: OK▪ Down status: Error
Uptime	The uptime

More

KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

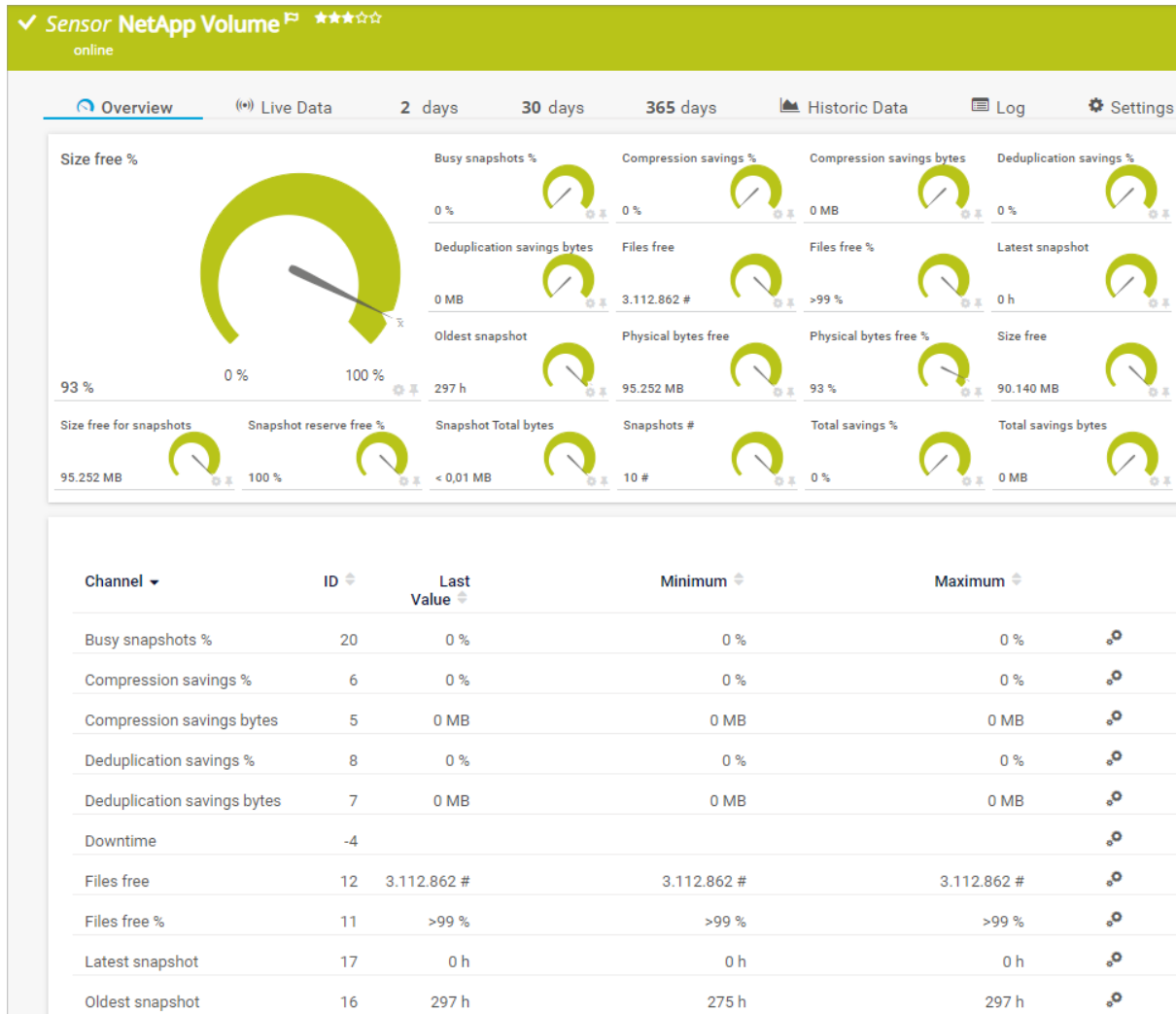
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.103 NetApp Volume Sensor

The NetApp Volume sensor monitors volumes on a NetApp cDOT or ONTAP storage system accessing the application programming interface (API) via the Simple Object Access Protocol (SOAP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



NetApp Volume Sensor

Sensor in Other Languages



- Dutch: NetApp Volume
- French: Volume NetApp
- German: NetApp Volume
- Japanese: NetApp ボリューム
- Portuguese: NetApp Volume
- Russian: NetApp
- Simplified Chinese: NetApp 卷

- Spanish: Volumen de NetApp

Remarks

- This sensor requires .NET 4.7.2 or later on the probe system.
- The ONTAPI user account that you use with this sensor requires [access](#) to DATA ONTAP API (ONTAPI) so that the sensor can request data from it. The access is enabled by default.
- For this sensor, read-only user rights are sufficient for the ONTAPI user account that you use to access ONTAPI. Modify or add this user with a suitable role in the console under Cluster | ClusterX | Configuration | Security | Users
- This sensor supports NetApp cDOT as of version 8.3 and NetApp ONTAP as of version 9.0.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- You can define NetApp API credentials (User Name and Password) in the [credentials for Windows systems](#) settings of the parent device. This way, you do not have to individually enter credentials for each NetApp sensor that you add to the same device.

Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Enabled ONTAPI access	<p>NetApp sensors require access to ONTAPI for the utilized user account. This is enabled by default. If access is disabled, locally use the following command on the cluster console to enable ONTAPI access for the user:</p> <pre>services web> modify -vserver clusterd -name ontapi -enabled true</pre>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

PRTG performs a meta-scan before you can add this sensor and requires basic information in advance. Provide the required information in the dialog box that appears. PRTG then recognizes all items that are available for monitoring based on your input.

Working...
✕

NetApp Connection

NetApp Credentials ⓘ

Use explicit credentials

Use Windows credentials from parent device

User Name ⓘ

This field is required.

Password ⓘ

This field is required.

Port ⓘ

443

Connection Security ⓘ

HTTP

HTTPS

Timeout (Sec.) ⓘ

60

OK
Cancel

NetApp Connection

NetApp Connection

Setting	Description
NetApp Credentials	<p>Specify which credentials you want to use to connect to the NetApp API:</p> <ul style="list-style-type: none"> ▪ Use explicit credentials: Use individual NetApp API credentials. ▪ Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings ⁴⁵² in section Credentials for Windows Systems. <p> ⓘ Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.</p>

Setting	Description
User Name	<p>This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string.</p> <p>i Read-only rights for this ONTAP user account are sufficient.</p>
Password	<p>This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.</p>
Port	<p>Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.</p>
Connection Security	<p>Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured:</p> <ul style="list-style-type: none"> ▪ HTTP: Use an unsecured HTTP connection. ▪ HTTPS: Use a secure connection to the defined port to send the query.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p> <p>Click OK to define the sensor settings ¹⁸¹².</p>

NetApp Specific

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Setting	Description
Volumes	<p>Select the volumes that you want to monitor. PRTG creates one sensor for each volume that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p> <p>i Volumes that are offline do not appear in this list.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ exampletag X +

Priority ⓘ ★ ★ ★ ☆ ☆

Example Name

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p> ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p> ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p> ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p> ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ netapp ▪ cdot ▪ ontap ▪ soap
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

NetApp Connection

NetApp Connection

NetApp Credentials **i** Use explicit credentials
 Use Windows credentials from parent device

Port **i** 443

Connection Security **i** HTTP
 HTTPS

Timeout (Sec.) **i** 60

NetApp Connection

Setting	Description
NetApp Credentials	Specify which credentials you want to use to connect to the NetApp API: <ul style="list-style-type: none"> Use explicit credentials: Use individual NetApp API credentials. Use Windows credentials from parent device: Use the credentials (User Name and Password) in the parent device settings [452] in section Credentials for Windows Systems. <ul style="list-style-type: none"> i Defining credentials in the parent device is useful if you add several NetApp sensors to this device because you do not have to individually enter credentials for each NetApp sensor.
User Name	This setting is only visible if you select Use explicit credentials above. Enter a user name for access to the NetApp API. Enter a string. <ul style="list-style-type: none"> i Read-only rights for this ONTAP user account are sufficient.
Password	This setting is only visible if you select Use explicit credentials above. Enter the password of the user for access to the NetApp API. Enter a string.
Port	Enter a port number on which you can access the NetApp API. Enter an integer value. The default port is 443.
Connection Security	Define if the connection to the NetApp API is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured: <ul style="list-style-type: none"> HTTP: Use an unsecured HTTP connection. HTTPS: Use a secure connection to the defined port to send the query.

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

NetApp Specific

NetApp Specific Volumes **i** *Volume volume000-01:vol0*

NetApp Specific

Setting	Description
Volumes	<p>Shows the volume that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options Result Handling **i** Discard result
 Store result


Debug Options


Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].Data.txt and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p>

Setting	Description
	<p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>




Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type 
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval


Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Busy Snapshots %	The number of busy snapshots in percent
Compression Savings %	The compression savings in percent
Compression Savings Bytes	The compression savings in bytes
Deduplication Savings %	The deduplication savings in percent
Deduplication Savings Bytes	The deduplication savings in bytes
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Files Free	The free files in total

Channel	Description
Files Free %	The free files in percent
Latest Snapshot	The age of the last snapshot
Oldest Snapshot	The age of the oldest snapshot
Physical Bytes Free	The free physical bytes in total
Physical Bytes Free %	The free physical bytes in percent
Size Free	The free size in total
Size Free %	The free size in percent  This channel is the primary channel by default.
Size Free For Snapshots	The free size for snapshots
Snapshot Reserve Free %	The free snapshot reserve in percent
Snapshots #	The number of snapshots
Total Savings %	The total savings in percent
Total Savings Bytes	The total savings in bytes

More

KNOWLEDGE BASE

Which .NET version does PRTG require?




- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977

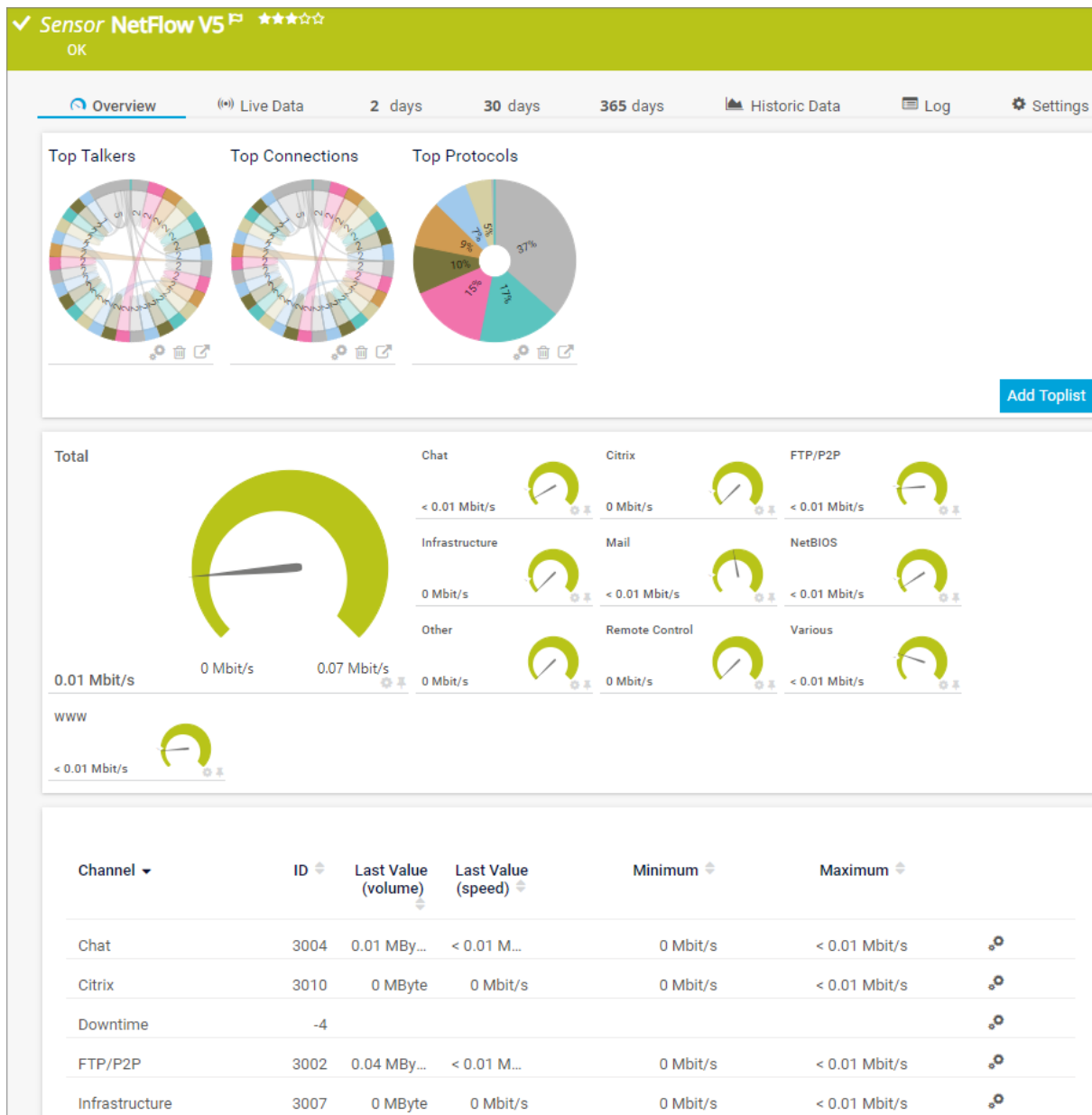
- [Notification Triggers Settings](#) 

7.8.104 NetFlow v5 Sensor

The NetFlow v5 sensor receives traffic data from a NetFlow v5-compatible device and shows the traffic by type. This sensor has several filter options to divide traffic into different channels.

i Make sure that the sensor matches the NetFlow version that your device exports.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



NetFlow v5 Sensor

Sensor in Other Languages

- Dutch: NetFlow v5
- French: NetFlow v5

- German: NetFlow v5
- Japanese: NetFlow v5
- Portuguese: NetFlow v5
- Russian: NetFlow v5
- Simplified Chinese: NetFlow v5
- Spanish: NetFlow v5

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
 - You must enable NetFlow export of the respective version on the monitored device for this sensor to work. The device must send the flow data stream to the IP address of the probe system.
 - For cloning this sensor, the following rules apply. If you add the clone to the **same** probe, PRTG keeps the selected IP addresses on which it listens for xFlow (NetFlow, jFlow, sFlow, IPFIX) packets. If you add the clone to a **different** probe, PRTG selects **all** available IP addresses by default. You can change the selected IP addresses in the sensor settings.
 - You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
 - See the Knowledge Base: [What is the Active Flow Timeout in Flow sensors?](#)
 - See the Knowledge Base: [How can I change the default groups and channels for xFlow and Packet Sniffer sensors?](#)
- ☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) ³⁶⁷ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains the following fields:

- Sensor Name**: Example Name
- Tags**: exampletag (with a plus icon to add more)
- Priority**: ★★★★★ (with the first four stars filled)

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ bandwidthsensor ▪ netflowsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>







NetFlow v5 Specific Settings

NetFlow v5 Specific Settings

Receive NetFlow Packets on UDP Port ⓘ	9997
Sender IP Address ⓘ	
Receive NetFlow Packets on IP Address ⓘ	<input checked="" type="checkbox"/> Probe's Local IP Addresses
	<input checked="" type="checkbox"/> 192.0.2.0
Active Flow Timeout (Minutes) ⓘ	10
Sampling Mode ⓘ	<input checked="" type="radio"/> Off <input type="radio"/> On
Stream Data Handling ⓘ	<input checked="" type="radio"/> Discard stream data (recommended) <input type="radio"/> Store stream data only for the 'Other' channel <input type="radio"/> Store all stream data

NetFlow v5 Specific Settings

Setting	Description
Receive NetFlow Packets on UDP Port	<p>Enter the User Datagram Protocol (UDP) port number on which the flow packets are received. It must match the UDP port number in the NetFlow export options of the hardware router device. Enter an integer value.</p> <p>i When you configure the export, make sure that you select the appropriate NetFlow version for this sensor.</p>
Sender IP Address	<p>Enter the IP address of the sending device that you want to receive the NetFlow from. Enter an IP address to only receive data from a specific device or leave the field empty to receive data from any device on the specified port.</p>
Receive NetFlow Packets on IP Address	<p>Select the IP addresses on which PRTG listens to NetFlow packets. The list of IP addresses is specific to your setup. To select an IP address, add a check mark in front of the respective line. The IP address that you select must match the IP address in the NetFlow export options of the hardware router device.</p> <p>i When you configure the export, make sure that you select the appropriate NetFlow version for this sensor.</p> <p>i You can also select all items or cancel the selection by using the check box in the table header.</p>

Setting	Description
Active Flow Timeout (Minutes)	<p>Enter a time span in minutes after which the sensor must receive new flow data. If the timeout elapses and the sensor receives no new data during this time, it shows the Unknown status^[197]. Enter an integer value. The maximum timeout is 60 minutes.</p> <ul style="list-style-type: none">  We recommend that you set the timeout one minute longer than the timeout in the hardware router device.  If you set this value too low, flow information might be lost.  For more details, see the Knowledge Base: What is the Active Flow Timeout in Flow sensors?  If the target device sends incorrect time information that results in wrong monitoring data, try to use 0 as active flow timeout. This ignores the start and stop information of a flow as provided by the device and accounts all data to the current point in time. It might result in spikes but all data is captured.
Sampling Mode	<p>Define if you want to use the sampling mode:</p> <ul style="list-style-type: none"> ▪ Off: Use the standard flow. ▪ On: Use the sampling mode and specify the Sampling Rate below. <p> This setting must match the setting in the xFlow exporter.</p>
Sampling Rate	<p>This setting is only visible if you select On above. Enter a number that matches the sampling rate in the exporting device. If the number is different, monitoring results will be incorrect. Enter an integer value.</p>
Stream Data Handling	<p>Define what PRTG does with the stream and packet data:</p> <ul style="list-style-type: none"> ▪ Discard stream data (recommended): Do not store the stream and packet data. ▪ Store stream data only for the 'Other' channel: Only store stream and packet data that is not otherwise filtered and is therefore accounted to the default Other channel. PRTG stores this data in the \StreamLog subfolder of the PRTG data directory^[4526] on the probe system. The file name is Streams Sensor [ID] (1).csv. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. ▪ Store all stream data: Store all stream and packet data. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> Use with caution. If you enable this setting, it can create huge data files. We recommend that you only use this setting for a short time.</p>

Channel Configuration

Channel Configuration

Group	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Content
Web	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	WWW Traffic: HTTP, HTTPS
File Transfer	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	File Transfer: FTP (Control)
Mail	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Mail Traffic: IMAP, POP3, SMTP
Chat	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Chat, Instant Messaging: IRC, AIM
Remote Control	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Remote Control: RDP, SSH, Telnet, VNC
Infrastructure	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Network Services: DHCP, DNS, Ident, ICMP, SNMP
NetBIOS	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	NetBIOS: NETBIOS
Citrix	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Citrix: Citrix
Other Protocols	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Various: Other UDP, Other TCP

Note You can change the default settings for the selected channels. This way, you do not have to customize this setting each time that you add this sensor type to PRTG. For details, see [this article](#) in the Knowledge Base.

Channel Configuration

Setting	Description
Channel Selection	<p>Define the categories that the sensor accounts the traffic to:</p> <ul style="list-style-type: none"> ▪ Web: Internet web traffic. ▪ File Transfer: Traffic from FTP. ▪ Mail: Internet mail traffic. ▪ Chat: Traffic from chat and instant messaging. ▪ Remote Control: Traffic from remote control applications such as RDP, SSH, Telnet, and VNC. ▪ Infrastructure: Traffic from network services such as DHCP, DNS, Ident, ICMP, and SNMP. ▪ NetBIOS: Traffic from NetBIOS communication. ▪ Citrix: Traffic from Citrix applications. ▪ Other Protocols: Traffic from various other protocols via UDP and TCP. <p>For each group, you can select how many channels the sensor uses, that is, how detailed the sensor divides the traffic. For each group, choose from:</p> <ul style="list-style-type: none"> ▪ No (✘): Do not account traffic of this group in its own channel. The sensor accounts all traffic of this group to the default channel named Other. ▪ Yes (✔): Count all traffic of this group and summarize it in one channel.

Setting	Description
	<ul style="list-style-type: none"> ▪ Detail (🔍): Count all traffic of this group and further divide it into different channels. The traffic appears in several channels that you can see in the Content column. <ul style="list-style-type: none"> ⓘ Extensive use of this option can cause load problems on the probe system. We recommend that you set specific, well-chosen filters for the data that you really want to analyze. ■ You can change the default configuration for groups and channels. For details, see the Knowledge Base: How can I change the default groups and channels for xFlow and Packet Sniffer sensors?

Filtering

■ For detailed information, see section [Filter Rules](#) ¹⁸³⁷.

Filtering

Filters *To include and exclude specific traffic, you can define filter rules based on the following format guidelines:*

- field[filter]

Fields:

IP, Port, SourceIP, SourcePort, DestinationIP, DestinationPort, Protocol (values TCP, UDP, ICMP, OSPFIGP or any number), ToS, DSCP

Additional IPFIX fields:

Interface, ASI, InboundInterface, OutboundInterface, SourceASI, DestinationASI, MAC, SourceMAC, DestinationMAC, Mask, SourceMask, DestinationMask ('Masks' represent subnet masks in the form of a single number ('number of contiguous bits')), NextHop (IP Address), VLAN, SourceVLAN, DestinationVLAN ('VLANs' represent a VLAN identifier)

Include Filter ⓘ

Exclude Filter ⓘ

Filtering

Setting	Description
Include Filter	Define if you want to filter any traffic. If you leave this field empty, the sensor includes all traffic. To include specific traffic only, define filters using a special syntax.
Exclude Filter	First, the sensor considers the filters in Include Filter. From this subset, you can explicitly exclude traffic, using the same syntax.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ⓘ).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Primary Toplist

Primary Toplist


Primary Toplist ⓘ Top Connections

Primary Toplist

Setting	Description
Primary Toplist	<p>Define which Toplist is the primary Toplist of the sensor:</p> <ul style="list-style-type: none"> ▪ Top Talkers ▪ Top Connections

Setting	Description
	<ul style="list-style-type: none"> ▪ Top Protocols ▪ [Any custom Toplists you add] <p> PRTG shows the primary Toplist in maps when you add a Toplist object.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ^[368] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ^[142].

Scanning Interval

Click  to interrupt the [inheritance](#) ^[142].

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².


Channel Unit Configuration

inherit from Root

Channel Unit Types ⓘ

Channel Type	Unit
Bytes (Bandwidth)	MB
	Mbit
	/
	second

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Toplists

For all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors, Toplists are available on the sensor's Overview tab. Using Toplists, you can review traffic data for small time periods in great detail.

 For more information, see section [Toplists](#) .

Filter Rules

The following filter rules apply to all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors.

 For more information, see section [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#) .

Field	Possible Filter Values
IP	IP address or Domain Name System (DNS) name
Port	Any number
SourceIP	IP address or Domain Name System (DNS) name
SourcePort	Any number
DestinationIP	IP address or Domain Name System (DNS) name
DestinationPort	Any number

Field	Possible Filter Values
Protocol	Transmission Control Protocol (TCP), User Datagram Protocol (UDP), Internet Control Message Protocol (ICMP), Open Shortest Path First (OSPF), any number
ToS	Type of Service (ToS): any number
DSCP	Differentiated Services Code Point (DSCP): any number


The following filter rules apply to NetFlow v5 sensors only.

Field	Possible Filter Values
Interface	Any number
ASI	Any number
InboundInterface	Any number
OutboundInterface	Any number
SenderIP	IP address of the sending device. Use this if you have several devices that send flow data on the same port, and you want to divide the traffic of each device into a different channel. Possible values: IP address or DNS name
SourceASI	Any number
DestinationASI	Any number

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Chat	The traffic from chat and instant messaging (Internet Relay Chat (IRC), AOL Instant Messenger (AIM)) in bytes per second
Citrix	The traffic from Citrix applications in bytes per second

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
FTP/P2P	The traffic from file transfer (File Transfer Protocol (FTP)/Peer-to-Peer (P2P)) in bytes per second
Infrastructure	The traffic from network services (Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), Ident, Internet Control Message Protocol (ICMP), Simple Network Management Protocol (SNMP)) in bytes per second
Mail	The internet mail traffic (Internet Message Access Protocol (IMAP), Post Office Protocol version 3 (POP3), Simple Mail Transfer Protocol (SMTP)) in bytes per second
NetBIOS	The traffic from NetBIOS communication in bytes per second
Other	The traffic from various other protocols (User Datagram Protocol (UDP), Transmission Control Protocol (TCP)) in bytes per second
Remote Control	The traffic from remote control applications (Remote Desktop Protocol (RDP), Secure Shell (SSH), Telnet, Virtual Network Computing (VNC)) in bytes per second
Total	The total traffic in bytes per second  This channel is the primary channel by default.
Various	The traffic from various other sources in bytes per second
WWW	The traffic from the web (HTTP, HTTPS) in bytes per second

More

■ KNOWLEDGE BASE

What is the Active Flow Timeout in Flow sensors?

- <https://kb.paessler.com/en/topic/66485>

How can I change the default groups and channels for xFlow and Packet Sniffer sensors?

- <https://kb.paessler.com/en/topic/60203>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Part 7: Device and Sensor Setup | 8 Sensor Settings
104 NetFlow v5 Sensor

Where is the volume line in graphs?

- <https://kb.paessler.com/en/topic/61272>





PAESSLER TOOLS

NetFlow Tester

- <https://www.paessler.com/tools/netflowtester>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

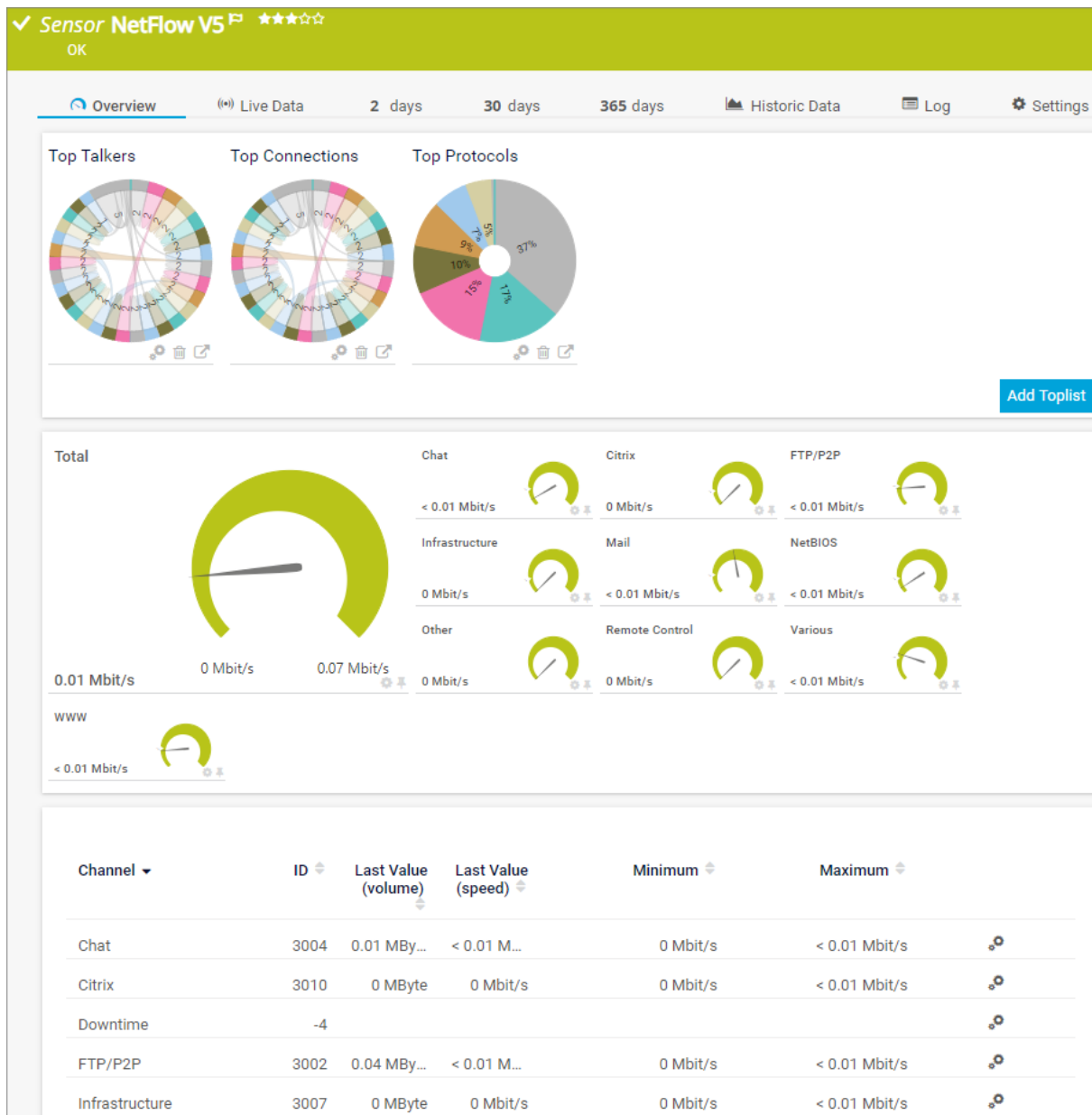
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3927

7.8.105 NetFlow v5 (Custom) Sensor

The NetFlow v5 (Custom) sensor receives traffic data from a NetFlow v5-compatible device and shows the traffic by type. With this sensor, you can define your own channel definitions to divide traffic into different channels.

i Make sure that the sensor matches the NetFlow version that your device exports.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



NetFlow v5 (Custom) Sensor

Sensor in Other Languages

- Dutch: NetFlow v5 (aangepast)

- French: NetFlow v5(personnalisé)
- German: NetFlow v5 (Benutzerdefiniert)
- Japanese: NetFlow v5(カスタム)
- Portuguese: NetFlow v5 (personalizado)
- Russian: NetFlow v5 ()
- Simplified Chinese: NetFlow v5 (自定义)
- Spanish: NetFlow v5 (Personalizado)

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- You must enable NetFlow export of the respective version on the monitored device for this sensor to work. The device must send the flow data stream to the IP address of the probe system.
- This sensor does not officially support more than 50 channels. Depending on the data used with this sensor, you might exceed the maximum number of supported channels. In this case, PRTG tries to display all channels. Be aware, however, that you experience limited usability and performance.
- You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
- See the Knowledge Base: [What is the Active Flow Timeout in Flow sensors?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three rows of settings:

- Sensor Name**: A text input field containing "Example Name".
- Tags**: A text input field containing "exampletag" with a blue 'x' icon to its right and a plus icon to its left.
- Priority**: A field showing five stars, with the first three stars filled and the last two empty.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ bandwidthsensor ▪ netflowsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

NetFlow v5 Specific Settings

NetFlow v5 Specific Settings

Receive NetFlow Packets on UDP Port 9997

ⓘ

Sender IP Address ⓘ

Receive NetFlow Packets on IP Address ⓘ

ⓘ Probe's Local IP Addresses

192.0.2.0

Active Flow Timeout (Minutes) 10

ⓘ

Sampling Mode ⓘ

Off

On

Channel Definition ⓘ

Stream Data Handling ⓘ









Discard stream data (recommended)

Store stream data only for the 'Other' channel

Store all stream data

NetFlow v5 Specific Settings

Setting	Description
Receive NetFlow Packets on UDP Port	<p>Enter the User Datagram Protocol (UDP) port number on which the flow packets are received. It must match the UDP port number in the NetFlow export options of the hardware router device. Enter an integer value.</p> <p> ⓘ When you configure the export, make sure that you select the appropriate NetFlow version for this sensor.</p>
Sender IP Address	<p>Enter the IP address of the sending device that you want to receive the NetFlow from. Enter an IP address to only receive data from a specific device or leave the field empty to receive data from any device on the specified port.</p>
Receive NetFlow Packets on IP Address	<p>Select the IP addresses on which PRTG listens to NetFlow packets. The list of IP addresses is specific to your setup. To select an IP address, add a check mark in front of the respective line. The IP address that you select must match the IP address in the NetFlow export options of the hardware router device.</p> <p> ⓘ When you configure the export, make sure that you select the appropriate NetFlow version for this sensor.</p>

Setting	Description
	<p> You can also select all items or cancel the selection by using the check box in the table header.</p>
Active Flow Timeout (Minutes)	<p>Enter a time span in minutes after which the sensor must receive new flow data. If the timeout elapses and the sensor receives no new data during this time, it shows the Unknown status¹⁹⁷. Enter an integer value. The maximum timeout is 60 minutes.</p> <p> We recommend that you set the timeout one minute longer than the timeout in the hardware router device.</p> <p> If you set this value too low, flow information might be lost.</p> <p> For more details, see the Knowledge Base: What is the Active Flow Timeout in Flow sensors?</p> <p> If the target device sends incorrect time information that results in wrong monitoring data, try to use 0 as active flow timeout. This ignores the start and stop information of a flow as provided by the device and accounts all data to the current point in time. It might result in spikes but all data is captured.</p>
Sampling Mode	<p>Define if you want to use the sampling mode:</p> <ul style="list-style-type: none"> ▪ Off: Use the standard flow. ▪ On: Use the sampling mode and specify the Sampling Rate below. <p> This setting must match the setting in the xFlow exporter.</p>
Sampling Rate	<p>This setting is only visible when sampling mode is On above. Enter a number that matches the sampling rate in your device that exports the xFlows. If the number is different, monitoring results will be incorrect. Enter an integer value.</p>
Channel Definition	<p>Enter a channel definition to divide the traffic into different channels. Enter each definition in one line. The sensor accounts all traffic that you do not define a channel for to the default channel Other.</p> <p> For detailed information, see section Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors⁴⁴⁸¹.</p> <p> Extensive use of many filters can cause load problems on the probe system. We recommend that you define specific, well-chosen filters for the data that you really want to analyze. We recommend that you do not use more than 20 channels in graphs and tables, and not more than 100 channels in total. For performance reasons, we recommend that you add several sensors with fewer channels each.</p>
Stream Data Handling	<p>Define what PRTG does with the stream and packet data:</p>

Setting	Description
	<ul style="list-style-type: none"> Discard stream data (recommended): Do not store the stream and packet data. Store stream data only for the 'Other' channel: Only store stream and packet data that is not otherwise filtered and is therefore accounted to the default Other channel. PRTG stores this data in the \StreamLog subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file name is Streams Sensor [ID] (1).csv. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. Store all stream data: Store all stream and packet data. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i Use with caution. If you enable this setting, it can create huge data files. We recommend that you only use this setting for a short time.</p>

Filtering

For detailed information, see section [Filter Rules](#)¹⁸⁵³.

Filtering

Filters To include and exclude specific traffic, you can define filter rules based on the following format guidelines:

- field[filter]

Fields:

IP, Port, SourceIP, SourcePort, DestinationIP, DestinationPort, Protocol (values TCP, UDP, ICMP, OSPFIGP or any number), ToS, DSCP

Additional IPFIX fields:

Interface, ASI, InboundInterface, OutboundInterface, SourceASI, DestinationASI, MAC, SourceMAC, DestinationMAC, Mask, SourceMask, DestinationMask ('Masks' represent subnet masks in the form of a single number ('number of contiguous bits')), NextHop (IP Address), VLAN, SourceVLAN, DestinationVLAN ('VLANs' represent a VLAN identifier)

Include Filter ⓘ

Exclude Filter ⓘ

Filtering

Setting	Description
Include Filter	Define if you want to filter any traffic. If you leave this field empty, the sensor includes all traffic. To include specific traffic only, define filters using a special syntax.
Exclude Filter	First, the sensor considers the filters in Include Filter. From this subset, you can explicitly exclude traffic, using the same syntax.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Primary Toplist

Primary Toplist


Primary Toplist ⓘ Top Connections

Primary Toplist

Setting	Description
Primary Toplist	<p>Define which Toplist is the primary Toplist of the sensor:</p> <ul style="list-style-type: none"> ▪ Top Talkers ▪ Top Connections

Setting	Description
	<ul style="list-style-type: none"> ▪ Top Protocols ▪ [Any custom Toplists you add] <p> PRTG shows the primary Toplist in maps when you add a Toplist object.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[368] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p> i You can change the available intervals in the system administration on PRTG on premises installations. </p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p> i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply. </p> <p> i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply. </p> <p> i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply. </p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².


Channel Unit Configuration

inherit from Root

Channel Unit Types ⓘ



Channel Type	Unit
Bytes (Bandwidth)	MB
	Mbit
	/
	second

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Toplists

For all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors, Toplists are available on the sensor's Overview tab. Using Toplists, you can review traffic data for small time periods in great detail.

 For more information, see section [Toplists](#) .

Filter Rules

The following filter rules apply to all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors.

 For more information, see section [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#) .

Field	Possible Filter Values
IP	IP address or Domain Name System (DNS) name
Port	Any number
SourceIP	IP address or Domain Name System (DNS) name
SourcePort	Any number
DestinationIP	IP address or Domain Name System (DNS) name
DestinationPort	Any number

Field	Possible Filter Values
Protocol	Transmission Control Protocol (TCP), User Datagram Protocol (UDP), Internet Control Message Protocol (ICMP), Open Shortest Path First (OSPF), any number
ToS	Type of Service (ToS): any number
DSCP	Differentiated Services Code Point (DSCP): any number


The following filter rules apply to NetFlow v5 sensors only.

Field	Possible Filter Values
Interface	Any number
ASI	Any number
InboundInterface	Any number
OutboundInterface	Any number
SenderIP	IP address of the sending device. Use this if you have several devices that send flow data on the same port, and you want to divide the traffic of each device into a different channel. Possible values: IP address or DNS name
SourceASI	Any number
DestinationASI	Any number

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
[Custom]	The traffic by type according to the channel definition

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Other	All traffic for which no channel is defined in bytes per second
Total	The total traffic in bytes per second  This channel is the primary channel by default.

More

KNOWLEDGE BASE

What is the Active Flow Timeout in Flow sensors?

- <https://kb.paessler.com/en/topic/66485>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Where is the volume line in graphs?

- <https://kb.paessler.com/en/topic/61272>





PAESSLER TOOLS

NetFlow Tester

- <https://www.paessler.com/tools/netflowtester>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

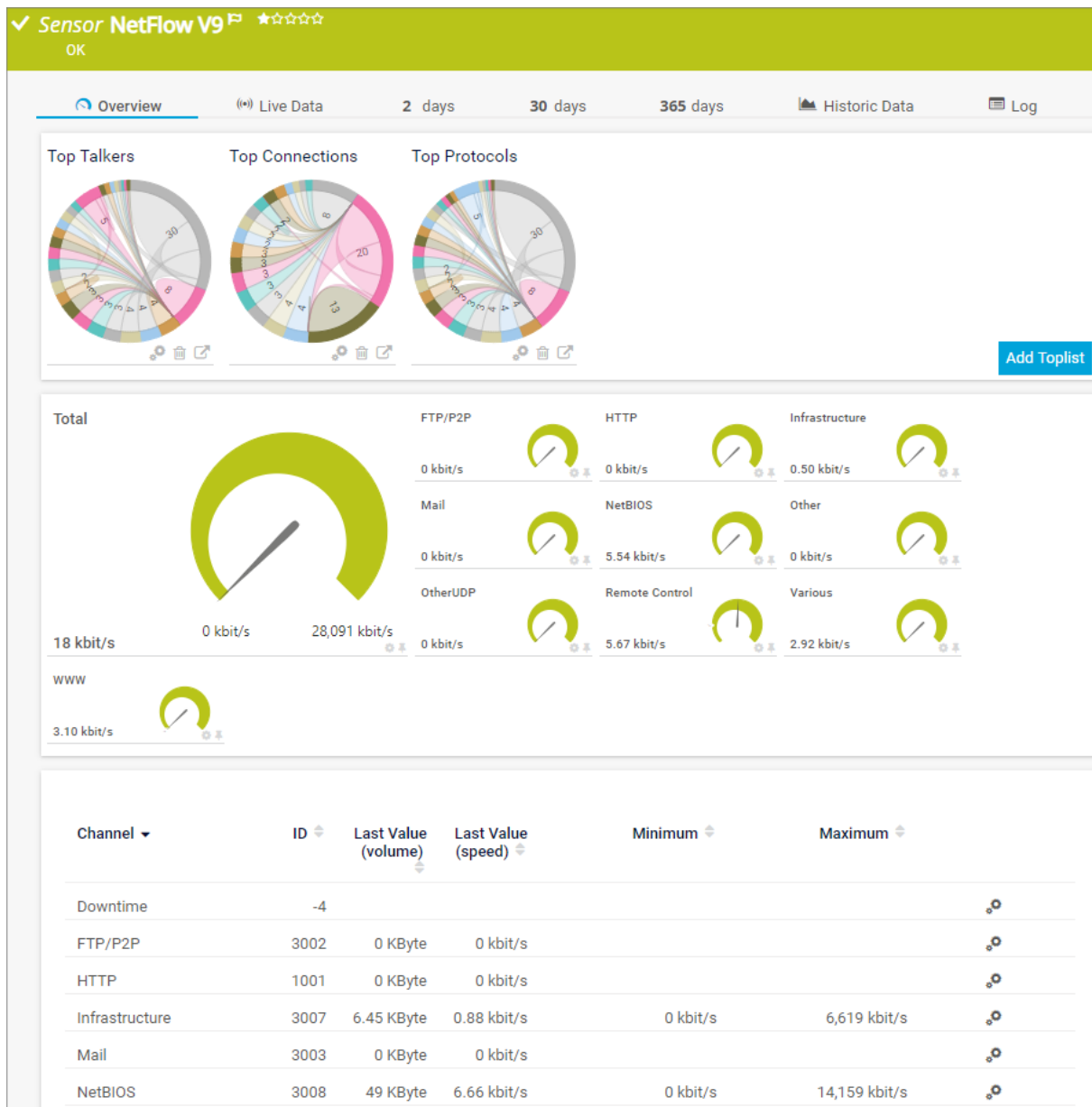
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.106 NetFlow v9 Sensor

The NetFlow v9 sensor receives traffic data from a NetFlow v9-compatible device and shows the traffic by type. This sensor has several filter options to divide traffic into different channels.

i Make sure that the sensor matches the NetFlow version that your device exports.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



NetFlow v9 Sensor

Sensor in Other Languages

- Dutch: NetFlow v9
- French: NetFlow v9

- German: NetFlow v9
- Japanese: NetFlow v9
- Portuguese: NetFlow v9
- Russian: NetFlow v9
- Simplified Chinese: NetFlow v9
- Spanish: NetFlow v9

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
 - You must enable NetFlow export of the respective version on the monitored device for this sensor to work. The device must send the flow data stream to the IP address of the probe system.
 - For cloning this sensor, the following rules apply. If you add the clone to the **same** probe, PRTG keeps the selected IP addresses on which it listens for xFlow (NetFlow, jFlow, sFlow, IPFIX) packets. If you add the clone to a **different** probe, PRTG selects **all** available IP addresses by default. You can change the selected IP addresses in the sensor settings.
 - You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
 - See the Knowledge Base: [What is the Active Flow Timeout in Flow sensors?](#)
 - See the Knowledge Base: [How can I change the default groups and channels for xFlow and Packet Sniffer sensors?](#)
- ☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag X +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ bandwidthsensor ▪ netflowsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>







NetFlow v9 Specific Settings

NetFlow v9 Specific Settings

Receive NetFlow Packets on UDP Port ⓘ	9997
Sender IP Address ⓘ	
Receive NetFlow Packets on IP Address ⓘ	<input checked="" type="checkbox"/> ▼ Probe's Local IP Addresses
	<input checked="" type="checkbox"/> 192.0.2.0
Active Flow Timeout (Minutes) ⓘ	10
Sampling Mode ⓘ	<input checked="" type="radio"/> Off <input type="radio"/> On
Stream Data Handling ⓘ	<input checked="" type="radio"/> Discard stream data (recommended) <input type="radio"/> Store stream data only for the 'Other' channel <input type="radio"/> Store all stream data

NetFlow v9 Specific Settings

Setting	Description
Receive NetFlow Packets on UDP Port	Enter the User Datagram Protocol (UDP) port number on which the flow packets are received. It must match the UDP port number in the NetFlow export options of the hardware router device. Enter an integer value. i When you configure the export, make sure that you select the appropriate NetFlow version for this sensor.
Sender IP Address	Enter the IP address of the sending device that you want to receive the NetFlow from. Enter an IP address to only receive data from a specific device or leave the field empty to receive data from any device on the specified port.
Receive NetFlow Packets on IP Address	Select the IP addresses on which PRTG listens to NetFlow packets. The list of IP addresses is specific to your setup. To select an IP address, add a check mark in front of the respective line. The IP address that you select must match the IP address in the NetFlow export options of the hardware router device. i When you configure the export, make sure that you select the appropriate NetFlow version for this sensor. i You can also select all items or cancel the selection by using the check box in the table header.

Setting	Description
Active Flow Timeout (Minutes)	<p>Enter a time span in minutes after which the sensor must receive new flow data. If the timeout elapses and the sensor receives no new data during this time, it shows the Unknown status^[197]. Enter an integer value. The maximum timeout is 60 minutes.</p> <ul style="list-style-type: none">  We recommend that you set the timeout one minute longer than the timeout in the hardware router device.  If you set this value too low, flow information might be lost.  For more details, see the Knowledge Base: What is the Active Flow Timeout in Flow sensors?  If the target device sends incorrect time information that results in wrong monitoring data, try to use 0 as active flow timeout. This ignores the start and stop information of a flow as provided by the device and accounts all data to the current point in time. It might result in spikes but all data is captured.
Sampling Mode	<p>Define if you want to use the sampling mode:</p> <ul style="list-style-type: none"> ▪ Off: Use the standard flow. ▪ On: Use the sampling mode and specify the Sampling Rate below. <p> This setting must match the setting in the xFlow exporter.</p>
Sampling Rate	<p>This setting is only visible if you select On above. Enter a number that matches the sampling rate in the exporting device. If the number is different, monitoring results will be incorrect. Enter an integer value.</p>
Stream Data Handling	<p>Define what PRTG does with the stream and packet data:</p> <ul style="list-style-type: none"> ▪ Discard stream data (recommended): Do not store the stream and packet data. ▪ Store stream data only for the 'Other' channel: Only store stream and packet data that is not otherwise filtered and is therefore accounted to the default Other channel. PRTG stores this data in the \StreamLog subfolder of the PRTG data directory^[4526] on the probe system. The file name is Streams Sensor [ID] (1).csv. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. ▪ Store all stream data: Store all stream and packet data. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> Use with caution. If you enable this setting, it can create huge data files. We recommend that you only use this setting for a short time.</p>

Channel Configuration

Channel Configuration

Group	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Content
Web	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	WWW Traffic: HTTP, HTTPS
File Transfer	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	File Transfer: FTP (Control)
Mail	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Mail Traffic: IMAP, POP3, SMTP
Chat	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Chat, Instant Messaging: IRC, AIM
Remote Control	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Remote Control: RDP, SSH, Telnet, VNC
Infrastructure	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Network Services: DHCP, DNS, Ident, ICMP, SNMP
NetBIOS	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	NetBIOS: NETBIOS
Citrix	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Citrix: Citrix
Other Protocols	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	Various: Other UDP, Other TCP

Note You can change the default settings for the selected channels. This way, you do not have to customize this setting each time that you add this sensor type to PRTG. For details, see [this article](#) in the Knowledge Base.

Channel Configuration

Setting	Description
Channel Selection	<p>Define the categories that the sensor accounts the traffic to:</p> <ul style="list-style-type: none"> ▪ Web: Internet web traffic. ▪ File Transfer: Traffic from FTP. ▪ Mail: Internet mail traffic. ▪ Chat: Traffic from chat and instant messaging. ▪ Remote Control: Traffic from remote control applications such as RDP, SSH, Telnet, and VNC. ▪ Infrastructure: Traffic from network services such as DHCP, DNS, Ident, ICMP, and SNMP. ▪ NetBIOS: Traffic from NetBIOS communication. ▪ Citrix: Traffic from Citrix applications. ▪ Other Protocols: Traffic from various other protocols via UDP and TCP. <p>For each group, you can select how many channels the sensor uses, that is, how detailed the sensor divides the traffic. For each group, choose from:</p> <ul style="list-style-type: none"> ▪ No (✘): Do not account traffic of this group in its own channel. The sensor accounts all traffic of this group to the default channel named Other. ▪ Yes (✔): Count all traffic of this group and summarize it in one channel.

Setting	Description
	<ul style="list-style-type: none"> ▪ Detail (🔍): Count all traffic of this group and further divide it into different channels. The traffic appears in several channels that you can see in the Content column. <ul style="list-style-type: none"> ⓘ Extensive use of this option can cause load problems on the probe system. We recommend that you set specific, well-chosen filters for the data that you really want to analyze. ■ You can change the default configuration for groups and channels. For details, see the Knowledge Base: How can I change the default groups and channels for xFlow and Packet Sniffer sensors?

Filtering

■ For detailed information, see section [Filter Rules](#) ¹⁸⁶⁹.

Filtering

Filters *To include and exclude specific traffic, you can define filter rules based on the following format guidelines:*

- field[filter]

Fields:

IP, Port, SourceIP, SourcePort, DestinationIP, DestinationPort, Protocol (values TCP, UDP, ICMP, OSPFIGP or any number), ToS, DSCP

Additional IPFIX fields:

Interface, ASI, InboundInterface, OutboundInterface, SourceASI, DestinationASI, MAC, SourceMAC, DestinationMAC, Mask, SourceMask, DestinationMask ('Masks' represent subnet masks in the form of a single number ('number of contiguous bits')), NextHop (IP Address), VLAN, SourceVLAN, DestinationVLAN ('VLANs' represent a VLAN identifier)

Include Filter ⓘ

Exclude Filter ⓘ

Filtering

Setting	Description
Include Filter	Define if you want to filter any traffic. If you leave this field empty, the sensor includes all traffic. To include specific traffic only, define filters using a special syntax.
Exclude Filter	First, the sensor considers the filters in Include Filter. From this subset, you can explicitly exclude traffic, using the same syntax.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ⓘ).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Primary Toplist

Primary Toplist


Primary Toplist ⓘ Top Connections

Primary Toplist

Setting	Description
Primary Toplist	<p>Define which Toplist is the primary Toplist of the sensor:</p> <ul style="list-style-type: none"> ▪ Top Talkers ▪ Top Connections

Setting	Description
	<ul style="list-style-type: none"> ▪ Top Protocols ▪ [Any custom Toplists you add] <p> PRTG shows the primary Toplist in maps when you add a Toplist object.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ^[368] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ^[142].

Scanning Interval

Click  to interrupt the [inheritance](#) ^[142].

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p> i You can change the available intervals in the system administration on PRTG on premises installations. </p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p> i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply. </p> <p> i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply. </p> <p> i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply. </p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².


Channel Unit Configuration

inherit from Root

Channel Unit Types ⓘ

Channel Type	Unit
Bytes (Bandwidth)	MB
	Mbit
	/
	second

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Toplists

For all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors, Toplists are available on the sensor's Overview tab. Using Toplists, you can review traffic data for small time periods in great detail.

 For more information, see section [Toplists](#) .

Filter Rules

The following filter rules apply to all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors.

 For more information, see section [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#) .

Field	Possible Filter Values
IP	IP address or Domain Name System (DNS) name
Port	Any number
SourceIP	IP address or Domain Name System (DNS) name
SourcePort	Any number
DestinationIP	IP address or Domain Name System (DNS) name
DestinationPort	Any number

Field	Possible Filter Values
Protocol	Transmission Control Protocol (TCP), User Datagram Protocol (UDP), Internet Control Message Protocol (ICMP), Open Shortest Path First (OSPF), any number
ToS	Type of Service (ToS): any number
DSCP	Differentiated Services Code Point (DSCP): any number

The following filter rules apply to NetFlow v9 sensors only.


Field	Possible Filter Values
Interface	Any number
ASI	Any number
InboundInterface	Any number
OutboundInterface	Any number
SenderIP	IP address of the sending device. Use this if you have several devices that send flow data on the same port, and you want to divide the traffic of each device into a different channel. Possible values: IP address or DNS name
SourceASI	Any number
DestinationASI	Any number
MAC	Physical address
SourceMAC	Physical address
DestinationMAC	Physical address
Mask	Mask values represent subnet masks in the form of a single number (number of contiguous bits).
DestinationMask	Mask values represent subnet masks in the form of a single number (number of contiguous bits).
NextHop	IP address or Domain Name System (DNS) name

Field	Possible Filter Values
VLAN	VLAN values represent a VLAN identifier (any number)
SourceVLAN	VLAN values represent a VLAN identifier (any number)
DestinationVLAN	VLAN values represent a VLAN identifier (any number)

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Chat	The traffic from chat and instant messaging (Internet Relay Chat (IRC), AOL Instant Messenger (AIM)) in bytes per second
Citrix	The traffic from Citrix applications in bytes per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
FTP/P2P	The traffic from file transfer (File Transfer Protocol (FTP)/Peer-to-Peer (P2P)) in bytes per second
Infrastructure	The traffic from network services (Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), Ident, Internet Control Message Protocol (ICMP), Simple Network Management Protocol (SNMP)) in bytes per second
Mail	The internet mail traffic (Internet Message Access Protocol (IMAP), Post Office Protocol version 3 (POP3), Simple Mail Transfer Protocol (SMTP)) in bytes per second
NetBIOS	The traffic from NetBIOS communication in bytes per second
Other	The traffic from various other protocols (User Datagram Protocol (UDP), Transmission Control Protocol (TCP)) in bytes per second
Remote Control	The traffic from remote control applications (Remote Desktop Protocol (RDP), Secure Shell (SSH), Telnet, Virtual Network Computing (VNC)) in bytes per second

Channel	Description
Total	The total traffic in bytes per second  This channel is the primary channel by default.
Various	The traffic from various other sources in bytes per second
WWW	The traffic from the web (HTTP, HTTPS) in bytes per second

More

KNOWLEDGE BASE

What is the Active Flow Timeout in Flow sensors?

- <https://kb.paessler.com/en/topic/66485>

How can I change the default groups and channels for xFlow and Packet Sniffer sensors?

- <https://kb.paessler.com/en/topic/60203>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Where is the volume line in graphs?

- <https://kb.paessler.com/en/topic/61272>





PAESSLER TOOLS

NetFlow Tester

- <https://www.paessler.com/tools/netflowtester>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

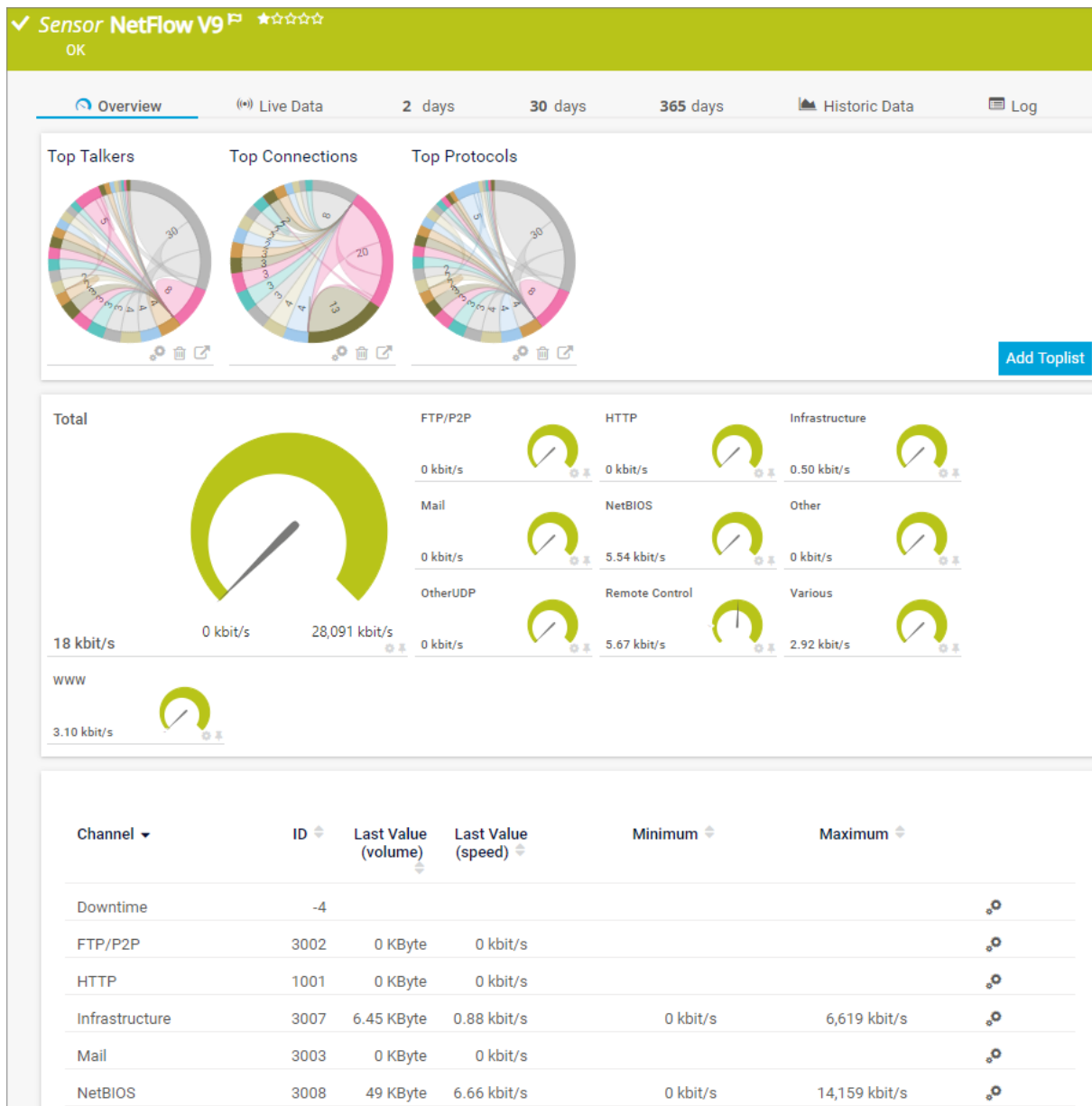
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.107 NetFlow v9 (Custom) Sensor

The NetFlow v9 (Custom) sensor receives traffic data from a NetFlow v9-compatible device and shows the traffic by type. With this sensor, you can define your own channel definitions to divide traffic into different channels.

i Make sure that the sensor matches the NetFlow version that your device exports.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



NetFlow v9 (Custom) Sensor

Sensor in Other Languages

- Dutch: NetFlow v9 (aangepast)

- French: NetFlow v9(personnalisé)
- German: NetFlow v9 (Benutzerdefiniert)
- Japanese: NetFlow v9(カスタム)
- Portuguese: NetFlow v9 (personalizado)
- Russian: NetFlow v9 ()
- Simplified Chinese: NetFlow v9 (自定义)
- Spanish: NetFlow v9 (Personalizado)

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- You must enable NetFlow export of the respective version on the monitored device for this sensor to work. The device must send the flow data stream to the IP address of the probe system.
- This sensor does not officially support more than 50 channels. Depending on the data used with this sensor, you might exceed the maximum number of supported channels. In this case, PRTG tries to display all channels. Be aware, however, that you experience limited usability and performance.
- You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
- See the Knowledge Base: [What is the Active Flow Timeout in Flow sensors?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ ⊕

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ bandwidthsensor ▪ netflowsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).</p>









NetFlow v9 Specific Settings

NetFlow v9 Specific Settings

Receive NetFlow Packets on UDP Port ⓘ	9997
Sender IP Address ⓘ	
Receive NetFlow Packets on IP Address ⓘ	<input checked="" type="checkbox"/> Probe's Local IP Addresses
	<input checked="" type="checkbox"/> 192.0.2.0
Active Flow Timeout (Minutes) ⓘ	10
Sampling Mode ⓘ	<input checked="" type="radio"/> Off <input type="radio"/> On
Channel Definition ⓘ	
Stream Data Handling ⓘ	<input checked="" type="radio"/> Discard stream data (recommended) <input type="radio"/> Store stream data only for the 'Other' channel <input type="radio"/> Store all stream data

NetFlow v9 Specific Settings

Setting	Description
Receive NetFlow Packets on UDP Port	Enter the User Datagram Protocol (UDP) port number on which the flow packets are received. It must match the UDP port number in the NetFlow export options of the hardware router device. Enter an integer value. <p>i When you configure the export, make sure that you select the appropriate NetFlow version for this sensor.</p>
Sender IP Address	Enter the IP address of the sending device that you want to receive the NetFlow from. Enter an IP address to only receive data from a specific device or leave the field empty to receive data from any device on the specified port.
Receive NetFlow Packets on IP Address	Select the IP addresses on which PRTG listens to NetFlow packets. The list of IP addresses is specific to your setup. To select an IP address, add a check mark in front of the respective line. The IP address that you select must match the IP address in the NetFlow export options of the hardware router device. <p>i When you configure the export, make sure that you select the appropriate NetFlow version for this sensor.</p>

Setting	Description
	<p> You can also select all items or cancel the selection by using the check box in the table header.</p>
Active Flow Timeout (Minutes)	<p>Enter a time span in minutes after which the sensor must receive new flow data. If the timeout elapses and the sensor receives no new data during this time, it shows the Unknown status¹⁹⁷. Enter an integer value. The maximum timeout is 60 minutes.</p> <p> We recommend that you set the timeout one minute longer than the timeout in the hardware router device.</p> <p> If you set this value too low, flow information might be lost.</p> <p> For more details, see the Knowledge Base: What is the Active Flow Timeout in Flow sensors?</p> <p> If the target device sends incorrect time information that results in wrong monitoring data, try to use 0 as active flow timeout. This ignores the start and stop information of a flow as provided by the device and accounts all data to the current point in time. It might result in spikes but all data is captured.</p>
Sampling Mode	<p>Define if you want to use the sampling mode:</p> <ul style="list-style-type: none"> ▪ Off: Use the standard flow. ▪ On: Use the sampling mode and specify the Sampling Rate below. <p> This setting must match the setting in the xFlow exporter.</p>
Sampling Rate	<p>This setting is only visible when sampling mode is On above. Enter a number that matches the sampling rate in your device that exports the xFlows. If the number is different, monitoring results will be incorrect. Enter an integer value.</p>
Channel Definition	<p>Enter a channel definition to divide the traffic into different channels. Enter each definition in one line. The sensor accounts all traffic that you do not define a channel for to the default channel Other.</p> <p> For detailed information, see section Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors⁴⁴⁸¹.</p> <p> Extensive use of many filters can cause load problems on the probe system. We recommend that you define specific, well-chosen filters for the data that you really want to analyze. We recommend that you do not use more than 20 channels in graphs and tables, and not more than 100 channels in total. For performance reasons, we recommend that you add several sensors with fewer channels each.</p>
Stream Data Handling	<p>Define what PRTG does with the stream and packet data:</p>

Setting	Description
	<ul style="list-style-type: none"> Discard stream data (recommended): Do not store the stream and packet data. Store stream data only for the 'Other' channel: Only store stream and packet data that is not otherwise filtered and is therefore accounted to the default Other channel. PRTG stores this data in the \StreamLog subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file name is Streams Sensor [ID] (1).csv. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. Store all stream data: Store all stream and packet data. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i Use with caution. If you enable this setting, it can create huge data files. We recommend that you only use this setting for a short time.</p>

Filtering

For detailed information, see section [Filter Rules](#)¹⁸⁸⁵.

Filtering

Filters To include and exclude specific traffic, you can define filter rules based on the following format guidelines:

- field[filter]

Fields:

IP, Port, SourceIP, SourcePort, DestinationIP, DestinationPort, Protocol (values TCP, UDP, ICMP, OSPFIGP or any number), ToS, DSCP

Additional IPFIX fields:

Interface, ASI, InboundInterface, OutboundInterface, SourceASI, DestinationASI, MAC, SourceMAC, DestinationMAC, Mask, SourceMask, DestinationMask ('Masks' represent subnet masks in the form of a single number ('number of contiguous bits')), NextHop (IP Address), VLAN, SourceVLAN, DestinationVLAN ('VLANs' represent a VLAN identifier)

Include Filter ⓘ

Exclude Filter ⓘ

Filtering

Setting	Description
Include Filter	Define if you want to filter any traffic. If you leave this field empty, the sensor includes all traffic. To include specific traffic only, define filters using a special syntax.
Exclude Filter	First, the sensor considers the filters in Include Filter. From this subset, you can explicitly exclude traffic, using the same syntax.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ⓘ).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Primary Toplist

Primary Toplist


Primary Toplist ⓘ Top Connections

Primary Toplist

Setting	Description
Primary Toplist	<p>Define which Toplist is the primary Toplist of the sensor:</p> <ul style="list-style-type: none"> ▪ Top Talkers ▪ Top Connections

Setting	Description
	<ul style="list-style-type: none"> ▪ Top Protocols ▪ [Any custom Toplists you add] <p> PRTG shows the primary Toplist in maps when you add a Toplist object.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[368] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².


Channel Unit Configuration

inherit from Root

Channel Unit Types ⓘ

Channel Type	Unit
Bytes (Bandwidth)	MB
	Mbit
	/
	second

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Toplists

For all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors, Toplists are available on the sensor's Overview tab. Using Toplists, you can review traffic data for small time periods in great detail.

 For more information, see section [Toplists](#) .

Filter Rules

The following filter rules apply to all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors.

 For more information, see section [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#) .

Field	Possible Filter Values
IP	IP address or Domain Name System (DNS) name
Port	Any number
SourceIP	IP address or Domain Name System (DNS) name
SourcePort	Any number
DestinationIP	IP address or Domain Name System (DNS) name
DestinationPort	Any number

Field	Possible Filter Values
Protocol	Transmission Control Protocol (TCP), User Datagram Protocol (UDP), Internet Control Message Protocol (ICMP), Open Shortest Path First (OSPF), any number
ToS	Type of Service (ToS): any number
DSCP	Differentiated Services Code Point (DSCP): any number

The following filter rules apply to NetFlow v9 sensors only.

Field	Possible Filter Values
Interface	Any number
ASI	Any number
InboundInterface	Any number
OutboundInterface	Any number
SenderIP	IP address of the sending device. Use this if you have several devices that send flow data on the same port, and you want to divide the traffic of each device into a different channel. Possible values: IP address or DNS name
SourceASI	Any number
DestinationASI	Any number
MAC	Physical address
SourceMAC	Physical address
DestinationMAC	Physical address
Mask	Mask values represent subnet masks in the form of a single number (number of contiguous bits).
DestinationMask	Mask values represent subnet masks in the form of a single number (number of contiguous bits).
NextHop	IP address or Domain Name System (DNS) name

Field	Possible Filter Values
VLAN	VLAN values represent a VLAN identifier (any number)
SourceVLAN	VLAN values represent a VLAN identifier (any number)
DestinationVLAN	VLAN values represent a VLAN identifier (any number)

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
[Custom]	The traffic by type according to the channel definition
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Other	All traffic for which no channel is defined in bytes per second
Total	The total traffic in bytes per second i This channel is the primary channel by default.

More

■ KNOWLEDGE BASE

What is the Active Flow Timeout in Flow sensors?

- <https://kb.paessler.com/en/topic/66485>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Where is the volume line in graphs?

- <https://kb.paessler.com/en/topic/61272>





✂ PAESSLER TOOLS

NetFlow Tester

- <https://www.paessler.com/tools/netflowtester>

Sensor Settings Overview

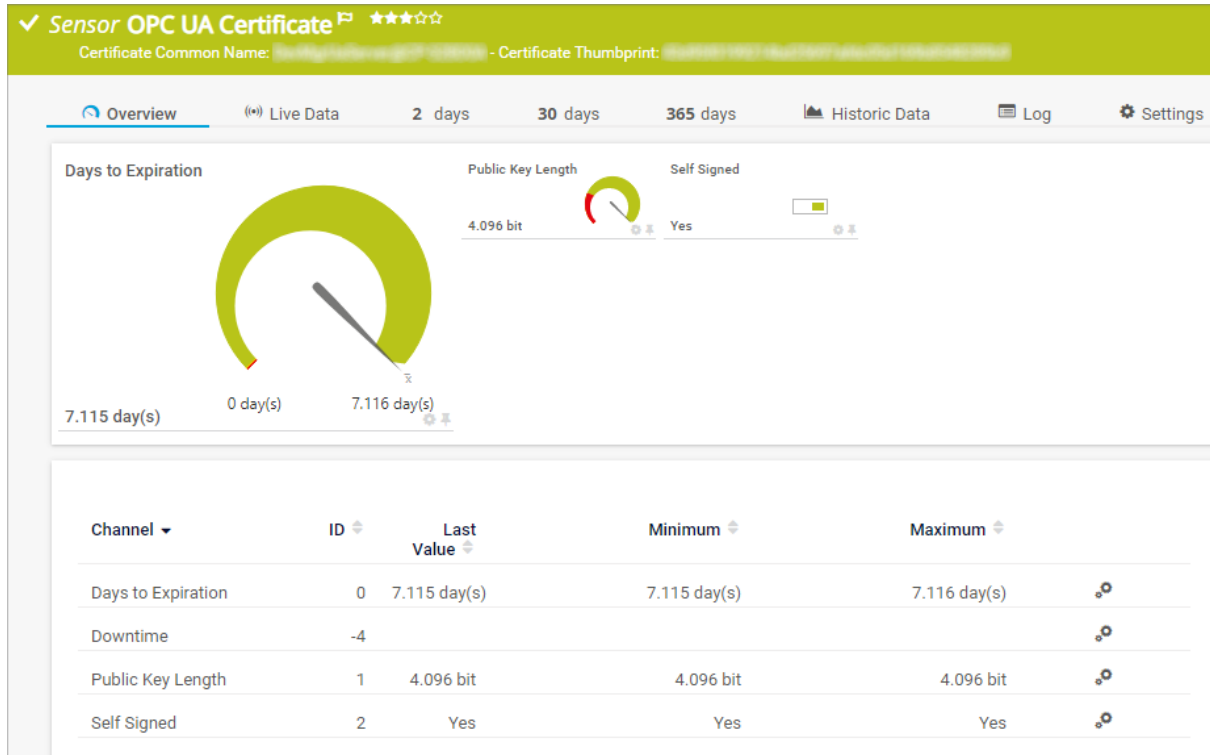
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.108 OPC UA Certificate Sensor

The OPC UA Certificate sensor monitors the certificate of an OPC Unified Architecture (OPC UA) server.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



OPC UA Certificate Sensor

Sensor in Other Languages

- Dutch: OPC UA Certificate
- French: OPC UA Certificate
- German: OPC UA Certificate
- Japanese: OPC UA Certificate
- Portuguese: OPC UA Certificate
- Russian: OPC UA Certificate
- Simplified Chinese: OPC UA Certificate
- Spanish: OPC UA Certificate

Remarks

- This sensor requires a valid port for the connection to the OPC UA server. Enter the port and, depending on the configuration, further credentials in the [Credentials for OPC UA](#) section in the settings of the parent device.
- This sensor supports the IPv6 protocol.

- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A list of tags with "exampletag" selected. There are "x" and "+" icons for removing and adding tags.
- Priority:** A star rating system showing 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ opcua ▪ opcuacertificate ▪ certificate
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display

Sensor Display

Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Debug Options


Debug Options

Result Handling ⓘ Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Days to Expiration	<p>The days to expiration with a predefined lower warning limit (28 days) and lower error limit (7 days)</p> <p>i This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Public Key Length	<p>The public key length with a predefined lower warning limit (1025 bits) and a lower error limit (1024 bits)</p>
Self Signed	<p>If a self-signed certificate is used</p>

More





■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

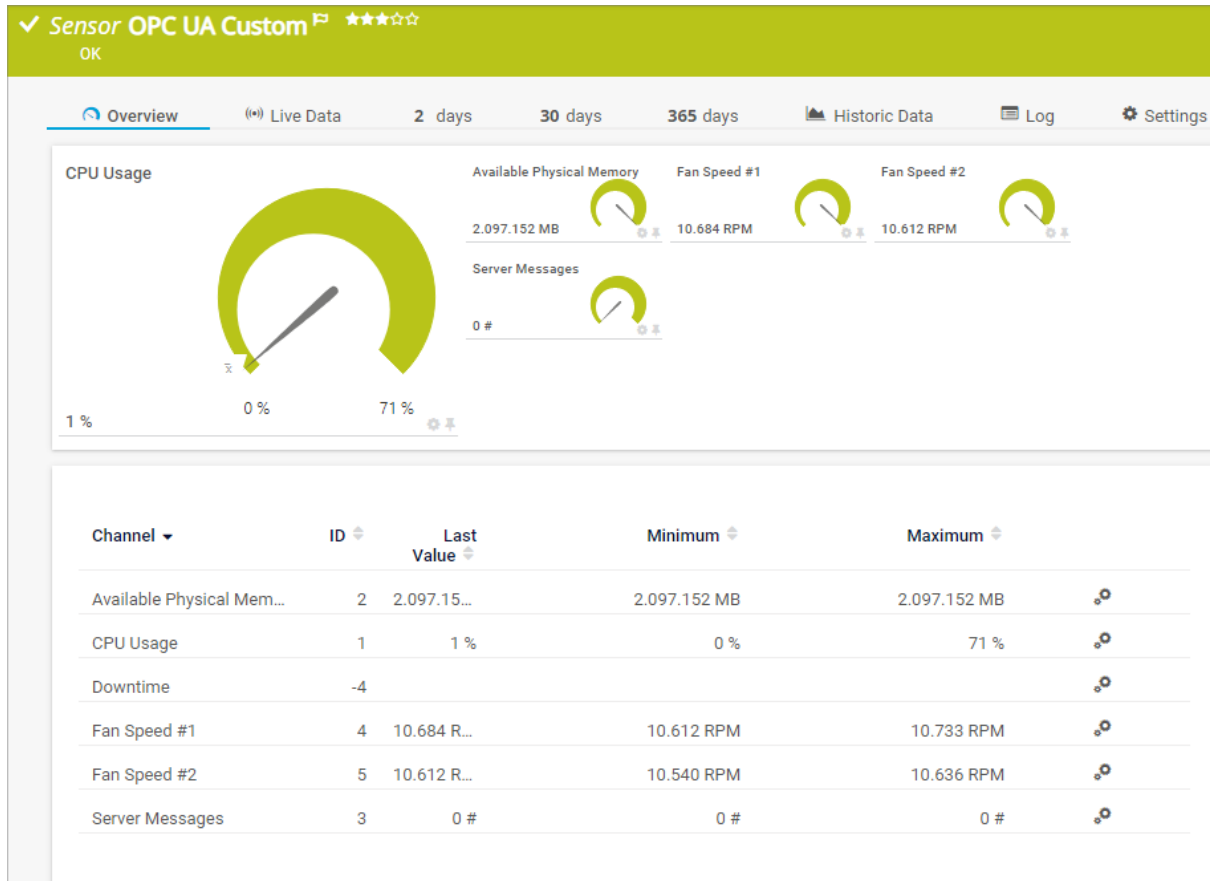
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.109 OPC UA Custom Sensor

The OPC UA Custom sensor monitors up to five numeric values returned by specific OPC Unified Architecture (OPC UA) node IDs.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



OPC UA Custom Sensor

Sensor in Other Languages

- Dutch: OPC UA Custom
- French: OPC UA Custom
- German: OPC UA Custom
- Japanese: OPC UA Custom
- Portuguese: OPC UA Custom
- Russian: OPC UA Custom
- Simplified Chinese: OPC UA Custom
- Spanish: OPC UA Custom

Remarks

- This sensor requires a valid port for the connection to the OPC UA server. Enter the port and, depending on the configuration, further credentials in the [Credentials for OPC UA](#) section in the settings of the parent device.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).
- See the Knowledge Base: [Which OPC UA data types does the OPC UA Custom sensor support?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

OPC UA Specific

Setting	Description
Channel #1 – #5 Naming Method	<p>Select the naming method for the channels of the sensor. Choose between:</p> <ul style="list-style-type: none"> ▪ Use automatic naming (default): The sensor uses the name provided by the OPC UA node. <ul style="list-style-type: none"> ⓘ You cannot use automatic naming after you created the sensor. <ul style="list-style-type: none"> ▪ Enter custom name: Enter a custom name in field Channel #1 - #5 Name. <p>Once you have created the sensor, you can change the name of the channel in the Channel Settings under Name.</p>
Channel #1 – #5 Unit	<p>Enter the unit for the numeric value that this sensor monitors.</p> <ul style="list-style-type: none"> ⓘ After sensor creation,, you can change the unit in the Channel Settings under Unit.
Channel #1 – #5 Node ID	<p>Enter the node ID from which you want to receive numeric data.</p> <ul style="list-style-type: none"> ⓘ A node ID looks like this, for example: <code>ns=1;i=1234</code> or <code>ns=2;s=test_one</code>. The sensor supports string identifiers and numeric identifiers. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Setting	Description
Channel #2 – #5	<p>You can create up to 5 different channels for this sensor. You have to define at least one data channel, so you see all available settings for Channel #1 without manually enabling it. Additionally, you can define Channel #2 up to Channel #5. To do so, choose between:</p> <ul style="list-style-type: none"> ▪ Disable (default): The sensor does not create this channel. ▪ Enable: The sensor creates this channel. Specify name, unit, and node ID for this channel below. <p>i It is not possible to enable or disable channels after sensor creation.</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a title 'Basic Sensor Settings' in blue. Below the title are three settings: 'Sensor Name' with a value of 'Example Name', 'Tags' with a value of 'exampletag' and a plus icon, and 'Priority' with a value of 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree [183], as well as in alarms [228], logs [237], notifications [403], reports [406], maps [406], libraries [407], and tickets [240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags [145] that the sensor inherits [145] from its parent device [140], parent group [139], and parent probe [139].</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> ❗ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ❗ For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ opcua ▪ opcuacustom
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

OPC UA Specific

Setting	Description
Sensor Message Node ID	<p>Optionally enter the node ID from which you want to receive a string that the sensor shows as sensor message.</p> <ul style="list-style-type: none"> ❗ A node ID looks like this, for example: <code>ns=1;i=1234</code> or <code>ns=2;s=test_one</code>. The sensor supports string identifiers and numeric identifiers. ❗ The sensor only shows the received string if the sensor is in the Up status. If the sensor enters the Down status, the sensor message shows the error message instead.
Channel #x Node ID	Shows the node ID from which you receive numeric data.


Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Debug Options


Debug Options

Result Handling **i**


Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


For more information, see section [Inheritance of Settings](#).


Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval


Scanning Interval  60 seconds



inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	The numeric values that an OPC UA server returns in up to five channels

More

KNOWLEDGE BASE

Which OPC UA data types does the OPC UA Custom sensor support?





- <https://kb.paessler.com/en/topic/89236>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3967

7.8.110 OPC UA Server Status Sensor

The OPC UA Server Status sensor monitors the server status, uptime, and diagnostic information of an OPC Unified Architecture (OPC UA) server.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



OPC UA Server Status Sensor

Sensor in Other Languages

- Dutch: OPC UA Server Status
- French: OPC UA Server Status
- German: OPC UA Server Status
- Japanese: OPC UA Server Status
- Portuguese: OPC UA Server Status

- Russian: OPC UA Server Status
- Simplified Chinese: OPC UA Server Status
- Spanish: OPC UA Server Status

Remarks

- This sensor requires a valid port for the connection to the OPC UA server. Enter the port and, depending on the configuration, further credentials in the [Credentials for OPC UA](#) section in the settings of the parent device.
- This sensor [requires](#) activated diagnostic summary information settings on your OPC UA server to create all diagnostic channels.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Detailed Requirements

Requirement	Description
Activated server diagnostics on your OPC UA server	<p>This sensor requires activated diagnostic summary information settings on your OPC UA server to create all diagnostic channels. Without activated diagnostic summary information settings, the sensor can only show the server status and the uptime.</p> <p>i Note that not all vendors support diagnostic summary information.</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ X +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ opcua ▪ opcuaserverstatus ▪ serverstatus
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings <small>3977</small>).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>



Debug Options

Debug Options


Result Handling ⓘ Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result.

Setting	Description
	<ul style="list-style-type: none"> ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click  to interrupt the inheritance.

Scanning Interval Scanning Interval 60 seconds

 inherit from Root

If a Sensor Query Fails Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour

Setting	Description
	<ul style="list-style-type: none"> ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Rejected Requests Count	The number of rejected requests

Channel	Description
Rejected Session Count	The number of rejected sessions
Security Rejected Requests Count	The number of security rejected requests
Security Rejected Session Count	The number of security rejected sessions
Server Status	<p>The server status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷¹: Running, Test ▪ Warning status: No Configuration, Shut Down, Suspended ▪ Down status: Communication Fault, Failed, Unknown <p> This channel is the primary channel by default.</p>
Session Abort Count	The number of session aborts
Session Count	The number of sessions per second
Session Timeout Count	The number of session timeouts
Subscription Count	The number of subscriptions per second
Uptime	The uptime

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

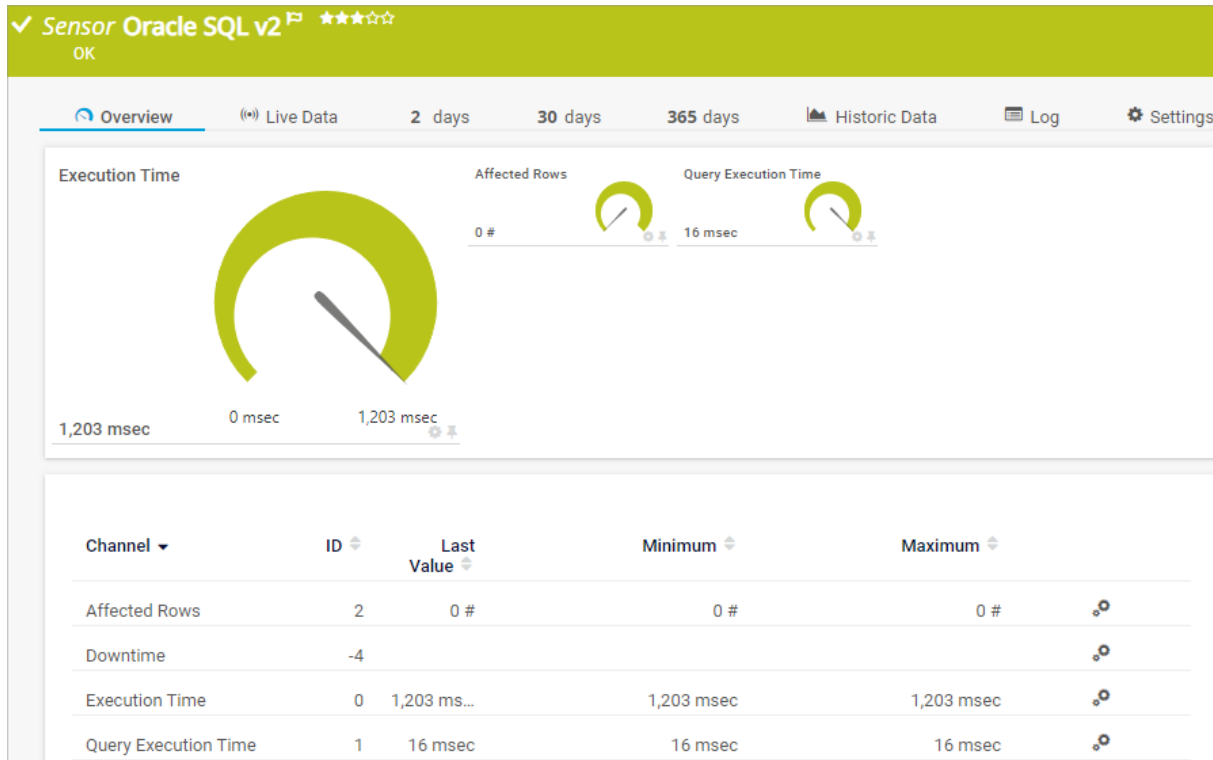
- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁹⁷

7.8.111 Oracle SQL v2 Sensor

The Oracle SQL v2 sensor monitors a database on an Oracle server and executes a query.

i The sensor can also process the data table and show the values that you define in individual channels.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Oracle SQL v2 Sensor

Sensor in Other Languages

- Dutch: Oracle SQL v2
- French: Oracle SQL v2
- German: Oracle SQL v2
- Japanese: Oracle SQL v2
- Portuguese: Oracle SQL v2
- Russian: Oracle SQL v2
- Simplified Chinese: Oracle SQL v2
- Spanish: Oracle SQL v2



Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.

- You must store your Structured Query Language (SQL) query in a file on the probe system. In a cluster, copy the file to every cluster node.
- Define credentials, custom port (if required), and timeout in the [credentials for database management systems](#) settings of the parent device, or in the settings of a group or probe above.
- This sensor supports Oracle database servers version 10.2 or higher.
- This sensor supports the IPv6 protocol.
- See section [Monitoring Databases](#) for an [example](#) for channel value selection.
- See the Knowledge Base: [How to set up the SQL v2 sensors in PRTG? Is there a guide?](#)
- See the Knowledge Base: [How can I monitor strings from an SQL database and show a sensor status depending on it?](#)
- See the Knowledge Base: [How can I monitor error tables in SQL databases?](#)
- See the Knowledge Base: [Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Data

Setting	Description
SQL Query File	<p>Select the SQL query file that includes a valid SQL statement that the sensor executes on the server with every scanning interval. The list contains SQL scripts from the \Custom Sensors\sql subfolder of the PRTG program directory on the probe system. Store your script there. If you use the script on a cluster probe, you must store the script on all cluster nodes.</p> <p>A correct expression in the file could be: <code>SELECT AVG(UnitPrice) FROM Products</code>. If you want to use transactions, separate the individual steps with semicolons ";".</p> <ul style="list-style-type: none"> i Note that with each request, PRTG transfers the full result set, so use filters and limits in your query. i The demo script Demo Serveruptime.sql is available by default. You can use the it to monitor the uptime of the target server. ■ See also the Knowledge Base: Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?
Data Processing	<p>Define whether the sensor processes data from the database:</p> <ul style="list-style-type: none"> ■ Only execute query: Only show information about the number of affected rows and the execution time of the query. Affected rows are rows that were changed by the query (for example, created, deleted, or edited). ■ Count table rows: Execute a <code>SELECT</code> statement and monitor how many rows of the data table this statement returns. ■ Process data table: Read and analyze the data table. If you select this option, the sensor counts rows with <code>SELECT</code> statements as well.
Channel #2 – #10	<p>This setting is only visible if you select Process data table above. You can define up to 10 additional channels for the data processing of this sensor. You have to define at least one data channel if you process the data table, so you automatically see all available settings for Channel #1. Specify how to handle all other possible channels:</p> <ul style="list-style-type: none"> ■ Disable: Do not create this channel. ■ Enable: Create this channel. i It is not possible to enable or disable channels after sensor creation.
Channel #x Name	<p>This setting is only visible if you select Process data table above. Enter a unique name for the channel. Enter a string. PRTG dynamically generates channels with this name as the identifier.</p> <ul style="list-style-type: none"> i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?

Setting	Description
Channel #x Mode	<p>This setting is only visible if you select Process data table above. Define how to display the determined value in the channel:</p> <ul style="list-style-type: none"> ▪ Absolute (recommended): Show the value as the sensor retrieves it from the data table. ▪ Difference: The sensor calculates and shows the difference between the last and the current value returned from the data table. <ul style="list-style-type: none"> ❗ This mode is not compatible with the unit Lookup. ❗ This mode only works if the difference between the last and the current value is positive and increases with each scanning interval. This mode does not support negative and decreasing values.
Channel #x Unit	<p>This setting is only visible if you select Process data table above. Define the unit of the channel value:</p> <ul style="list-style-type: none"> ▪ BytesBandwidth ▪ BytesMemory ▪ BytesDisk ▪ Temperature ▪ Percent ▪ TimeResponse ▪ TimeSeconds ▪ TimeHours ▪ Count ▪ CPU ▪ BytesFile ▪ SpeedDisk ▪ SpeedNet ▪ Custom ▪ Lookup <p>■ For more information about the available units, see section Custom Sensors⁴⁴⁴².</p> <p>❗ To use lookups⁴⁴⁸⁵ with this channel, select Lookup and define the lookup file in Channel #x Lookup. Do not use Custom if you use lookups with this sensor.</p> <p>❗ It is not possible to use the unit Lookup in combination with the Difference mode. You are not able to create the sensor in this case.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sqlsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Database Specific

Database Specific

Identifier **i**

Identification Parameter **i**

SID (default)

SERVICE_NAME

Database Specific

Setting	Description
Identifier	<p>Enter the Oracle System ID (SID) or the SERVICE_NAME of the database that the sensor connects to. Specify the Identification Parameter below. By default, the sensor uses the SID as the connection string.</p> <p>i You can find the SID or SERVICE_NAME in the CONNECT_DATA part of the TNSNames.ora file on the Oracle server. For example, a SID can look like this: orcl</p>
Identification Parameter	<p>Define the type of identifier that you want to use to connect to the database:</p> <ul style="list-style-type: none"> ▪ SID (default): Connect to the database instance using the SID as the connection string. ▪ SERVICE_NAME: Connect to the database instance using the SERVICE_NAME as the connection string. <p>i The type of identifier that you need to use depends on the configuration of the Oracle server.</p>

Data

Data

SQL Query File ⓘ *Demo Serveruptime.sql*

Input Parameter Handling ⓘ Do not use input parameter (default)
 Use input parameter

Transaction Handling ⓘ Do not use transaction (default)
 Use transaction and always roll back
 Use transaction and commit on success




Data Processing ⓘ *Only execute query*


Result Handling ⓘ Discard result
 Store result

Data

Setting	Description
SQL Query File	Shows the SQL script file that the sensor executes on the server. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Input Parameter Handling	Define if you want to pass a parameter to the SQL query file: <ul style="list-style-type: none"> ▪ Do not use input parameter (default): Execute the SQL query file without using variables. ▪ Use input parameter: Execute an SQL query file that contains a variable. Provide the parameter that you want to use in the query below.
Input Parameter	This setting is only visible if you select Input Parameter Handling above. Enter the parameter that you want to pass to the SQL query file. This parameter replaces the variables @prtg, :prtg, or ? in the SQL query, considering the general rules for SQL variables. You can also use PRTG placeholders for custom sensors (command-line parameters) as input parameters, for example, %sensorid or %deviceid. For details, see section Custom Sensors [444]. ⓘ Provide strings as they are and do not surround them with quotation marks. PRTG automatically and correctly inserts string parameters into the query.
Transaction Handling	Define if you want to use transactions and if they affect the database content: <ul style="list-style-type: none"> ▪ Do not use transaction (default): Do not execute transactions.

Setting	Description
Data Processing	<ul style="list-style-type: none"> ▪ Use transaction and always roll back: The query does not change data in the database. In the SQL query file, separate the single steps of the transaction with semicolons. ▪ Use transaction and commit on success: The query changes data in the database. The changes only apply if all execution steps succeed without any errors. In the SQL query file, separate the single steps of the transaction with semicolons. <p>Shows how the sensor processes data from the database.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Handle DBNull in Channel Values as	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define the sensor behavior if the query returns DBNull:</p> <ul style="list-style-type: none"> ▪ Error: Show a Down status if the query returns DBNull. ▪ Number 0: Recognize the result DBNull as a valid value and interpret it as the number 0.
Select Channel Value by	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define how to select the desired cell in the database table:</p> <ul style="list-style-type: none"> ▪ Column number: Determine the channel value by using the value in row 0 of the column whose number you specify in Channel #x Column Number. ▪ Column name: Determine the channel value by using the value in row 0 of the column whose name you specify in Channel #x Column Name. ▪ Row number: Determine the channel value by using the value in column 0 of the row whose number you specify in Channel #x Row Number. ▪ Key value pair: Determine the channel value by searching in column 0 for the key you specify in Channel #x Key and by returning the value in column 1 of the same row where the key value was found. <p>i Defining how the desired cell in the database table is selected is necessary to configure the cells that are used in the channels.</p> <p>i The option you select here also defines the method of how to optionally determine a value for the sensor message. For details, see setting Use Data Table Value in Sensor Message.</p> <p>■ For an example for channel value selection, see section Monitoring Databases ⁴³²⁵.</p>
Channel #x	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. The setting shows if the channel is disabled.</p>

Setting	Description
	<p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Channel #x Name	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Enter a unique name for the channel. Enter a string. The sensor dynamically generates channels with this name as identifier.</p> <p> If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Channel #x Column Number	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Column number for the setting Select Channel Value by. Provide the number of the column to use to determine the channel value in row 0. Enter an integer value.</p>
Channel #x Column Name	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Column name for the setting Select Channel Value by. Provide the name of the column to use to determine the channel value in row 0. Enter an integer value.</p>
Channel #x Row Number	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Row number for the setting Select Channel Value by. Provide the number of the column to use to determine the channel value in row 0. Enter an integer value.</p>
Channel #x Key	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Key value pair for the setting Select Channel Value by. Provide the key to search for in column 0 of the data table. The value in column 1 of the same row where the key value was found to use to determine the channel value. Enter a string.</p>
Channel #x Mode	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. The setting shows how you want to display the determined value in the channel.</p> <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Channel #x Unit	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define the unit of the channel value:</p> <ul style="list-style-type: none">▪ BytesBandwidth▪ BytesMemory▪ BytesDisk

Setting	Description
	<ul style="list-style-type: none"> ▪ Temperature ▪ Percent ▪ TimeResponse ▪ TimeSeconds ▪ TimeHours ▪ Count ▪ CPU ▪ BytesFile ▪ SpeedDisk ▪ SpeedNet ▪ Custom ▪ Lookup
Channel #x Custom Unit	This setting is only visible if you select the channel unit Custom above. Define a unit for the channel value. Enter a string.
Channel #x Lookup	This setting is only visible if you select the channel unit Lookup above. Select a lookup file that you want to use with this channel.
Use Data Table Value in Sensor Message	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define if the sensor message shows a value from the data table:</p> <ul style="list-style-type: none"> ▪ Disable: Do not use a custom sensor message. ▪ Enable: Define a custom sensor message with a defined value of the data table. Define the value selection below. <p>The method of how to determine a value for the sensor message is defined in the setting Select Channel Value by above.</p>
Sensor Message Column Number	This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Column number for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the number of a column. The sensor message shows the value in row 0 of this column. Enter an integer value.
Sensor Message Column Name	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Column name for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the name of a column. The sensor message shows the value in row 0 of this column. Enter a string.</p> <p> Columns start with index 0.</p>

Setting	Description
Sensor Message Row Number	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Row number for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the name of a column. The sensor message shows the value in row 0 of this column. Enter the number of a row. The sensor message shows the value in column 0 of this row. Enter an integer value.</p> <p>i Rows start with index 0.</p>
Sensor Message Key	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Key value pair for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter a key to search for in column 0 of the data table. The sensor message shows the value in column 1 of the row where the key was found. Enter a string.</p>
Sensor Message	<p>This setting is only visible if you enable Use Data Table Value in Sensor Message. Define the sensor message. Enter a string. Use the placeholder {0} at the position where you want to display the value.</p> <p>Example: The message is {0}</p> <p>i The number sign (#) is not supported in sensor messages. If a message contains a number sign, the message is clipped at this point.</p>
If Sensor Message Changes	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation.</p> <p>Define what the sensor does when the sensor message changes:</p> <ul style="list-style-type: none"> Ignore changes (default): Take no action on change. Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁶, you can use this mechanism to trigger a notification³³⁶⁷ whenever the sensor value changes.
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
Maintenance Window	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p> <p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Affected Rows	The number of rows that were addressed by the query (including SELECT statements if you process data tables)
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Execution Time	<p>The execution time of the entire request (including connection buildup, query execution, transaction handling, disconnection) in milliseconds (msec)</p> <p>i This channel is the primary channel by default.</p>
Query Execution Time	The execution time of the specified query in msec

More

■ KNOWLEDGE BASE

How to set up the SQL v2 sensors in PRTG? Is there a guide?

- <https://kb.paessler.com/en/topic/70618>

How can I monitor strings from an SQL database and show a sensor status depending on it?

- <https://kb.paessler.com/en/topic/63259>

How can I monitor error tables in SQL databases?

- <https://kb.paessler.com/en/topic/70774>

Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?

- <https://kb.paessler.com/en/topic/75372>

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

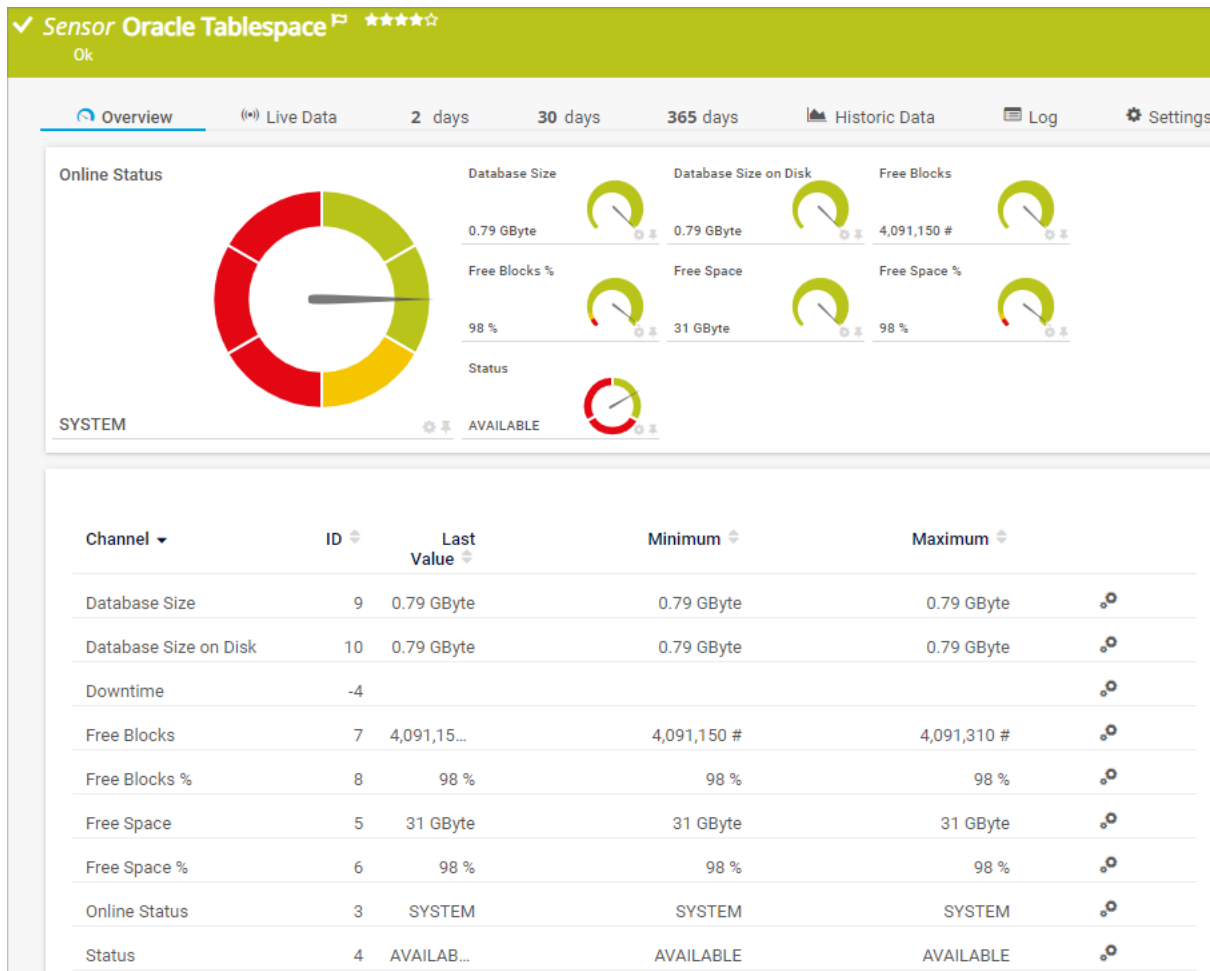
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.112 Oracle Tablespace Sensor

The Oracle Tablespace sensor monitors a tablespace on an Oracle server.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Oracle Tablespace Sensor

Sensor in Other Languages



- Dutch: Oracle Tablespace
- French: Tablespace Oracle
- German: Oracle Tablespace
- Japanese: Oracle テーブルスペース
- Portuguese: Tablespace Oracle
- Russian: Oracle
- Simplified Chinese: Oracle 表空间
- Spanish: Espacio de tablas de Oracle

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor [requires](#)¹⁹⁴³ sufficient privileges for the account that you use for the connection. We recommend that you use the **SYSTEM** account.
- This sensor does not support overprovisioning.
- This sensor supports Oracle database servers version 10.2 or higher.
- This sensor supports the IPv6 protocol.
- Define credentials, custom port (if required), and timeout in the [credentials for database management systems](#)⁴⁵⁷ settings of the parent device, or in the settings of a group or probe above.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)⁴⁴⁸⁵.
- See the Knowledge Base: [Why is my Oracle Tablespace sensor showing negative values?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Sufficient account privileges	<p>Use an account for the connection that has the privileges to see all (or specific) views. We recommend that you use the SYSTEM account if possible, otherwise grant your database administrator the SELECT_CATALOG_ROLE to the account that you use. Without sufficient privileges, you might see the error message ORA-00942: table or view does not exist.</p>

Add Sensor

The [Add Sensor](#)³⁶⁷ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

In the appearing dialog box in the Add Sensor dialog, enter an identifier to access the tablespace selection and click OK.

Working...
✕

Oracle Specific

Identifier ⓘ

Identification Method ⓘ

Use SID as identifier (default)

Use SERVICE_NAME as identifier

Sensor Name Prefix ⓘ

Do not use a prefix for the sensor name

Use SERVICE_NAME as prefix for the sensor name

Oracle Specific

ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Tablespace Specific

Setting	Description
Tablespaces	<p>Select the tablespaces that you want to monitor. PRTG creates one sensor for each tablespace that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag ✕ +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sqlsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Oracle Specific

Oracle Specific

Identifier ⓘ orcl

Identification Parameter ⓘ SID (default)
 SERVICE_NAME

Sensor Name Prefix ⓘ Do not use a prefix for the sensor name
 Use SERVICE_NAME as prefix for the sensor name

Oracle Specific

Setting	Description
Identifier	<p>Enter the Oracle System ID (SID) or the SERVICE_NAME of the database that the sensor connects to. Specify the Identification Parameter below. By default, the sensor uses the SID as the connection string.</p> <p> ⓘ You can find the SID or SERVICE_NAME in the CONNECT_DATA part of the TNSNames.ora file on the Oracle server. For example, a SID can look like this: <code>orcl</code></p>
Identification Parameter	<p>Define the type of identifier that you want to use to connect to the database:</p> <ul style="list-style-type: none"> ▪ SID (default): Connect to the database instance using the SID as the connection string. ▪ SERVICE_NAME: Connect to the database instance using the SERVICE_NAME as the connection string. <p> ⓘ The type of identifier that you need to use depends on the configuration of the Oracle server.</p>
Sensor Name Prefix	<p>Define if you want to use the SERVICE_NAME as the prefix for the sensor name:</p> <ul style="list-style-type: none"> ▪ Do not use a prefix for the sensor name: Only show the name of the tablespace that this sensor monitors. ▪ Use SERVICE_NAME as prefix for the sensor name: Add the SERVICE_NAME to the beginning of the sensor name. <p> ⓘ If you have multiple databases on your Oracle server, use the SERVICE_NAME as the prefix to distinguish the tablespaces that you monitor.</p>

Tablespace Specific

Tablespace Specific

Tablespaces ⓘ SYSAUX

Tablespace Specific

Setting	Description
Tablespaces	<p>Shows the tablespace that this sensor monitors.</p> <p>ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking ⚙ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ⓘ).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Database Size	The size of the database
Database Size On Disk	The size of the database on disk (managed tablespace)

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Blocks	The number of free blocks
Free Blocks %	The number of free blocks in percent
Free Space	The free space in bytes
Free Space %	The free space in percent
Online Status	<p>The online status</p> <ul style="list-style-type: none"> Up status¹⁹⁷: Online, System Warning status: Recover Down status: Offline, Sysoff, Unknown <p>i This channel is the primary channel by default.</p>
Status	<p>The status</p> <ul style="list-style-type: none"> Up status: Available Down status: Invalid, Unknown

More

■ KNOWLEDGE BASE

Why is my Oracle Tablespace sensor showing negative values?

- <https://kb.paessler.com/en/topic/79066>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²

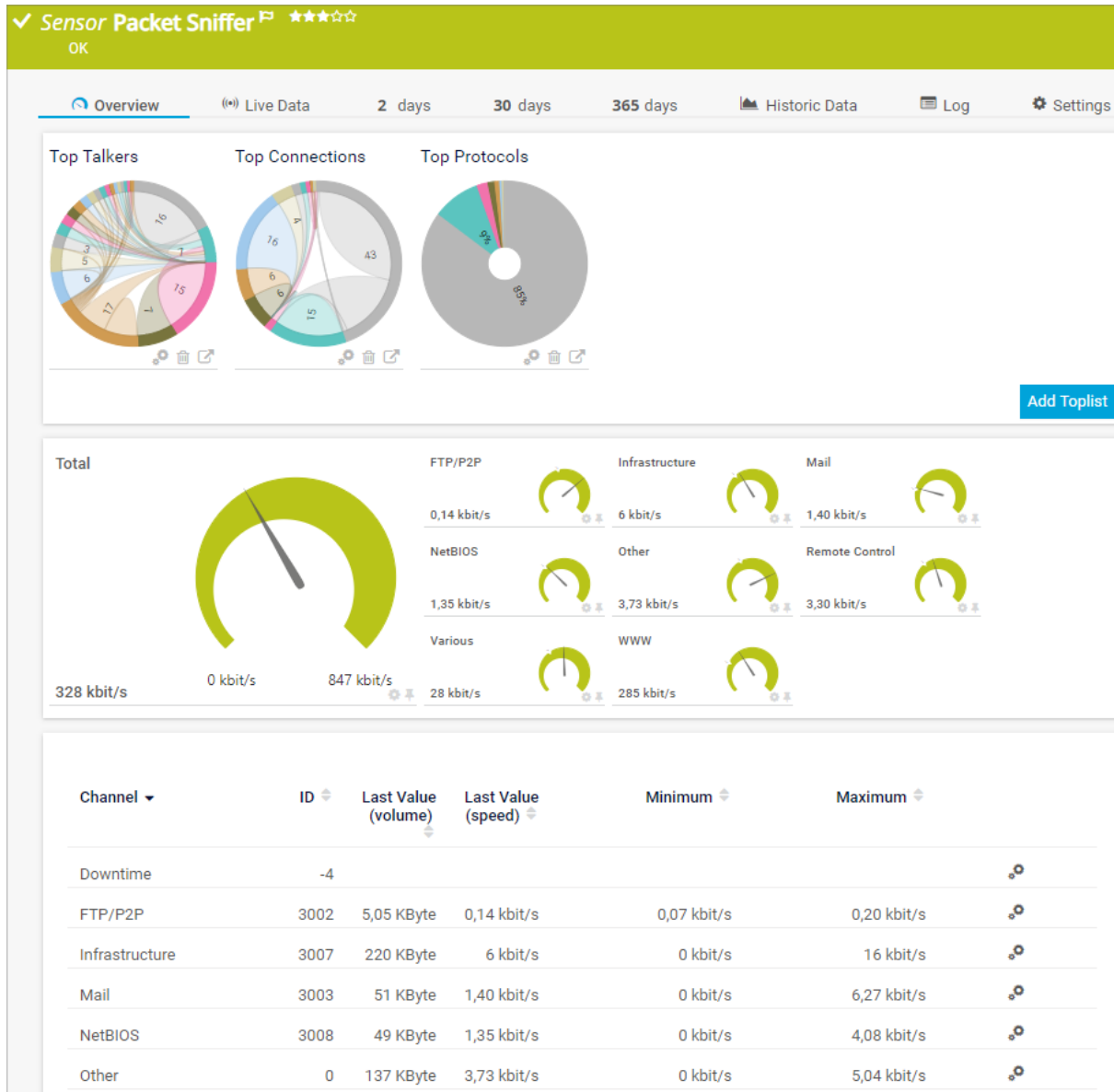
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.113 Packet Sniffer Sensor

The Packet Sniffer sensor monitors the headers of data packets that pass a local network card using a built-in packet sniffer. You can choose from predefined channels.

i The sensor analyzes only header traffic.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Packet Sniffer Sensor

Sensor in Other Languages

- Dutch: Packet Sniffer
- French: Packet sniffing
- German: Packet Sniffer

- Japanese: パケットスニファー
- Portuguese: Sniffer de pacotes
- Russian:
- Simplified Chinese: 数据包嗅探程序
- Spanish: Examen de paquetes

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- By default, this sensor works only on a probe device.
- This sensor supports the IPv6 protocol.
- Using Network Mapper (Nmap) on the parent probe system might cause high CPU load. If you have this issue, restarting the PRTG probe service might help.
- See the Knowledge Base: [How can I change the default groups and channels for xFlow and Packet Sniffer sensors?](#)

i By default, you can only monitor traffic passing the probe system where the probe device with the sensor is set up. To monitor other traffic in your network, you can configure a monitoring port (if available) that the switch sends a copy of all traffic to. You can then physically connect this port to a network card of the probe system (either local probe or remote probe system). This way, PRTG can analyze the complete traffic that passes through the switch. This feature of your hardware might be called Switched Port Analyzer (SPAN), port mirroring, or port monitoring.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ bandwidthsensor ▪ sniffersensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).</p>

Sniffer Specific

 For detailed information on filters, see section [Filter Rules](#)^[196].

Sniffer Specific

Filters To include and exclude specific traffic, you can define filter rules based on the following format guidelines:

- field[filter]

Fields are:
IP, Port, SourceIP, SourcePort, DestinationIP, DestinationPort, Protocol (values TCP, UDP, ICMP, OSPFIGP, or any number), ToS, DSCP

Additional Sniffer Fields:
MAC, SourceMAC, DestinationMAC, EtherType (values IPV4, ARP, RARP, APPLE, AARP, IPV6, IPXold, IPX, or any number)

Include Filter

Exclude Filter

Network Adapters

<input checked="" type="checkbox"/>	Network Adapter
<input checked="" type="checkbox"/>	NdisWan Adapter ()
<input checked="" type="checkbox"/>	Intel(R) Ethernet Connection I2...
<input checked="" type="checkbox"/>	Adapter for loopback traffic ca...

Stream Data Handling Discard stream data (recommended)
 Store stream data only for the 'Other' channel
 Store all stream data

Sniffer Specific

Setting	Description
Include Filter	Define if you want to filter any traffic. If you leave this field empty, the sensor includes all traffic. To include specific traffic only, define filters using a special syntax.
Exclude Filter	First, the sensor considers the filters in Include Filter. From this subset, you can explicitly exclude traffic, using the same syntax.
Network Adapters	<p>Select the network adapters that this sensor monitors. You see a list of all adapters that are available on the probe system. To select an adapter, enable the check box in front of the respective name.</p> <p>i You can also select all items or cancel the selection by using the check box in the table header.</p> <p>i You cannot change this setting if the probe is not connected.</p>
Stream Data Handling	<p>Define what PRTG does with the stream and packet data:</p> <ul style="list-style-type: none"> ▪ Discard stream data (recommended): Do not store the stream and packet data.

Setting	Description
	<ul style="list-style-type: none"> Store stream data only for the 'Other' channel: Only store stream and packet data that is not otherwise filtered and is therefore accounted to the default Other channel. PRTG stores this data in the \StreamLog subfolder of the PRTG data directory on the probe system. The file name is <code>Streams Sensor [ID] (1).csv</code>. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. Store all stream data: Store all stream and packet data. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i Use with caution. If you enable this setting, it can create huge data files. We recommend that you only use this setting for a short time.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Channel Configuration

Channel Configuration

Channel Selection	Group	✕	✓	🔍	Content
<input type="radio"/>	Web	<input checked="" type="radio"/>	<input type="radio"/>	...	WWW Traffic: HTTP, HTTPS
<input type="radio"/>	File Transfer	<input checked="" type="radio"/>	<input type="radio"/>	...	File Transfer: FTP (Control)
<input type="radio"/>	Mail	<input checked="" type="radio"/>	<input type="radio"/>	...	Mail Traffic: IMAP, POP3, SMTP
<input type="radio"/>	Chat	<input checked="" type="radio"/>	<input type="radio"/>	...	Chat, Instant Messaging: IRC, AIM
<input type="radio"/>	Remote Control	<input checked="" type="radio"/>	<input type="radio"/>	...	Remote Control: RDP, SSH, Telnet, VNC
<input type="radio"/>	Infrastructure	<input checked="" type="radio"/>	<input type="radio"/>	...	Network Services: DHCP, DNS, Ident, ICMP, SNMP
<input type="radio"/>	NetBIOS	<input checked="" type="radio"/>	<input type="radio"/>	...	NetBIOS: NETBIOS
<input type="radio"/>	Citrix	<input checked="" type="radio"/>	<input type="radio"/>	...	Citrix: Citrix
<input type="radio"/>	Other Protocols	<input checked="" type="radio"/>	<input type="radio"/>	...	Various: Other UDP, Other TCP

Note You can change the default settings for the selected channels. This way, you do not have to customize this setting each time that you add this sensor type to PRTG. For details, see [this article](#) in the Knowledge Base.

Channel Configuration

Setting	Description
Channel Selection	<p>Define the categories that the sensor accounts the traffic to:</p> <ul style="list-style-type: none"> Web: Internet web traffic. File Transfer: Traffic from FTP. Mail: Internet mail traffic. Chat: Traffic from chat and instant messaging. Remote Control: Traffic from remote control applications such as RDP, SSH, Telnet, and VNC.

Setting	Description
	<ul style="list-style-type: none"> ▪ Infrastructure: Traffic from network services such as DHCP, DNS, Ident, ICMP, and SNMP. ▪ NetBIOS: Traffic from NetBIOS communication. ▪ Citrix: Traffic from Citrix applications. ▪ Other Protocols: Traffic from various other protocols via UDP and TCP. <p>For each group, you can select how many channels the sensor uses, that is, how detailed the sensor divides the traffic. For each group, choose from:</p> <ul style="list-style-type: none"> ▪ No (✘): Do not account traffic of this group in its own channel. The sensor accounts all traffic of this group to the default channel named Other. ▪ Yes (✔): Count all traffic of this group and summarize it in one channel. ▪ Detail (🔍): Count all traffic of this group and further divide it into different channels. The traffic appears in several channels that you can see in the Content column. <ul style="list-style-type: none"> ⓘ Extensive use of this option can cause load problems on the probe system. We recommend that you set specific, well-chosen filters for the data that you really want to analyze. <p>■ You can change the default configuration for groups and channels. For details, see the Knowledge Base: How can I change the default groups and channels for xFlow and Packet Sniffer sensors?</p>

Sensor Display


Sensor Display

Primary Channel Downtime

Graph Type
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	Define how different channels are shown for this sensor:


Setting	Description
	<ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Primary Toplist


Primary Toplist

Primary Toplist 
Top Connections

Primary Toplist

Setting	Description
Primary Toplist	<p>Define which Toplist is the primary Toplist of the sensor:</p> <ul style="list-style-type: none"> Top Talkers Top Connections Top Protocols [Any custom Toplists you add] <p> PRTG shows the primary Toplist in maps when you add a Toplist object.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[368] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval


Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited



Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².


Channel Unit Configuration

 inherit from  Root

Channel Unit Types ⁱ



Channel Type	Unit
Bytes (Bandwidth)	MB ▼
	Mbit ▼
	/
	second ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Toplists

For all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors, Toplists are available on the sensor's Overview tab. Using Toplists, you can review traffic data for small time periods in great detail.

 For more information, see section [Toplists](#) .

Filter Rules

The following filter rules apply to all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors.

 For more information, see section [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#) .

Field	Possible Filter Values
IP	IP address or Domain Name System (DNS) name
Port	Any number
SourceIP	IP address or Domain Name System (DNS) name
SourcePort	Any number
DestinationIP	IP address or Domain Name System (DNS) name
DestinationPort	Any number

Field	Possible Filter Values
Protocol	Transmission Control Protocol (TCP), User Datagram Protocol (UDP), Internet Control Message Protocol (ICMP), Open Shortest Path First (OSPF), any number
ToS	Type of Service (ToS): any number
DSCP	Differentiated Services Code Point (DSCP): any number


The following filter rules apply to Packet Sniffer sensors only.

Field	Possible Filter Values
MAC	Physical address
SourceMAC	Physical address
DestinationMAC	Physical address
EtherType	IPV4, ARP, RARP, APPLE, AARP, IPV6, IPXold, IPX, any number
VlanPCP	IEEE 802.1Q VLAN Priority Code Point
VlanID	IEEE 802.1Q VLAN Identifier
TrafficClass	IPv6 Traffic Class: corresponds to TOS used with IPv4
FlowLabel	IPv6 Flow Label

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Chat	The traffic from chat and instant messaging (Internet Relay Chat (IRC), AOL Instant Messenger (AIM)) in bytes per second
Citrix	The traffic from Citrix applications in bytes per second

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
FTP/P2P	The traffic from file transfer (File Transfer Protocol (FTP)/Peer-to-Peer (P2P)) in bytes per second
Infrastructure	The traffic from network services (Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), Ident, Internet Control Message Protocol (ICMP), Simple Network Management Protocol (SNMP)) in bytes per second
Mail	The internet mail traffic (Internet Message Access Protocol (IMAP), Post Office Protocol version 3 (POP3), Simple Mail Transfer Protocol (SMTP)) in bytes per second
NetBIOS	The traffic from NetBIOS communication in bytes per second
Other	The traffic from various other protocols (User Datagram Protocol (UDP), Transmission Control Protocol (TCP)) in bytes per second
Remote Control	The traffic from remote control applications (Remote Desktop Protocol (RDP), Secure Shell (SSH), Telnet, Virtual Network Computing (VNC)) in bytes per second
Total	The total traffic in bytes per second  This channel is the primary channel by default.
Various	The traffic from various other sources in bytes per second
WWW	The traffic from the web (HTTP, HTTPS) in bytes per second

More

KNOWLEDGE BASE

How can I change the default groups and channels for xFlow and Packet Sniffer sensors?

- <https://kb.paessler.com/en/topic/60203>

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

Where is the volume line in graphs?

- <https://kb.paessler.com/en/topic/61272>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

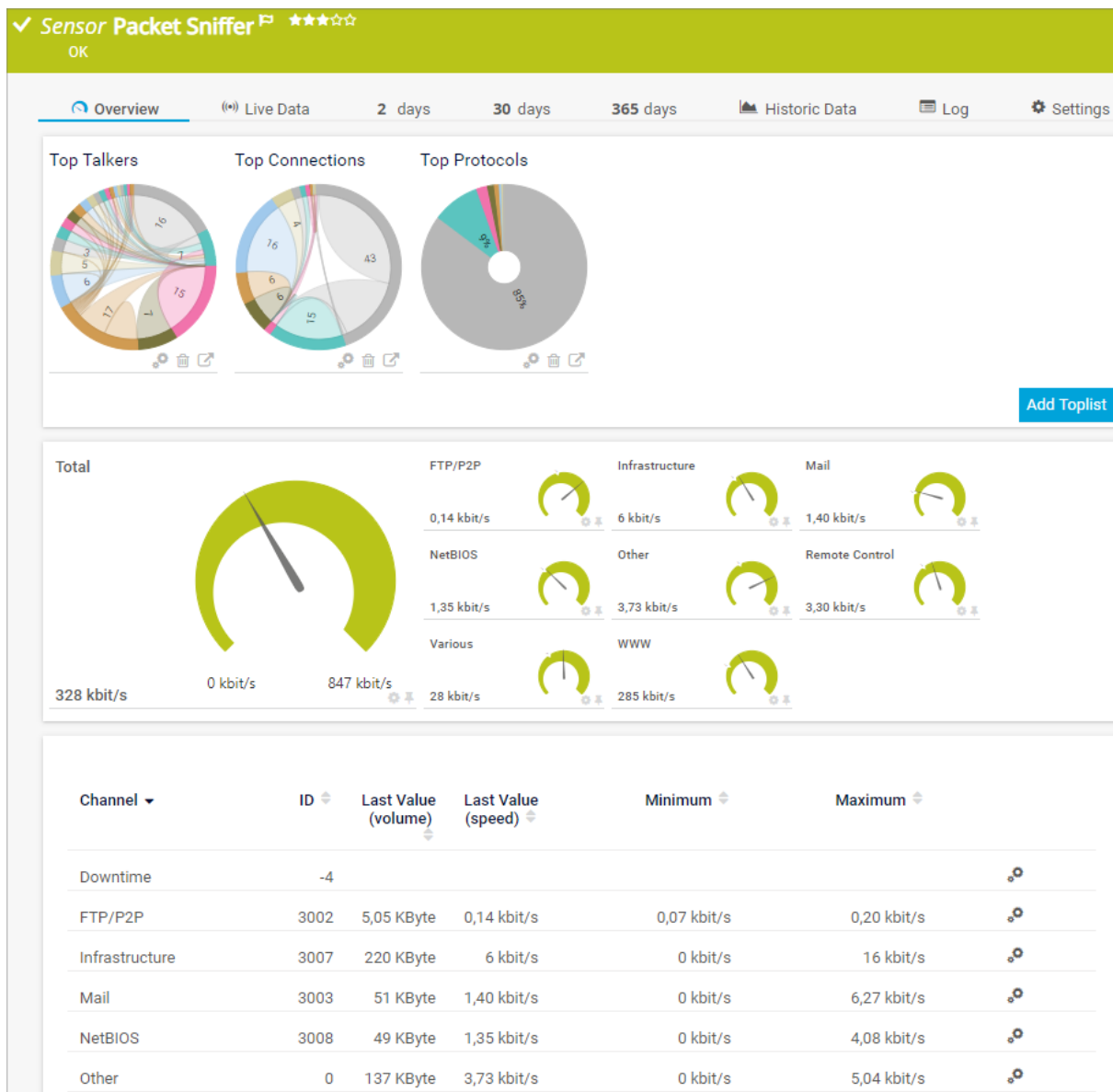
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.114 Packet Sniffer (Custom) Sensor

The Packet Sniffer (Custom) sensor monitors the headers of data packets that pass a local network card using a built-in packet sniffer. With this sensor, you can define your own channel definitions to divide traffic into different channels.

- ❗ The sensor analyzes only header traffic.
- ❗ This sensor does not have any predefined channels.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Packet Sniffer (Custom) Sensor


Sensor in Other Languages


- Dutch: Packet Sniffer (Aangepast)

- French: Packet Sniffer (personnalisé)
- German: Packet Sniffer (Benutzerdef.)
- Japanese: パケットスニフアー(カスタム)
- Portuguese: Sniffer de pacotes (Customizado)
- Russian: ()
- Simplified Chinese: 数据包嗅探程序 (自定义)
- Spanish: Examen de paquetes (personalizado)

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- By default, this sensor works only on a probe device.
- This sensor supports the IPv6 protocol.
- This sensor does not officially support more than 50 channels. Depending on the data used with this sensor, you might exceed the maximum number of supported channels. In this case, PRTG tries to display all channels. Be aware, however, that you experience limited usability and performance.

 By default, you can only monitor traffic passing the probe system where the probe device with the sensor is set up. To monitor other traffic in your network, you can configure a monitoring port (if available) that the switch sends a copy of all traffic to. You can then physically connect this port to a network card of the probe system (either local probe or remote probe system). This way, PRTG can analyze the complete traffic that passes through the switch. This feature of your hardware might be called Switched Port Analyzer (SPAN), port mirroring, or port monitoring.

 You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag X +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree¹⁸³, as well as in alarms²²⁸, logs²³⁷, notifications⁴⁰³, reports⁴⁰⁶, maps⁴⁰⁵, libraries⁴⁰⁷, and tickets²⁴⁰.</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags¹⁴⁵ that the sensor inherits¹⁴⁵ from its parent device¹⁴⁰, parent group¹³⁹, and parent probe¹³⁹.</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited¹⁴⁵.</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ bandwidthsensor ▪ sniffersensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Sniffer Specific

■ For detailed information on filters, see section [Filter Rules](#)¹⁹⁸.

Sniffer Specific

Filters *To include and exclude specific traffic, you can define filter rules based on the following format guidelines:*

- field[filter]

Fields are:
IP, Port, SourceIP, SourcePort, DestinationIP, DestinationPort, Protocol (values TCP, UDP, ICMP, OSPFIGP, or any number), ToS, DSCP

Additional Sniffer Fields:
MAC, SourceMAC, DestinationMAC, EtherType (values IPV4, ARP, RARP, APPLE, AARP, IPV6, IPXold, IPX, or any number)

Include Filter

Exclude Filter

Channel Definition





Network Adapters

- Network Adapter
- NdisWan Adapter ()
- Intel(R) Ethernet Connection I2...
- Adapter for loopback traffic ca...

Stream Data Handling Discard stream data (recommended)
 Store stream data only for the 'Other' channel
 Store all stream data


Sniffer Specific


Setting	Description
Include Filter	Define if you want to filter any traffic. If you leave this field empty, the sensor includes all traffic. To include specific traffic only, define filters using a special syntax.
Exclude Filter	First, the sensor considers the filters in Include Filter. From this subset, you can explicitly exclude traffic, using the same syntax.
Channel Definition	<p>Enter a channel definition to divide the traffic into different channels. Enter each definition in one line. The sensor accounts all traffic that you do not define a channel for to the default channel Other.</p> <p>■ For detailed information, see section Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors.</p> <p>i Extensive use of many filters can cause load problems on the probe system. We recommend that you define specific, well-chosen filters for the data that you really want to analyze. We recommend that you do not use more than 20 channels in graphs and tables, and not more than 100 channels in total. For performance reasons, we recommend that you add several sensors with fewer channels each.</p>

Setting	Description
Network Adapters	<p>Select the network adapters that this sensor monitors. You see a list of all adapters that are available on the probe system. To select an adapter, enable the check box in front of the respective name.</p> <ul style="list-style-type: none">  You can also select all items or cancel the selection by using the check box in the table header.  You cannot change this setting if the probe is not connected.
Stream Data Handling	<p>Define what PRTG does with the stream and packet data:</p> <ul style="list-style-type: none"> ▪ Discard stream data (recommended): Do not store the stream and packet data. ▪ Store stream data only for the 'Other' channel: Only store stream and packet data that is not otherwise filtered and is therefore accounted to the default Other channel. PRTG stores this data in the \StreamLog subfolder of the PRTG data directory on the probe system. The file name is <code>Streams Sensor [ID] (1).csv</code>. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. ▪ Store all stream data: Store all stream and packet data. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <ul style="list-style-type: none">  Use with caution. If you enable this setting, it can create huge data files. We recommend that you only use this setting for a short time.  In a cluster, PRTG stores the result in the PRTG data directory of the master node.

Sensor Display



Sensor Display


Primary Channel  Downtime

Graph Type  Show channels independently (default)

Stack channels on top of each other

Sensor Display


Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <ul style="list-style-type: none">  You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.

Setting	Description
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Primary Toplist

Primary Toplist Primary Toplist ⓘ Top Connections

Primary Toplist

Setting	Description
Primary Toplist	<p>Define which Toplist is the primary Toplist of the sensor:</p> <ul style="list-style-type: none"> Top Talkers Top Connections Top Protocols [Any custom Toplists you add] <p> PRTG shows the primary Toplist in maps when you add a Toplist object.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None ▼




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited



Access Rights

Setting	Description
User Group Access	<p>Define the user groups ¹⁴² that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².


Channel Unit Configuration

 inherit from  Root

Channel Unit Types ⁱ

Channel Type	Unit
Bytes (Bandwidth)	MB ▼
	Mbit ▼
	/
	second ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Toplists

For all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors, Toplists are available on the sensor's Overview tab. Using Toplists, you can review traffic data for small time periods in great detail.

 For more information, see section [Toplists](#) .

Filter Rules

The following filter rules apply to all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors.

 For more information, see section [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#) .

Field	Possible Filter Values
IP	IP address or Domain Name System (DNS) name
Port	Any number
SourceIP	IP address or Domain Name System (DNS) name
SourcePort	Any number
DestinationIP	IP address or Domain Name System (DNS) name
DestinationPort	Any number

Field	Possible Filter Values
Protocol	Transmission Control Protocol (TCP), User Datagram Protocol (UDP), Internet Control Message Protocol (ICMP), Open Shortest Path First (OSPF), any number
ToS	Type of Service (ToS): any number
DSCP	Differentiated Services Code Point (DSCP): any number


The following filter rules apply to Packet Sniffer sensors only.

Field	Possible Filter Values
MAC	Physical address
SourceMAC	Physical address
DestinationMAC	Physical address
EtherType	IPV4, ARP, RARP, APPLE, AARP, IPV6, IPXold, IPX, any number
VlanPCP	IEEE 802.1Q VLAN Priority Code Point
VlanID	IEEE 802.1Q VLAN Identifier
TrafficClass	IPv6 Traffic Class: corresponds to TOS used with IPv4
FlowLabel	IPv6 Flow Label

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
[Custom]	The traffic by type according to the channel definition
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
Other	All traffic for which no channel is defined in bytes per second
Total	The total traffic in bytes per second  This channel is the primary channel by default.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

Where is the volume line in graphs?

- <https://kb.paessler.com/en/topic/61272>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

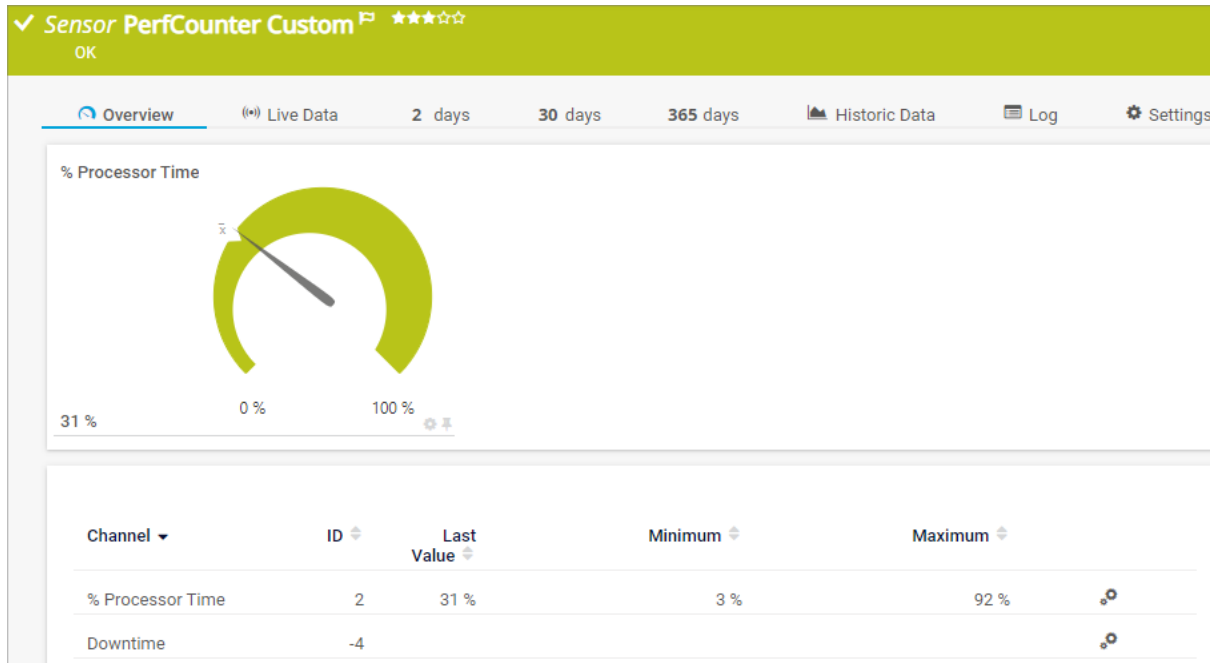
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.115 PerfCounter Custom Sensor

The PerfCounter Custom sensor monitors a configured set of Windows performance counters. You can define your own channels.

i This sensor does not have any predefined channels.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



PerfCounter Custom Sensor

Sensor in Other Languages

- Dutch: Prestatie Meters Klantspecifiek
- French: PerfCounter personnalisé
- German: Leistungsindikator (benutzerdef.)
- Japanese: パフォーマンスカウンターカスタム
- Portuguese: PerfCounter (Customizado)
- Russian: PerfCounter
- Simplified Chinese: 性能计数器自定义
- Spanish: PerfCounter Personalizado

Remarks

- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires that the Remote Registry Windows service runs on the target computer.
- This sensor requires Windows Server 2008 R2 or later on the probe system.
- You cannot add different performance counters with the same name to one sensor.

- If a performance counter contains angle brackets (< or >), do not edit the channel settings because this might cause an error.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- See the Knowledge Base: [How can I find out the names of available performance counters?](#)
- See the Knowledge Base: [My performance counter sensor does not work. What can I do?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Windows credentials	<p>This sensor requires credentials for Windows systems^[452] in the settings of the parent device. Preferably, use Windows domain credentials.</p> <ul style="list-style-type: none"> ❗ If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, a connection via performance counters is not possible. ❗ The user account has to be a member of the Performance Monitor Users user group on the target system.
Windows version	<p>For this sensor to work with Windows performance counters, make sure that a Windows version 2008 R2 or later is installed on the probe system (on every cluster node, if on a cluster probe).</p>
Remote Registry service	<p>For this sensor to work with Windows performance counters, make sure that the Remote Registry Windows service runs on the target computer. If this service does not run, a connection via performance counters is not possible.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Performance Counter Settings

Setting	Description
List of Counters	<p>Enter the performance counters that you want to query. Enter each counter in one line. PRTG creates one channel for each performance counter that you select. Use the following syntax: the name of the counter, followed by two colons (::), and the unit.</p> <p>Example: \Processor(_Total)\% Processor Time::%</p> <p>i You cannot monitor different performance counters with the same name in one sensor. The sensor uses the performance counter as the channel name, so this would create duplicate channels, which PRTG does not support. If you want to monitor different performance counters with the same name, add one sensor for each counter. You can also create a custom sensor³⁹⁷². For example, you can write a PowerShell query that connects to the target device, retrieves the desired counters with the Get-Counter cmdlet, and reports them to PRTG as individual channels.</p> <p>i If a custom performance counter includes angle brackets (< or >), do not edit the channel settings³⁹⁷⁷ (for example, limits) after sensor creation. This might lead to a malfunctioning sensor.</p>
Mode	<p>Determine if the sensor displays the returned value as an absolute value or if it displays the difference between the last and the current value:</p> <ul style="list-style-type: none"> Absolute (recommended): Display the returned value as an absolute value. Difference: Display the difference between last and current value. <p>i Make sure that all performance counters that you monitor are capable of this mode.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name **i**

Example Name

Tags **i**

✕ +

Priority **i**

★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree , as well as in alarms , logs , notifications , reports , maps , libraries , and tickets .
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited . ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ performancecounter ▪ performancecountercustom
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Performance Counter Settings

Performance Counter Settings

List of Counters ⓘ
\546\438::1/sec

Value Display Mode ⓘ
Absolute (recommended)

Performance Counter Settings

Setting	Description
List of Counters	Shows the performance counters that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Value Display Mode	Shows the mode in which the sensor displays the returning values. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ⓘ).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule None ▼

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
[Custom]	<p>The Windows performance counters in different channels</p> <p>■ To find available performance counters and their names on the target system, see the Knowledge Base: How can I find out the names of available performance counters?</p>

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

More

KNOWLEDGE BASE

How can I find out the names of available performance counters?





- <https://kb.paessler.com/en/topic/50673>

My performance counter sensor does not work. What can I do?

- <https://kb.paessler.com/en/topic/59804>

Sensor Settings Overview

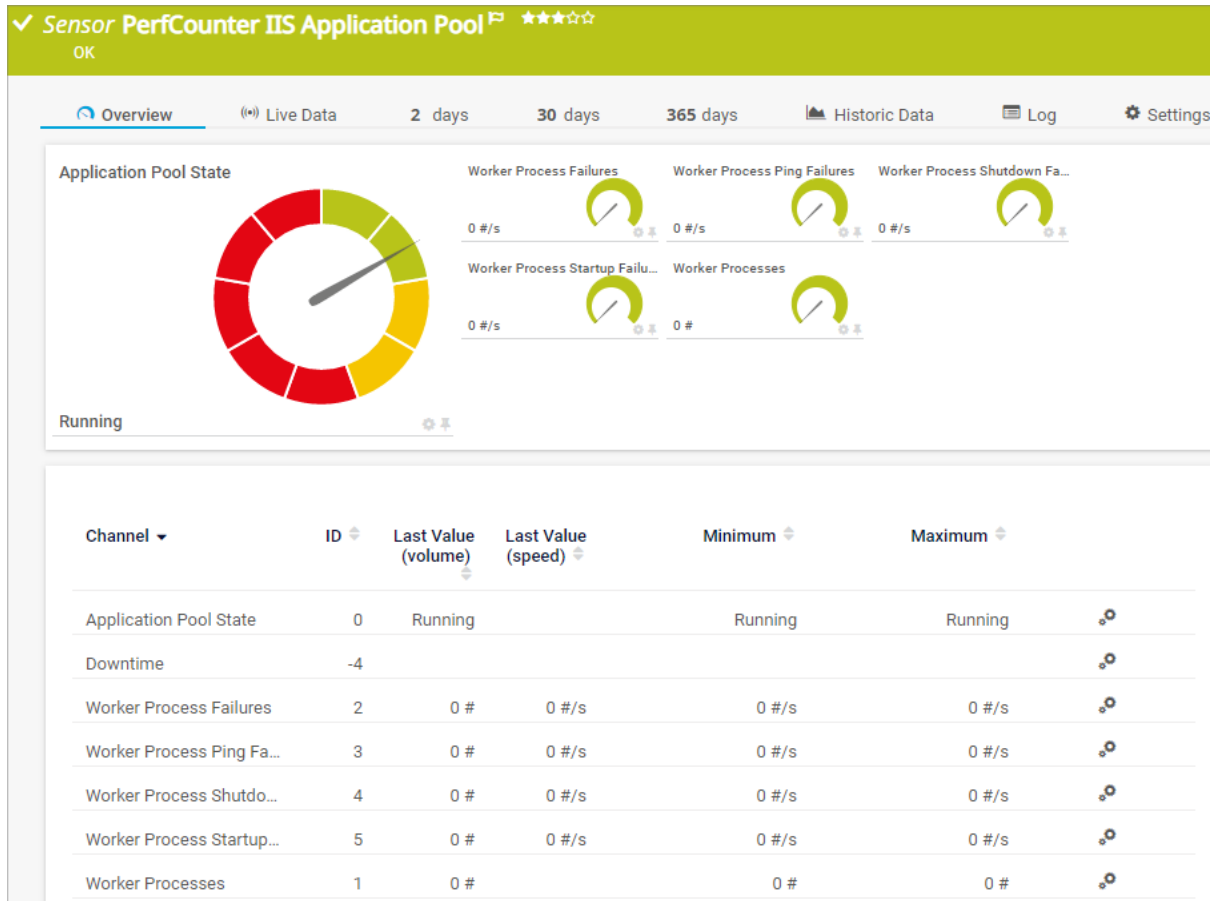
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.116 PerfCounter IIS Application Pool Sensor

The PerfCounter IIS Application Pool sensor monitors a Microsoft Internet Information Services (IIS) application pool via Windows performance counters.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



PerfCounter IIS Application Pool Sensor

Sensor in Other Languages

- Dutch: PerfCounter IIS Application Pool
- French: Pool d'application IIS PerfCounter
- German: Leistungsindikator IIS-Anwendungspool
- Japanese: パフォーマンスカウンター IIS アプリケーションプール
- Portuguese: Pool de aplicativos IIS via PerfCounter
- Russian: IIS (PerfCounter)
- Simplified Chinese: 性能计数器 IIS 应用程序池
- Spanish: Grupo de aplicaciones PerfCounter IIS

Remarks

- This sensor [requires](#) ¹⁹⁹⁹ Microsoft IIS version 7.5 or later on the target system.
- This sensor requires [credentials for Windows systems](#) ⁴⁵² in the settings of the parent device.
- This sensor requires that the Remote Registry Windows service runs on the target computer.
- This sensor requires Windows Server 2008 R2 or later on the probe system.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#) ⁴⁴⁸⁵.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Microsoft IIS version 7.5	To monitor IIS application pools, this sensor needs IIS version 7.5 or later to be installed on the target system.
Windows credentials	<p>This sensor requires credentials for Windows systems ⁴⁵² in the settings of the parent device. Preferably, use Windows domain credentials.</p> <ul style="list-style-type: none"> ❗ If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, a connection via performance counters is not possible. ❗ The user account has to be a member of the Performance Monitor Users user group on the target system.
Windows version	For this sensor to work with Windows performance counters, make sure that a Windows version 2008 R2 or later is installed on the probe system (on every cluster node, if on a cluster probe).
Remote Registry service	<p>For this sensor to work with Windows performance counters, make sure that the Remote Registry Windows service runs on the target computer. If this service does not run, a connection via performance counters is not possible.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

IIS Application Pool Specific

Setting	Description
Application Pools	<p>Select the application pools that you want to monitor. PRTG creates one sensor for each application pool that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus sign, and a 'Priority' field with three stars selected.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited. ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ performancecounter ▪ pciisappool
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

IIS Application Pool Specific

IIS Application Pool Specific
Application Pools ⓘ _Total

IIS Application Pool Specific

Setting	Description
Application Pools	Shows the name of the application pool that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

<p>Scanning Interval</p> <p> inherit from Root</p>	<p>Scanning Interval ⓘ 60 seconds</p> <hr/> <p>If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)</p>
--	---

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Application Pool State	<p>The overall status of the application pool</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Running, Unavailable for Total ▪ Warning status: Initialized, Shutdown Pending ▪ Down status: Delete Pending, Stopped, Stopping, Unavailable, Uninitialized <p>i This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Worker Process Failures	<p>The number of failures in worker processes per second</p>
Worker Process Ping Failures	<p>The number of failures in worker process pings per second</p>
Worker Process Shutdown Failures	<p>The number of failures in worker process shutdowns per second</p>
Worker Process Startup Failures	<p>The number of failures in worker process startups per second</p>

Channel	Description
Worker Processes	The number of worker processes

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

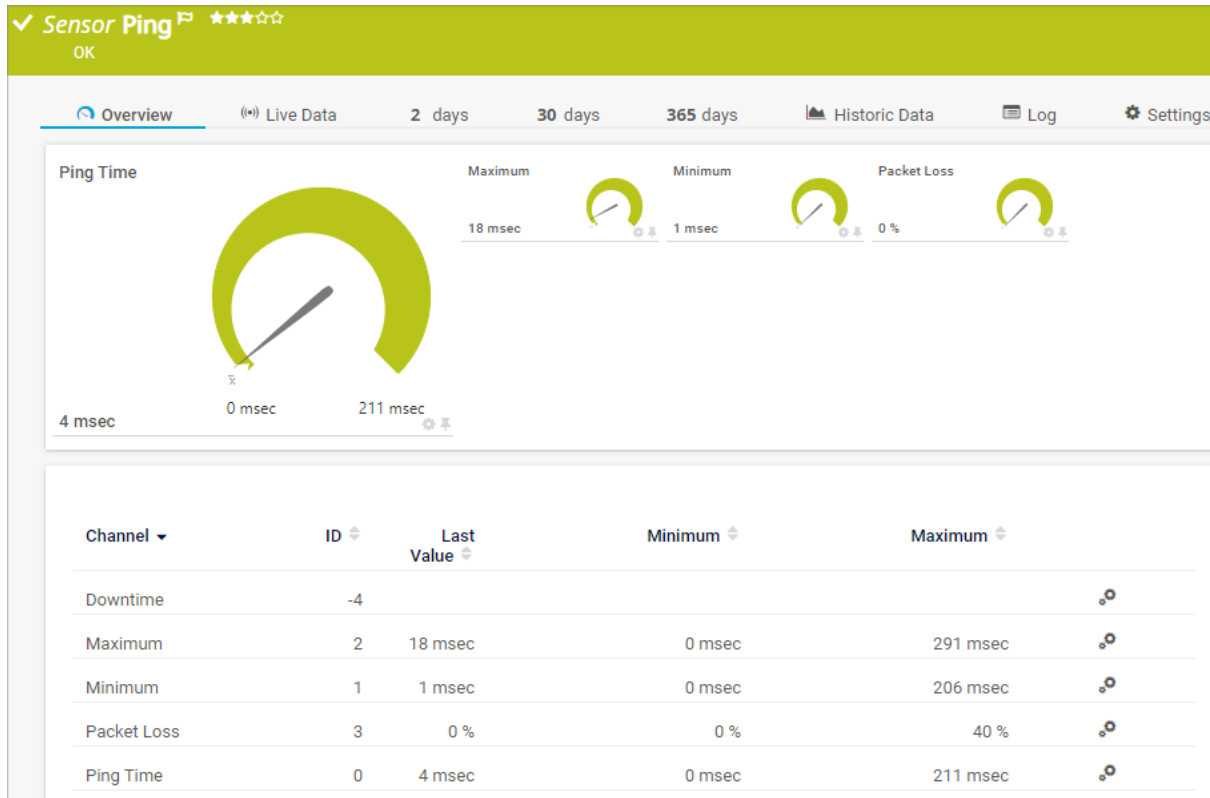
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.117 Ping Sensor

The Ping sensor sends an Internet Control Message Protocol (ICMP) echo request ("Ping") from the probe system to the parent device to monitor its availability.

i The default number of Pings per scanning interval is **5**.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Ping Sensor

Sensor in Other Languages

- Dutch: Ping
- French: Ping
- German: Ping
- Japanese: Ping
- Portuguese: Ping
- Russian:
- Simplified Chinese: Ping
- Spanish: Ping

Remarks

- This sensor supports the IPv6 protocol.

- This sensor has a very low performance impact.
- See the Knowledge Base: [How to create/customize statistical Ping sensor?](#)
- See the Knowledge Base: [Can I create an inverse Ping sensor?](#)

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ pingsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Ping Settings

Ping Settings

Timeout (Sec.) **i**

Packet Size (Bytes) **i**

Ping Method **i** Send one single Ping
 Send multiple Ping requests

Ping Count **i**

Packet Delay (ms) **i**

Acknowledge Automatically **i** Show down status on error (default)
 Show down (acknowledged) status on error

Ping Settings

Setting	Description
Timeout (Sec.)	Enter a timeout in seconds for the Ping. If the reply takes longer than this value, PRTG cancels the request and shows an error message. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).
Packet Size (Bytes)	Enter the packet size for the Ping in bytes. You can enter any value between 1 and 10000 . Enter an integer value. i We recommend that you use the default value.

Setting	Description
Ping Method	<p>Define the kind of Ping check that the sensor performs with each scanning interval:</p> <ul style="list-style-type: none"> ▪ Send one single Ping: Send a single Ping only. The sensor then shows the Ping time only. <ul style="list-style-type: none"> ❗ This setting is useful for monitoring availability. ▪ Send multiple Ping requests: Send multiple Pings in a row. The sensor then also shows the minimum and the maximum Ping time as well as the packet loss (in percent). This setting is default. <ul style="list-style-type: none"> ❗ This setting is useful if you want to create reports about average Ping times out of a series of ping requests. ❗ If you select this setting, all of the Ping requests must be lost for the sensor to show the Down status^[197]. For example, if only one Ping request is answered in a series of five, the sensor still shows the Up status.
Ping Count	<p>This setting is only visible if you select Send multiple Ping requests above. Enter the number of Pings that the sensor sends in a row in one scanning interval. Enter an integer value. The default value is 5.</p>
Ping Delay (ms)	<p>This setting is only visible if you select Send multiple Ping requests above. Enter the time in milliseconds (ms) that the sensor waits between two Ping requests. Enter an integer value. The default value is 5.</p> <p>❗ Increase the value if the target device drops Ping packets because of denial of service (DoS) suspicion.</p>
Acknowledge Automatically	<p>Define if you want to automatically acknowledge^[229] the Down status of the sensor:</p> <ul style="list-style-type: none"> ▪ Show down status on error (default): Do not automatically acknowledge an alarm if this sensor changes to the Down status. ▪ Show down (acknowledged) status on error: Automatically acknowledge an alarm. If this sensor changes to the Down status, it automatically shows the Down (Acknowledged) status instead.




Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

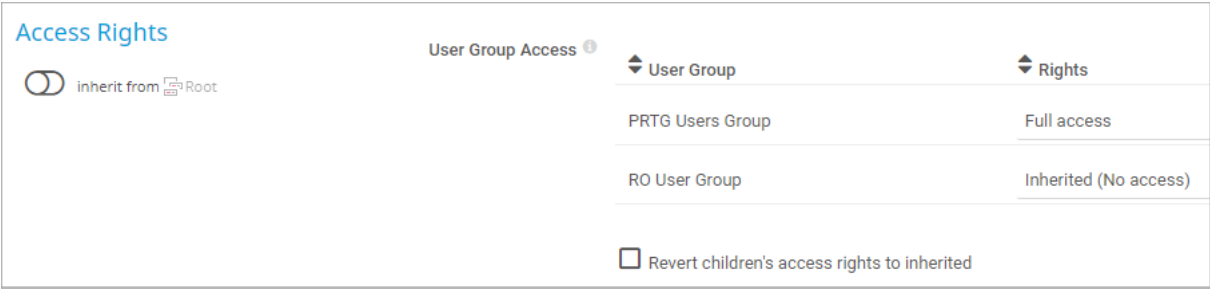
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights

Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Maximum	The maximum Ping time when using more than one Ping per interval
Minimum	The minimum Ping time when using more than one Ping per interval
Packet Loss	The packet loss in percent when using more than one Ping per interval
Ping Time	The Ping time in milliseconds (msec) i This channel is the primary channel by default.

More

■ KNOWLEDGE BASE

How to create/customize statistical Ping sensor?

- <https://kb.paessler.com/en/topic/1873>

Can I create an inverse Ping sensor?





- <https://kb.paessler.com/en/topic/10203>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

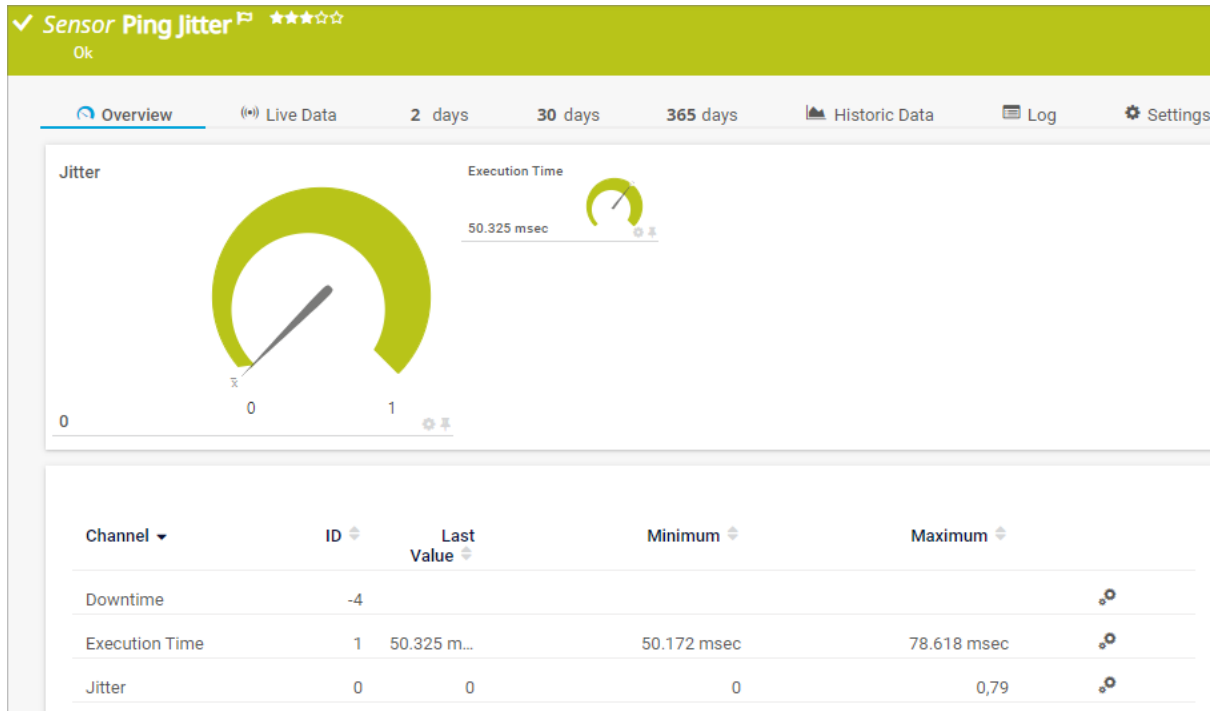
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.118 Ping Jitter Sensor

The Ping Jitter sensor sends a series of Internet Control Message Protocol (ICMP) echo requests ("Pings") to a URI to determine the statistical jitter.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Ping Jitter Sensor

Sensor in Other Languages



- Dutch: Ping Jitter
- French: Gigue du ping
- German: Ping Jitter
- Japanese: Ping ジッター監視
- Portuguese: Ping Jitter
- Russian:
- Simplified Chinese: Ping 抖动
- Spanish: Jitter de Ping

Remarks

- This sensor requires .NET 4.7.2 or later on the probe system. If the sensor shows the error PE087, additionally install .NET 3.5 on the probe system.
- We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
- This sensor supports the IPv6 protocol.

- This sensor has a medium performance impact.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.


Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A list box containing 'exampletag' with a close button (X) and an add button (+).
- Priority**: A star rating system showing 3 stars selected out of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p> If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p>

Setting	Description
	<p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ ptfsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings
Ping Count ⓘ 50

Sensor Settings

Setting	Description
Ping Count	Define the number of ICMP Pings that the sensor sends. Enter an integer value.

Debug Options

Debug Options

Result Handling ⓘ

Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ

Downtime


Graph Type ⓘ

Show channels independently (default)


Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
Execution Time	The execution time in milliseconds (msec)
Jitter	<p>The statistical jitter value</p> <p>The Real Time Jitter value is updated every time a packet is received using the formula described in RFC 1889:</p> <pre>Jitter = Jitter + (abs(ElapsedTime - OldElapsedTime) - Jitter) / 16</pre> <p>The Statistical Jitter value is calculated according to the first x packets received using the statistical variance formula:</p> <pre>Jitter Statistical = SquareRootOf(SumOf((ElapsedTime[i] - Average) ^ 2) / (ReceivedPacketCount - 1))</pre> <p>i This channel is the primary channel by default.</p>

More

KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

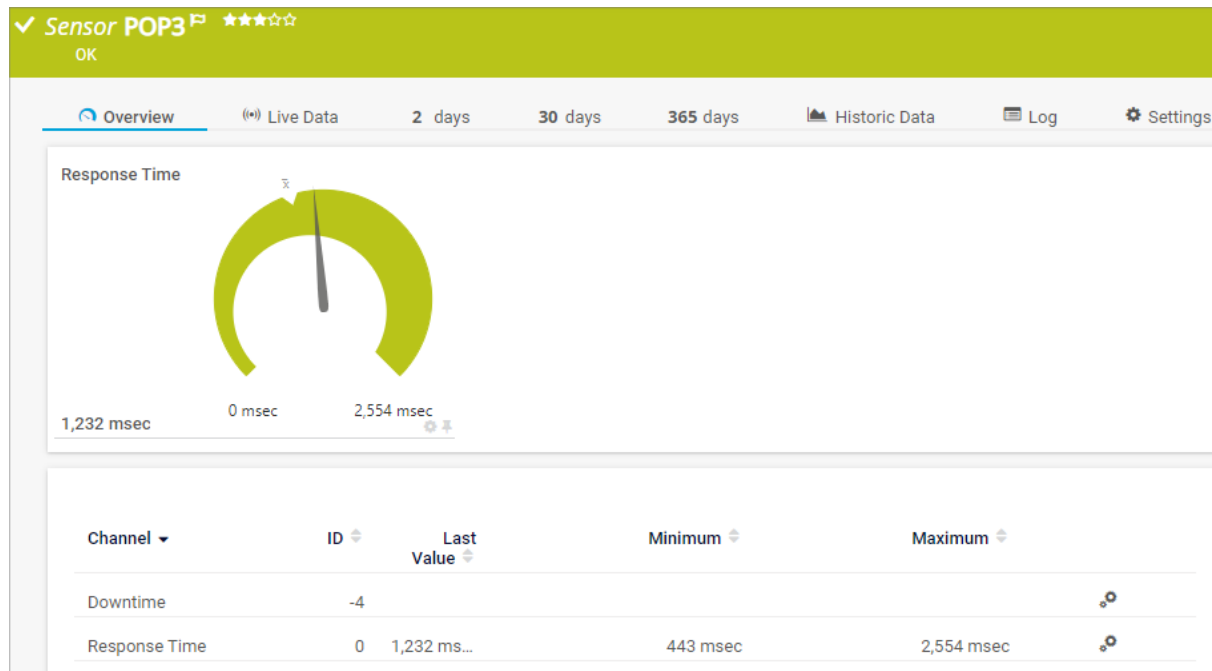
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.119 POP3 Sensor

The POP3 sensor monitors an email server via the Post Office Protocol version 3 (POP3).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



POP3 Sensor

Sensor in Other Languages

- Dutch: POP3
- French: POP3
- German: POP3
- Japanese: POP3
- Portuguese: POP3
- Russian: POP3
- Simplified Chinese: POP3
- Spanish: POP3

Remarks

- This sensor does not support Secure Remote Password (SRP) ciphers.
- This sensor has a low performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list of tags with 'exampletag' selected, and a plus sign to add more.
- Priority:** A star rating system showing 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> pop3sensor mailsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

POP3 Specific

POP3 Specific

Timeout (Sec.) **i**

Port **i**

POP3 Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
Port	<p>Specify the port that the sensor uses for the POP3 connection. The default port for unsecure connections is 110 and the default port for secure connections is 995. The actual setting depends on the server you connect to. Enter an integer value.</p> <p>i We recommend that you use the default value.</p> <p>i If the connection is unsuccessful, try a different port number.</p>

Connection Security

Connection Security

Transport-Level Security **i**

Use transport-level security if available using StartTLS (default)

Use transport-level security if available

Enforce transport-level security using StartTLS

Enforce transport-level security

Connection Security

Setting	Description
Transport-Level Security	<p>Define how the sensor handles the security of the connection:</p> <ul style="list-style-type: none"> Use transport-level security if available using StartTLS (default): Try to connect to the server via a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection and StartTLS. If the server does not support this, the sensor tries to connect without connection security. Use transport-level security if available: Try to connect to the server via an SSL/TLS-secured connection. If the server does not support this, the sensor tries to connect without connection security. Enforce transport-level security using StartTLS: Try to connect to the server via an SSL/TLS-secured connection and StartTLS. If the server does not support this, the sensor shows the Down status¹⁹⁷. Enforce transport-level security: Try to connect to the server via an SSL/TLS-secured connection. If the server does not support this, the sensor shows the Down status. <p>i If the sensor connects to a server via StartTLS, the connection is first established without connection security. After the connection has been established, the sensor sends a certain command (StartTLS) over the unsecured connection to negotiate a secure connection via SSL/TLS.</p> <p>i If the sensor does not use StartTLS, the negotiation of a secure connection happens immediately (implicitly) so that no commands are sent in unencrypted plain text. If no secure connection is possible, no communication takes place.</p>

POP3 Authentication

POP3 Authentication

Type ⓘ

Without login

Username and password

128-bit MD5 hash value (APOP)

Result Handling ⓘ

Discard result

Store result

POP3 Authentication

Setting	Description
POP3 Authentication Method	<p>Select the authentication method for the POP3 connection:</p> <ul style="list-style-type: none"> Without login: Only monitor the connection to the POP3 server. User name and password: Log in to the POP3 server with user name and password. <ul style="list-style-type: none"> i This is a simple login. It is not secure. 128-bit MD5 hash value (APOP): Send the password in an encrypted form using APOP. <ul style="list-style-type: none"> i The POP3 server that you connect to must support this option.
User Name	<p>This setting is only visible if you select User name and password or 128-bit has value (APOP) above. Enter a user name for POP3 authentication. Enter a string.</p>
Password	<p>This setting is only visible if you select User name and password or 128-bit has value (APOP) above. Enter a user name for POP3 authentication. Enter a string.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <ul style="list-style-type: none"> ☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance. i In a cluster, PRTG stores the result in the PRTG data directory of the master node.


Sensor Display

Sensor Display


Primary Channel **ⓘ** Downtime

Graph Type **ⓘ**
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval **i** 60 seconds

 inherit from  Root

If a Sensor Query Fails **i** Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access ⓘ


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Response Time	The response time in milliseconds (msec)  This channel is the primary channel by default.

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

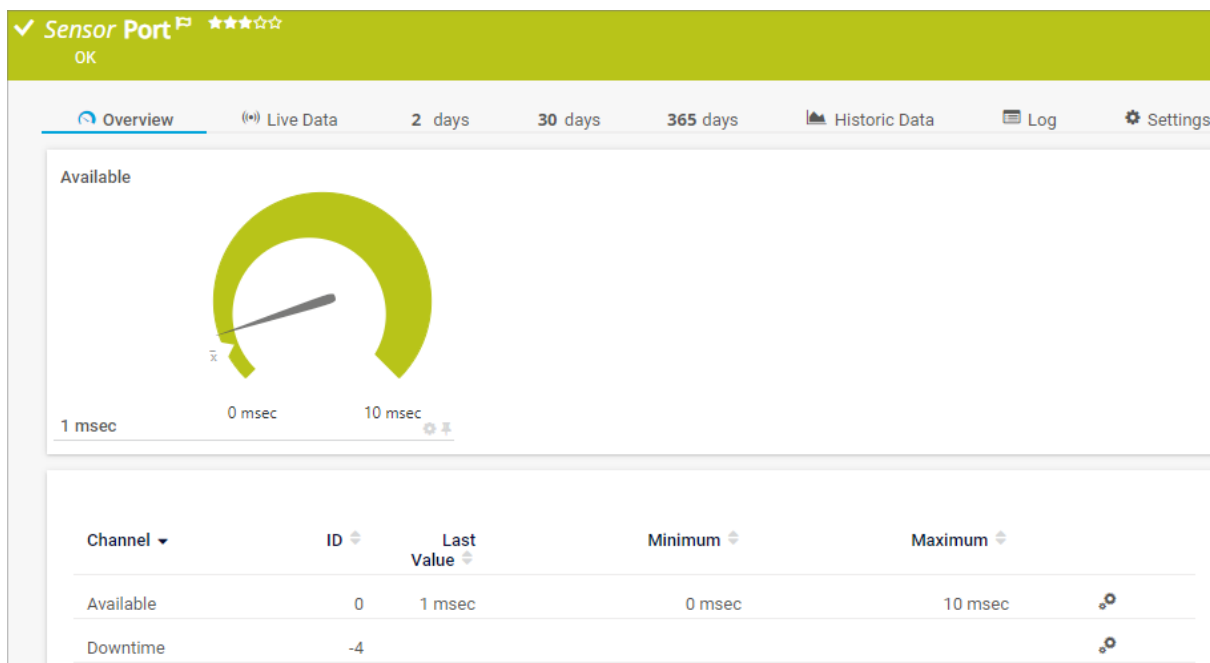
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.120 Port Sensor

The Port sensor monitors a network service by connecting to its port. It tries to connect to the specified TCP/IP port number of a device and waits for the request to be accepted.

i Depending on your settings, the sensor can alert you either when the monitored port is open or when it is closed.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Port Sensor

Sensor in Other Languages

- Dutch: Poort
- French: Port
- German: Port
- Japanese: ポート
- Portuguese: Porta
- Russian:
- Simplified Chinese: 端口
- Spanish: Puerto

Remarks

- This sensor does not support Secure Remote Password (SRP) ciphers.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> portsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Port Specific

Port Specific

Timeout (Sec.) **i**

Port **i**

Port Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
Port	<p>Enter the number of the port to which this sensor connects. Enter an integer value.</p>

Connection Security

Connection Security

Transport-Level Security **i** Do not use transport-level security (default)
 Use transport-level security

Connection Security

Setting	Description
Transport-Level Security	<p>Define the security of the connection:</p> <ul style="list-style-type: none"> Do not use transport-level security (default): Establish the connection without connection security. Use transport-level security: Establish the connection with the strongest Secure Sockets Layer (SSL)/Transport Layer Security (TLS) method that the target device provides.

Advanced Sensor Settings

Advanced Sensor Settings

Goal ⓘ Open
 Closed

Command Handling ⓘ Do not send a command
 Send a command

Result Handling ⓘ Discard result
 Store result

Advanced Sensor Settings

Setting	Description
Goal	<p>Define how the sensor reports on the port:</p> <ul style="list-style-type: none"> Open: Show the Up status^[197] if the port is open, and the Down status if the port is closed. Closed: Show the Up status if the port is closed, and the Down status if the port is open.
Command Handling	<p>This setting is only visible if you select Open above. Define whether the sensor sends a command after it opens the port:</p> <ul style="list-style-type: none"> Do not send a command: Only check if a connection to the port is possible. Send a command: Open a Telnet session to the respective port and send a command. ⓘ You cannot use this option if the target device is a web server.

Setting	Description
Command	<p>This setting is only visible if you select Send a command above. Enter the command that the sensor sends to the respective port in a Telnet session. Enter a string.</p> <p>i You cannot use line breaks. You can only use a simple Telnet command in a single line.</p>
Response	<p>Define if the sensor further processes the response:</p> <ul style="list-style-type: none"> ▪ Ignore response: Do not check the response. ▪ Check response code (integer): Check if the response matches a defined response code. Define the response code below. ▪ Check response text: Check if the response matches a defined response text. Define the response text below.
Allowed Response Code	<p>This setting is only visible if you select Check response code (integer) above. Enter the code that the target device must return. If the target device does not return this code, the sensor shows the Down status. Enter an integer value.</p>
Check for Keywords (positive)	<p>This setting is only visible if you select Check response text above. Check if the response contains a specific keyword. If the response does not contain the keyword, the sensor shows the Down status.</p> <ul style="list-style-type: none"> ▪ Disable: Do not check for positive keywords. ▪ Enable keyword check (positive): Check if a specific keyword exists in the received value. Define the keyword below.
Response Must Include (Down Status if Not Included)	<p>This setting is only visible if you select Enable keyword check (positive) above. Define the search string that the response must contain. You can enter a simple string in plain text or a regular expression (regex)⁴⁴⁹⁷.</p> <p>i The search string must be case sensitive.</p> <p>i If the data does not include the search pattern, the sensor shows the Down status.</p>
Search Method	<p>Define the method with which you want to provide the search string:</p> <ul style="list-style-type: none"> ▪ Simple string search: Search for a simple string in plain text. <p>i The characters * and ? work as placeholders. * stands for no number or any number of characters and ? stands for exactly one character. You cannot change this behavior. The literal search for these characters is only possible with a regex.</p> <ul style="list-style-type: none"> ▪ Regular expression: Search with a regex. <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p>

Setting	Description
Check for Keywords (negative)	<p>This setting is only visible if you select Simple string search above. Check if the response does not contain a specific keyword. If the response does contain the keyword, the sensor shows the Down status.</p> <ul style="list-style-type: none"> ▪ Disable: Do not check for negative keywords. ▪ Enable keyword check (negative): Check if a specific keyword does not exist in the received value. Define the keyword below.
Response Must Not Include (Down Status if Included)	<p>This setting is only visible if you select Enable keyword check (negative) above. Define the search string that the response must not contain. You can enter a simple string in plain text or a regex.</p> <ul style="list-style-type: none"> ❗ The search string must be case sensitive. ❗ If the data does include the search pattern, the sensor shows the Down status.
Search Method	<p>Define the method with which you want to provide the search string:</p> <ul style="list-style-type: none"> ▪ Simple string search: Search for a simple string in plain text. ❗ The characters * and ? work as placeholders. * stands for no number or any number of characters and ? stands for exactly one character. You cannot change this behavior. The literal search for these characters is only possible with a regex. ▪ Regular expression: Search with a regex. ❗ PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ❗ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>



Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
 inherit from  Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management.</p>

Channel List

- ❗ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Available	<p>The time until a request to a port is accepted in milliseconds (msec)</p> <p>❗ This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>

More





■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

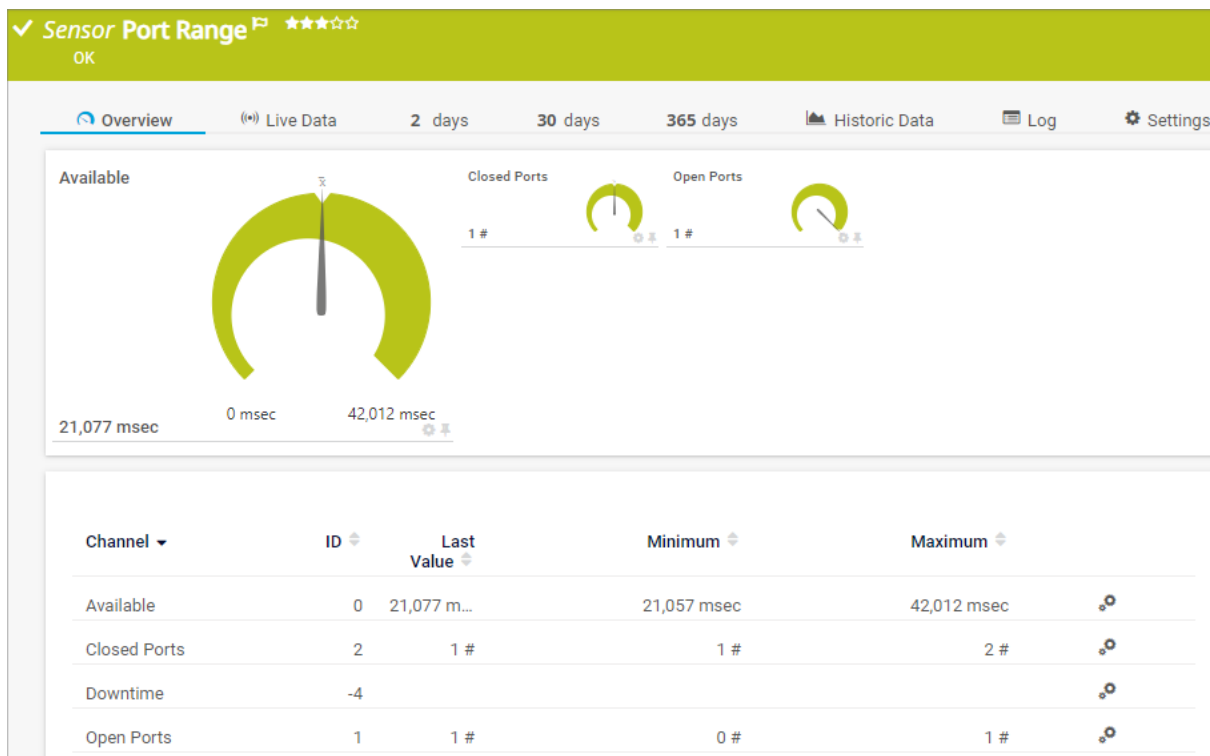
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.121 Port Range Sensor

The Port Range sensor monitors a network service by connecting to various TCP/IP ports. It tries to connect to the specified TCP/IP port numbers of a device in succession and waits for the device to accept each request.

Optionally, you can set limits in the [channel settings](#). This way, you can get alerts about open and closed ports.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Port Range Sensor

Sensor in Other Languages

- Dutch: Poortbereik
- French: Plage de port
- German: Portbereich
- Japanese: ポート範囲
- Portuguese: Intervalo de portas
- Russian:
- Simplified Chinese: 端口范围
- Spanish: Rango de puerto

Remarks

- This sensor does not support Secure Remote Password (SRP) ciphers.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A text input field containing "exampletag" with a blue 'x' icon to the right and a plus icon to the left of the input area.
- Priority:** A section with five star icons, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ portrangesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Port Range Specific

Port Range Specific

Timeout (Sec.) ⓘ	60
Port-by-Port Delay (ms) ⓘ	0
Port Range Selection Method ⓘ	<input checked="" type="radio"/> Port range <input type="radio"/> List of ports
Range Start ⓘ	1
Range End ⓘ	100
If Value Changes ⓘ	<input checked="" type="radio"/> Ignore changes <input type="radio"/> Trigger 'change' notification

Port Range Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
Port-by-Port Delay (ms)	<p>Define how long the sensor waits in milliseconds (ms) to go to the next port while it runs through all specified ports.</p>
Port Range Selection Method	<p>Define whether you want to monitor all ports within a range or if you want to monitor several individual ports:</p> <ul style="list-style-type: none"> Port range: Monitor ports within a range. List of ports: Monitor several individual ports.
Range Start	<p>This setting is only visible if you select Port range with start/end above. Enter the port number where the scan starts. Enter an integer value.</p>
Range End	<p>This setting is only visible if you select Port range with start/end above. Enter the port number where the scan ends. Enter an integer value.</p>
Port List	<p>This setting is only visible if you select List of ports above. Enter the numbers of the ports that the sensor tries to connect to. Enter one or more individual integer values. Enter each port in one line.</p>
If Value Changes	<p>Define what the sensor does if the number of closed ports or open ports changes:</p> <ul style="list-style-type: none"> Ignore changes: No action is taken if there is a change. Trigger 'change' notification: The sensor sends an internal message indicating that its value has changed. In combination with a change trigger⁴¹³⁶, you can use this mechanism to trigger a notification³³⁸⁷ whenever the sensor value changes.




Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None


Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

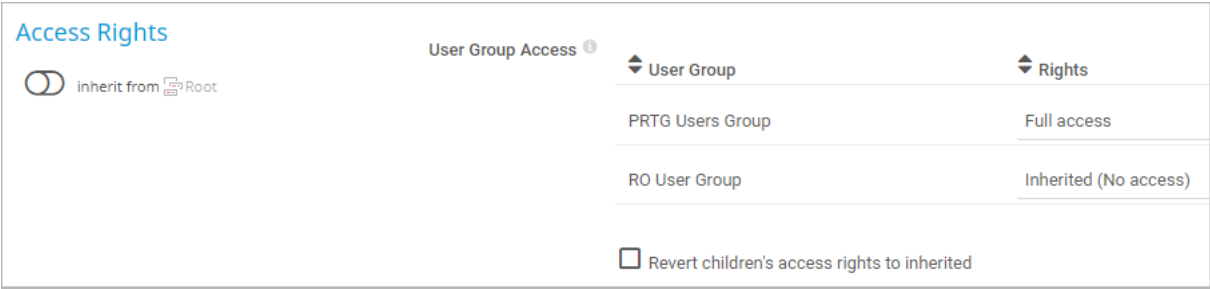
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>


Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].



Access Rights

Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management^[158].</p>

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Available	The time until requests requests to ports are accepted in milliseconds (msec) i This channel is the primary channel by default.
Closed Ports	The number of closed ports
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Open Ports	The number of open ports

More





■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

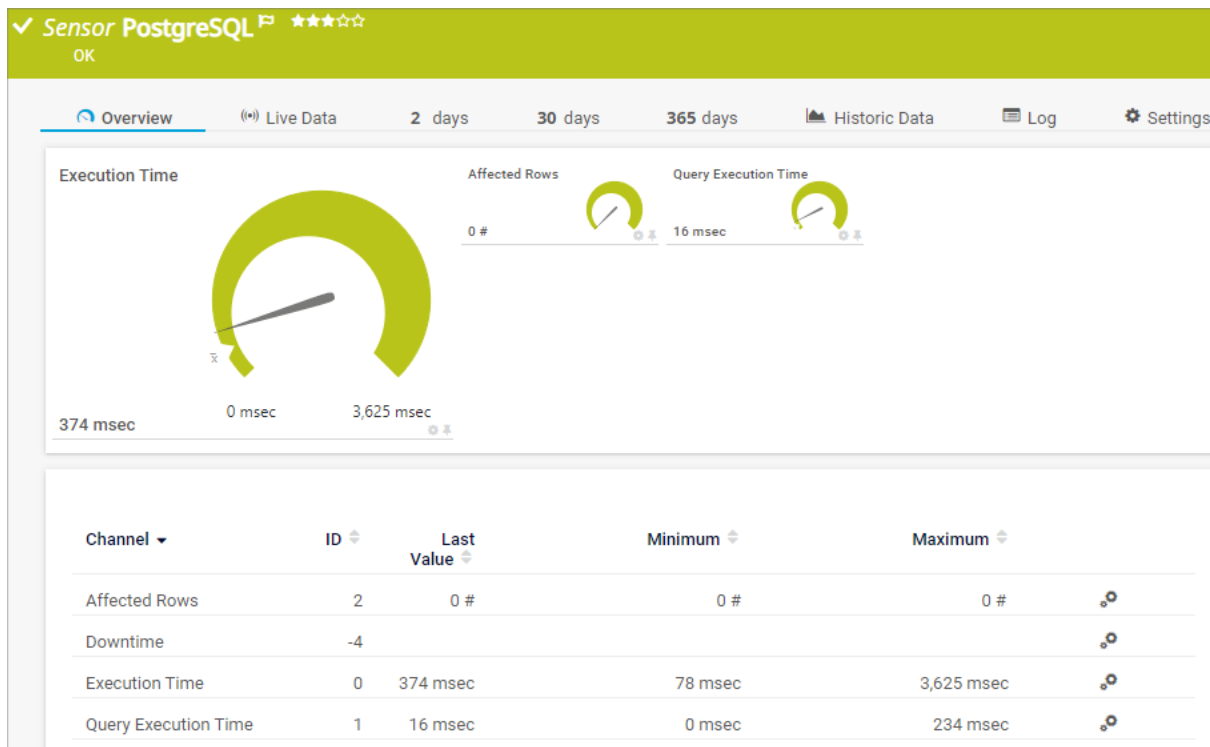
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.122 PostgreSQL Sensor

The PostgreSQL sensor monitors a database on a PostgreSQL server and executes a query.

i The sensor can also process the data table and show the values that you define in individual channels.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



PostgreSQL Sensor

Sensor in Other Languages

- Dutch: PostgreSQL
- French: PostgreSQL
- German: PostgreSQL
- Japanese: PostgreSQL
- Portuguese: PostgreSQL
- Russian: PostgreSQL
- Simplified Chinese: PostgreSQL
- Spanish: PostgreSQL



Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.

- This sensor requires .NET 4.7.2 or later on the probe system.
- You must store your Structured Query Language (SQL) query in a file on the probe system. In a cluster, copy the file to every cluster node.
- Save the SQL script with the query in the \Custom Sensors\sql\postgresql subfolder of the [PRTG program directory](#) ⁴⁵²⁶.
- Define credentials, custom port (if required), and timeout in the [credentials for database management systems](#) ⁴⁵⁷¹ settings of the parent device, or in the settings of a group or probe above.
- This sensor supports PostgreSQL 7.x or later.
- This sensor supports the IPv6 protocol.
- See section [Monitoring Databases](#) ⁴³²⁴ for an [example](#) ⁴³²⁵ for channel value selection.
- See the Knowledge Base: [How can I monitor strings from an SQL database and show a sensor status depending on it?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Data

Setting	Description
SQL Query File	<p>Select the SQL query file that includes a valid SQL statement that the sensor executes on the server with every scanning interval. The list contains SQL scripts from the \Custom Sensors\sql subfolder of the PRTG program directory ⁴⁵²⁶ on the probe system. Store your script there. If you use the script on a cluster probe, you must store the script on all cluster nodes.</p>

Setting	Description
	<p>A correct expression in the file could be: SELECT AVG(UnitPrice) FROM Products. If you want to use transactions, separate the individual steps with semicolons ";".</p> <ul style="list-style-type: none"> i Note that with each request, PRTG transfers the full result set, so use filters and limits in your query. i The demo script Demo Serveruptime.sql is available by default. You can use the it to monitor the uptime of the target server. ■ See also the Knowledge Base: Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?
Data Processing	<p>Define whether the sensor processes data from the database:</p> <ul style="list-style-type: none"> ▪ Only execute query: Only show information about the number of affected rows and the execution time of the query. Affected rows are rows that were changed by the query (for example, created, deleted, or edited). ▪ Count table rows: Execute a SELECT statement and monitor how many rows of the data table this statement returns. ▪ Process data table: Read and analyze the data table. If you select this option, the sensor counts rows with SELECT statements as well.
Channel #2 – #10	<p>This setting is only visible if you select Process data table above. You can define up to 10 additional channels for the data processing of this sensor. You have to define at least one data channel if you process the data table, so you automatically see all available settings for Channel #1. Specify how to handle all other possible channels:</p> <ul style="list-style-type: none"> ▪ Disable: Do not create this channel. ▪ Enable: Create this channel. <p>i It is not possible to enable or disable channels after sensor creation.</p>
Channel #x Name	<p>This setting is only visible if you select Process data table above. Enter a unique name for the channel. Enter a string. PRTG dynamically generates channels with this name as the identifier.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), PRTG dynamically generates channels with this name as the identifier. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Channel #x Mode	<p>This setting is only visible if you select Process data table above. Define how to display the determined value in the channel:</p> <ul style="list-style-type: none"> ▪ Absolute (recommended): Show the value as the sensor retrieves it from the data table.

Setting	Description
Channel #x Unit	<ul style="list-style-type: none"> ▪ Difference: The sensor calculates and shows the difference between the last and the current value returned from the data table. <ul style="list-style-type: none"> ❗ This mode is not compatible with the unit Lookup. ❗ This mode only works if the difference between the last and the current value is positive and increases with each scanning interval. This mode does not support negative and decreasing values. <p>This setting is only visible if you select Process data table above. Define the unit of the channel value:</p> <ul style="list-style-type: none"> ▪ BytesBandwidth ▪ BytesMemory ▪ BytesDisk ▪ Temperature ▪ Percent ▪ TimeResponse ▪ TimeSeconds ▪ TimeHours ▪ Count ▪ CPU ▪ BytesFile ▪ SpeedDisk ▪ SpeedNet ▪ Custom ▪ Lookup <p>■ For more information about the available units, see section Custom Sensors⁴⁴⁴².</p> <ul style="list-style-type: none"> ❗ To use lookups⁴⁴⁸⁵ with this channel, select Lookup and define the lookup file in Channel #x Lookup. Do not use Custom if you use lookups with this sensor. ❗ It is not possible to use the unit Lookup in combination with the Difference mode. You are not able to create the sensor in this case.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag ✕ +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sqlsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Database Specific

Database Specific

Database ⓘ MyDatabase

SSL Mode ⓘ

Disable

Allow

Prefer

Require

Database Specific

Setting	Description
Database	Enter the name of the PostgreSQL database to which the sensor connects, for example MyDatabase . This is a logical entity on the database server where database objects exist.
SSL Mode	<p>Select the PostgreSQL Secure Sockets Layer (SSL) mode for the connection:</p> <ul style="list-style-type: none"> ▪ Disable: Do not use SSL. ▪ Allow: Use SSL if the server demands it. ▪ Prefer: Use SSL if the server supports it. ▪ Require: Always use SSL and deny the connection if the server does not support it. <p>The SSL mode options that you can choose are the same as the values of the PostgreSQL sslmode parameter. PRTG sends it with the sensor requests.</p> <p>ⓘ PostgreSQL SSL connections require OpenSSL to be installed on both the target server and on the probe system.</p> <p>ⓘ For details about the PostgreSQL SSL modes, refer to the PostgreSQL documentation.</p>

Data

Data

SQL Query File ⓘ *Demo Serveruptime.sql*

Input Parameter Handling ⓘ Do not use input parameter (default)
 Use input parameter

Transaction Handling ⓘ Do not use transaction (default)
 Use transaction and always roll back
 Use transaction and commit on success

Data Processing ⓘ *Only execute query*

Result Handling ⓘ Discard result
 Store result

Data

Setting	Description
SQL Query File	Shows the SQL script file that the sensor executes on the server. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Input Parameter Handling	Define if you want to pass a parameter to the SQL query file: <ul style="list-style-type: none"> ▪ Do not use input parameter (default): Execute the SQL query file without using variables. ▪ Use input parameter: Execute an SQL query file that contains a variable. Provide the parameter that you want to use in the query below.
Input Parameter	This setting is only visible if you select Input Parameter Handling above. Enter the parameter that you want to pass to the SQL query file. This parameter replaces the variables @prtg, :prtg, or ? in the SQL query, considering the general rules for SQL variables. You can also use PRTG placeholders for custom sensors (command-line parameters) as input parameters, for example, %sensorid or %deviceid. For details, see section Custom Sensors [444]. ⓘ Provide strings as they are and do not surround them with quotation marks. PRTG automatically and correctly inserts string parameters into the query.
Transaction Handling	Define if you want to use transactions and if they affect the database content: <ul style="list-style-type: none"> ▪ Do not use transaction (default): Do not execute transactions.

Setting	Description
	<ul style="list-style-type: none"> Use transaction and always roll back: The query does not change data in the database. In the SQL query file, separate the single steps of the transaction with semicolons. Use transaction and commit on success: The query changes data in the database. The changes only apply if all execution steps succeed without any errors. In the SQL query file, separate the single steps of the transaction with semicolons.
Data Processing	<p>Shows how the sensor processes data from the database.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Handle DBNull in Channel Values as	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define the sensor behavior if the query returns DBNull:</p> <ul style="list-style-type: none"> Error: Show a Down status if the query returns DBNull. Number 0: Recognize the result DBNull as a valid value and interpret it as the number 0.
Select Channel Value by	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define how to select the desired cell in the database table:</p> <ul style="list-style-type: none"> Column number: Determine the channel value by using the value in row 0 of the column whose number you specify in Channel #x Column Number. Column name: Determine the channel value by using the value in row 0 of the column whose name you specify in Channel #x Column Name. Row number: Determine the channel value by using the value in column 0 of the row whose number you specify in Channel #x Row Number. Key value pair: Determine the channel value by searching in column 0 for the key you specify in Channel #x Key and by returning the value in column 1 of the same row where the key value was found. <p>i Defining how the desired cell in the database table is selected is necessary to configure the cells that are used in the channels.</p> <p>i The option you select here also defines the method of how to optionally determine a value for the sensor message. For details, see setting Use Data Table Value in Sensor Message.</p> <p>■ For an example for channel value selection, see section Monitoring Databases ⁴³²⁵.</p>
Channel #x	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. The setting shows if the channel is disabled.</p>

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Channel #x Name	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Enter a unique name for the channel. Enter a string. The sensor dynamically generates channels with this name as identifier.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Channel #x Column Number	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Column number for the setting Select Channel Value by. Provide the number of the column to use to determine the channel value in row 0. Enter an integer value.</p>
Channel #x Column Name	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Column name for the setting Select Channel Value by. Provide the name of the column to use to determine the channel value in row 0. Enter an integer value.</p>
Channel #x Row Number	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation and if you select Row number for the setting Select Channel Value by. Provide the number of the column to use to determine the channel value in row 0. Enter an integer value.</p>
Channel #x Mode	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. The setting shows how you want to display the determined value in the channel.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Channel #x Unit	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define the unit of the channel value:</p> <ul style="list-style-type: none"> ▪ BytesBandwidth ▪ BytesMemory ▪ BytesDisk ▪ Temperature ▪ Percent ▪ TimeResponse ▪ TimeSeconds ▪ TimeHours

Setting	Description
	<ul style="list-style-type: none"> ▪ Count ▪ CPU ▪ BytesFile ▪ SpeedDisk ▪ SpeedNet ▪ Custom ▪ Lookup
Channel #x Custom Unit	This setting is only visible if you select the channel unit Custom above. Define a unit for the channel value. Enter a string.
Channel #x Lookup	This setting is only visible if you select the channel unit Lookup above. Select a lookup file that you want to use with this channel.
Use Data Table Value in Sensor Message	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation. Define if the sensor message shows a value from the data table:</p> <ul style="list-style-type: none"> ▪ Disable: Do not use a custom sensor message. ▪ Enable: Define a custom sensor message with a defined value of the data table. Define the value selection below. <p>The method of how to determine a value for the sensor message is defined in the setting Select Channel Value by above.</p>
Sensor Message Column Number	This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Column number for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the number of a column. The sensor message shows the value in row 0 of this column. Enter an integer value.
Sensor Message Column Name	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Column name for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the name of a column. The sensor message shows the value in row 0 of this column. Enter a string.</p> <p>i Columns start with index 0.</p>
Sensor Message Row Number	This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Row number for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter the name of a column. The sensor message shows the value in row 0 of this column. Enter the number of a row. The sensor message shows the value in column 0 of this row. Enter an integer value.

Setting	Description
	<p>i Rows start with index 0.</p>
Sensor Message Key	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation, if you select Key value pair for the setting Select Channel Value by, and if you enable Use Data Table Value in Sensor Message. Enter a key to search for in column 0 of the data table. The sensor message shows the value in column 1 of the row where the key was found. Enter a string.</p>
Sensor Message	<p>This setting is only visible if you enable Use Data Table Value in Sensor Message. Define the sensor message. Enter a string. Use the placeholder <code>{0}</code> at the position where you want to display the value.</p> <p>Example: The message is <code>{0}</code></p> <p>i The number sign (<code>#</code>) is not supported in sensor messages. If a message contains a number sign, the message is clipped at this point.</p>
If Sensor Message Changes	<p>This setting is only visible if you select Process data table for the setting Data Processing during sensor creation.</p> <p>Define what the sensor does when the sensor message changes:</p> <ul style="list-style-type: none"> Ignore changes (default): Take no action on change. Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁸, you can use this mechanism to trigger a notification³⁹⁸⁷ whenever the sensor value changes.
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the <code>\Logs\sensors</code> subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management^[155].</p>


Channel Unit Configuration

Click  to interrupt the [inheritance](#)^[142].

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Affected Rows	The number of rows that were addressed by the query (including SELECT statements if you process data tables)
Execution Time	<p>The execution time of the entire request (including connection buildup, query execution, transaction handling, disconnection) in milliseconds (msec)</p> <p>i This channel is the primary channel by default.</p>
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Query Execution Time	The execution time of the specified query in msec

More

■ KNOWLEDGE BASE

How can I monitor strings from an SQL database and show a sensor status depending on it?

- <https://kb.paessler.com/en/topic/63259>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>





Part 7: Device and Sensor Setup | 8 Sensor Settings
122 PostgreSQL Sensor

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.123 Probe Health Sensor

The Probe Health sensor monitors internal PRTG parameters. It shows the status of the probe system and checks various parameters of the probe system that can affect the quality of the monitoring results.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Probe Health Sensor

Sensor in Other Languages

- Dutch: Probe Status
- French: État de la sonde
- German: Zustand der Probe
- Japanese: プローブ正常性
- Portuguese: Funcionamento da sonda

- Russian:
- Simplified Chinese: 探针健康状况
- Spanish: Salud de sonda

Remarks

- PRTG automatically creates this sensor. You cannot delete it.
- You can only create this sensor on a probe device, either a local probe device or a remote probe device.
- This sensor has a very low performance impact.
- See the Knowledge Base: [My probe system is running out of disk space. What can I do?](#)

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes the following elements:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list of tags with 'exampletag' selected, accompanied by a plus sign to add more.
- Priority:** A star rating system showing 3 stars out of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[408], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p>

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> probehealthsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display

Sensor Display

Primary Channel **i** Downtime


Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Access Rights

Click  to interrupt the [inheritance](#).

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU Load	The CPU load in percent that the probe process causes. Extensive CPU load can lead to false, incomplete, and incorrect monitoring results. This value should usually stay below 50%.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Handles	The counter for the data structures of the operating system. It is responsible for internal resource management. Investigate obviously increasing values that occur repeatedly.
Health	<p>The sum of the probe state as a value between 100% (healthy) and 0% (failing). Investigate frequent or repeated health values below 100%.</p> <p> This channel is the primary channel by default.</p>
Interval Delay non-WMI&SNMP	The interval delay in percent for all sensors that are not of the type Simple Network Management Protocol (SNMP) or Windows Management Instrumentation (WMI). If this value is above 0%, try to increase the scanning intervals ^[379] or distribute your sensors among probes ^[4503] .
Interval Delay SNMP	The interval delay in percent for SNMP sensors. If this value is above 0%, there are probably too many SNMP v3 sensors that are very slow. In this case, try to increase the scanning intervals or distribute the sensors among probes.
Interval Delay WMI	The interval delay in percent for WMI sensors. If this value is above 0%, WMI sensors were not able to check the target device according to their interval. 100% means that WMI sensors are checked with twice their interval on average. For values above 0%, try to increase the scanning intervals or distribute the sensors among probes to keep the number of WMI sensors per probe below 120 (with a 60-second scanning interval) or 600 (with a 300-second scanning interval).
Lost Flow Packets	The number of lost xFlow (NetFlow, jFlow, sFlow, IPFIX) ^[4305] packets in percent. The higher this value, the less xFlow packages PRTG can handle. Usually, this value should be 0%. Investigate increasing values.
Memory Usage	The amount of memory that is used by the PRTG probe service as reported by the memory manager. Investigate obviously increasing values that occur repeatedly. If the value is constantly above 2 GB, this indicates that PRTG runs at its limits. In this case, you should distribute some sensors among remote probes ^[4503] .
Message Queue	The number of monitoring results that have not been processed by the core yet. This value should usually stay below 1/10 of the sensor count.
Open Requests	The number of active monitoring requests. This value should stay below the maximum of 500 open requests.

Channel	Description
Syslog Buffer	The number of buffered syslog packages. Usually, this value should be 0 (or very low). Investigate increasing values.
Syslog Drop	The number of dropped syslog packages
Threads	The number of program parts that are running simultaneously. This value can increase with heavy load. Usually, the number should not exceed 100.
Toplist Memory	The amount of RAM that the Toplists ⁴⁰⁰² on this probe are using. Stay below 1 GB memory usage (depending on the available memory on the probe system). If necessary, reduce the number of Toplists or distribute them among probes.
Trap Buffer	The number of buffered SNMP traps. Usually, this value should be 0 (or very low). Investigate increasing values.

More

■ KNOWLEDGE BASE

My probe system is running out of disk space. What can I do?

- <https://kb.paessler.com/en/topic/64628>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

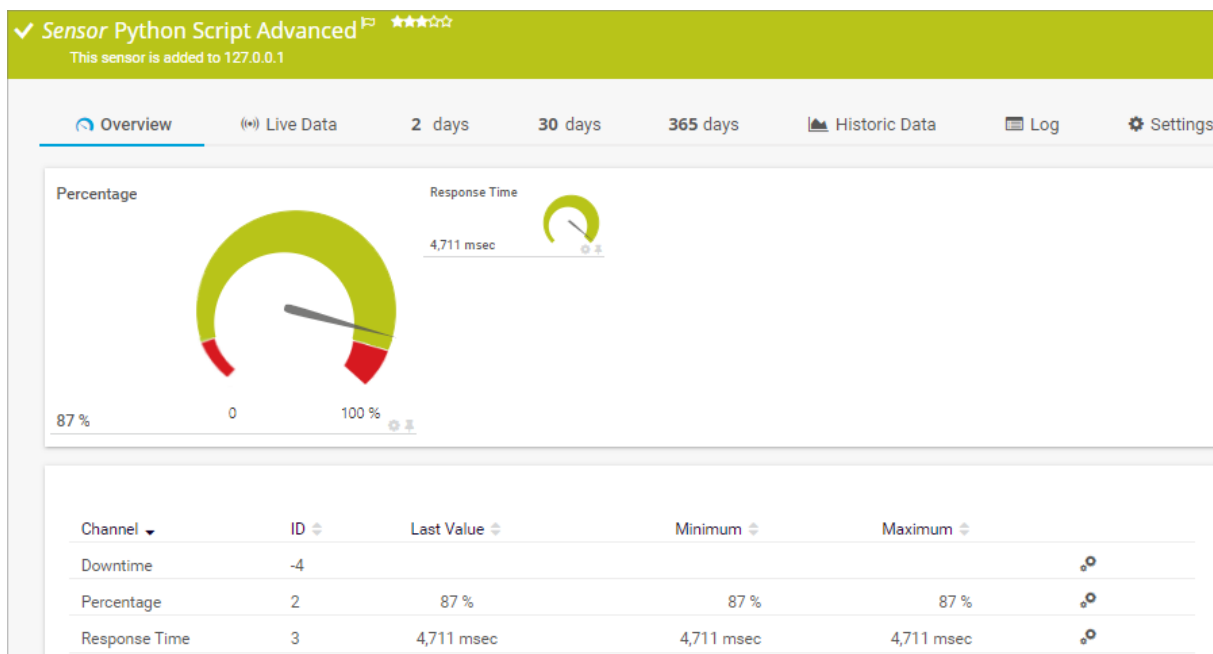
- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.8.124 Python Script Advanced Sensor

The Python Script Advanced sensor executes a Python script on the probe system. This option is available as part of the PRTG API.

i The return value of this sensor must be valid JavaScript Object Notation (JSON) or Extensible Markup Language (XML).

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Python Script Advanced Sensor

Sensor in Other Languages

- Dutch: Python Script Geavanceerd
- French: Script Python avancé
- German: Python-Skript (Erweitert)
- Japanese: Python スクリプト(上級)
- Portuguese: Script Python Avançado
- Russian: Python ()
- Simplified Chinese: Python 脚本高级
- Spanish: Secuencia de comandos Python avanzada

Remarks

- You must store the script file on the probe system. In a cluster, copy the file to every cluster node.
- This sensor does not officially support more than 50 channels. Depending on the data used with this sensor, you might exceed the maximum number of supported channels. In this case, PRTG tries to display all channels. Be aware, however, that you experience limited usability and performance.

- PRTG uses its own Python environment. This is located in the \python subfolder of the PRTG program directory. To avoid issues, we recommend that you do not have other Python environments running on a probe system. We also recommend that you do not uninstall the prtg Python package.
- Print commands in the Python script are not supported and lead to an invalid JSON result.
- Exceptions in the script are not supported.
- Channel values greater than 2^62 are not supported.
- The timeout of the sensor is its [scanning interval](#) ^[2098] minus 1 second. Make sure that your Python script does not run longer than this.
- For best sensor usage, we recommend that the return value is JSON encoded.
- We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
- This sensor has a medium performance impact.
- See the Knowledge Base: [What is the Mutex Name in the EXE/Script Sensor settings?](#)
- See the Knowledge Base: [Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?](#)
- See the Knowledge Base: [After updating to PRTG 20.1.55, my Python Script Advanced sensors are down](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) ^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Sensor Settings

Setting	Description
Python Script	<p>Select a Python script from the list. The sensor executes it with every scanning interval ^[2098].</p> <p>This list shows all Python script files that are available in the \Custom Sensors\python subfolder of the PRTG program directory ^[4526] on the probe system. For the files to appear in this list, store the files in this subfolder with the extension .py.</p> <ul style="list-style-type: none"> ❗ To show the expected values and sensor status, your files must return the expected XML or JSON format to standard output. The values and message must be embedded in the XML or JSON. We recommend JSON-encoded return values. ■ For detailed information on how to create custom sensors and for the return format, see section Custom Sensors ^[4440]. ❗ If you use custom sensors on the cluster probe ^[4560], copy your files to every cluster node.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ pythonxml ▪ python ▪ xml ▪ json

Setting	Description
	<ul style="list-style-type: none"> ▪ script
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings

Important: The Python script file must be stored on the parent probe system of the sensor.

Python Script **i** `sensor_example.py`

Security Context **i**
 Use security context of PRTG probe service
 Use Windows credentials of parent device

Device Credentials **i**
 Do not transmit device credentials
 Transmit Windows credentials
 Transmit Linux credentials
 Transmit SNMP credentials
 Transmit all device credentials

Additional Parameters **i** _____

Mutex Name **i** _____

Sensor Settings

Setting	Description
Python Script	Shows the Python script file that the sensor executes with each scanning interval. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Security Context	Define the Windows user account that the sensor uses to run the Python interpreter: <ul style="list-style-type: none"> ▪ Use security context of PRTG probe service: Run the Python script file under the same Windows user account that the probe runs under. By default, this is the Windows system user account. ▪ Use Windows credentials of parent device: Use the Windows user account from the settings of the parent device^[446].

Setting	Description
Device Credentials	<p>Define if you want to transmit device credentials to the Python script. PRTG adds the device credentials to the JSON object that is passed to the script as a command-line parameter. Choose between:</p> <ul style="list-style-type: none"> Do not transmit device credentials: Transmit no device credentials to the script. Transmit Windows credentials: Transmit Windows credentials to the script. Transmit Linux credentials: Transmit Linux credentials to the script. Transmit SNMP credentials: Transmit SNMP credentials to the script. Transmit all device credentials: Transmit Windows, Linux, and Simple Network Management Protocol (SNMP) credentials to the script. <p>i The sensor transmits all parameters in plain text.</p>
Additional Parameters	<p>Define additional parameters to add to the JSON object that is passed to the script as a command-line parameter. Enter a string or leave the field empty.</p> <p>i The sensor transmits all parameters in plain text.</p>
Mutex Name	<p>Define a mutual exclusion (mutex) name for the process. Enter a string or leave the field empty.</p> <p>i PRTG executes all Python Script Advanced sensors that have the same mutex serially, not simultaneously. This is useful if you use a lot of sensors and want to avoid high resource usage because of simultaneously running processes.</p> <p>■ See the Knowledge Base: What is the Mutex Name in the PRTG EXE/Script settings?</p>

Debug Options

Debug Options

Result Handling **i** Discard result
 Store result

Debug Options

Setting	Description
Result Handling	Define what PRTG does with the sensor result:

Setting	Description
	<ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].Data.txt and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i You can use Store result to inspect the passed JSON object that contains all parameters (PRTG on premises only). This way, you can find out which key you can access when you script.</p> <p>i PRTG masks transmitted passwords in the logfile.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel **ⓘ** Downtime


Graph Type **ⓘ** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p> i You can change the available intervals in the system administration on PRTG on premises installations. </p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p> i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply. </p> <p> i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply. </p> <p> i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply. </p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB ▾
	kbit ▾
	/ ▾
	sec... ▾
Bytes (Memory)	MB ▾
Bytes (Disk)	MB ▾
Bytes (File)	Byte ▾



Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	The values that the Python script returns in several channels

Channel	Description
	 For details about the return value format, see section Custom Sensors 

More

KNOWLEDGE BASE

What is the Mutex Name in the EXE/Script sensor settings?

- <https://kb.paessler.com/en/topic/6673>

Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?

- <https://kb.paessler.com/en/topic/75372>

After updating to PRTG 20.1.55, my Python Script Advanced sensors are down





- <https://kb.paessler.com/en/topic/87502>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

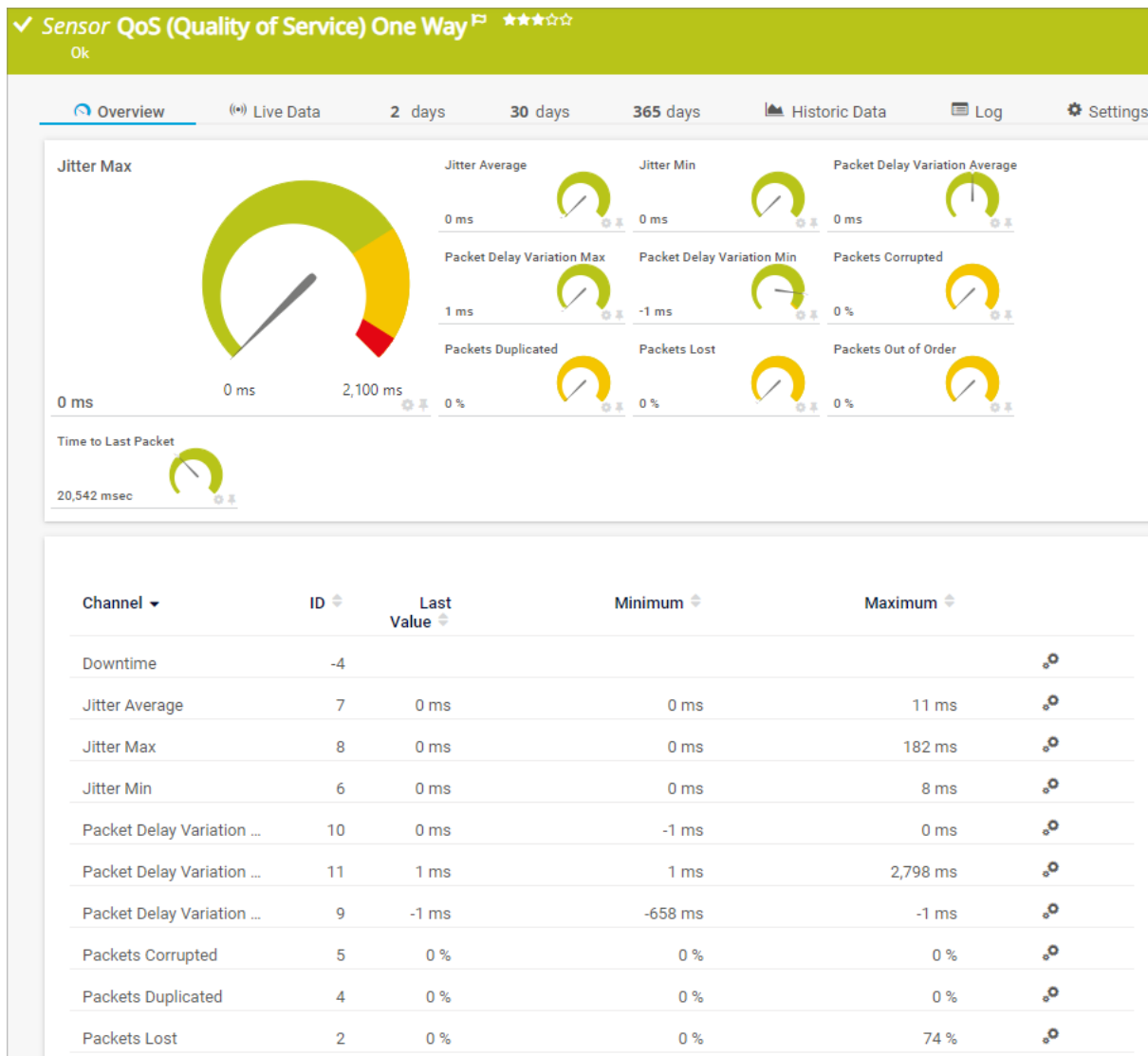
- [List of Available Sensor Types](#) 
- [Additional Sensor Types \(Custom Sensors\)](#) 
- [Channel Settings](#) 
- [Notification Triggers Settings](#) 

7.8.125 QoS (Quality of Service) One Way Sensor

The QoS (Quality of Service) One Way sensor monitors parameters regarding the quality of a network connection between two probes.

i The sensor sends a series of User Datagram Protocol (UDP) packets from the source probe to a target probe and measures several parameters.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



QoS (Quality of Service) One Way Sensor


Sensor in Other Languages

- Dutch: QoS (Quality of Service) Eén Richting
- French: QoS (Quality of Service) à sens unique
- German: QoS (Quality of Service) Unidirektional
- Japanese: 一方向 QoS(Quality of Service)

- Portuguese: QoS (Qualidade de serviço) Unidirecional
- Russian:
- Simplified Chinese: QoS (服务质量) 单向
- Spanish: QoS (Quality of Service) unidireccional

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- You must configure at least one [remote probe](#) in your PRTG on premises setup for this sensor to work, and at least two remote probes in PRTG Hosted Monitor.
- You can create this sensor on the probe device of a local probe or a remote probe.

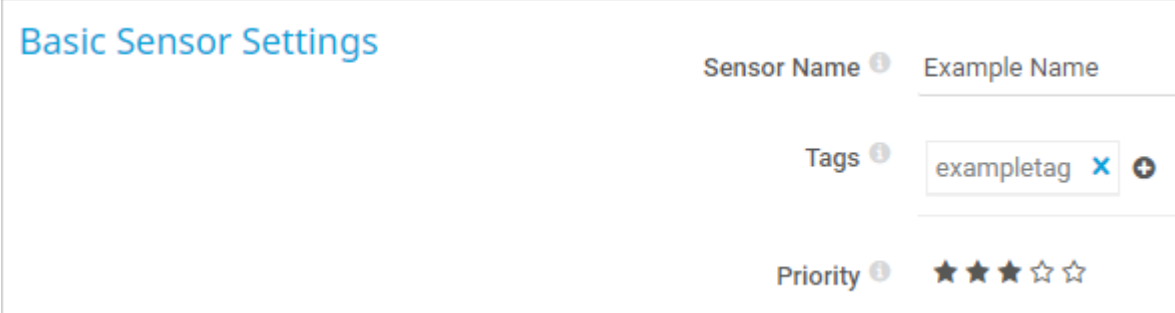
 You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor


The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.



Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p> If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags [145] that the sensor inherits [145] from its parent device [140], parent group [139], and parent probe [139]. <p>i This setting is for your information only. You cannot change it.</p>
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited [145]. <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ qossensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Quality of Service Measurement

Quality of Service Measurement

Timeout (Sec.) **i** 60

Target Probe **i** HQ (Local Probe) (127.0.0.1) ▼

Target Host/IP Address **i** 127.0.0.1

Port **i** 50000

Number of Packets **i** 1000

Packet Size (Bytes) **i** 172

Packet Delay (ms) **i** 20

Please use "Windows Policy-based Quality of Service" if you need to apply QoS parameters to the test packets of this sensor (for example, DSCP parameters). These parameters cannot be set from inside PRTG. See <http://technet.microsoft.com/en-us/library/hh831689.aspx> and <http://msdn.microsoft.com/library/aa374094.aspx> for details.

Quality of Service Measurement

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
Target Probe	<p>Define the target probe that receives the UDP packets. The dropdown list shows all local probes and remote probes in your setup.</p> <p>If you want to run the sensor on the local probe, select a remote probe as the Target Probe. If no remote probe is available, install and connect a remote probe first.</p> <p>If you want to run the sensor on a remote probe, select either a different remote probe or the local probe as the target. The sensor measures values for the network track between the parent probe and the target probe.</p> <p>i You must ensure that firewalls or network address translation (NAT) rules allow UDP packets to reach the target probe. The probe automatically opens the Windows firewall on the target system.</p> <p>☁ In PRTG Hosted Monitor, you can only select a different remote probe as the target probe. QoS measurements for connections to the hosted probe are not possible.</p>
Target Host/IP Address	<p>Define the IP address of the target probe.</p> <p>i If you do not use NAT rules, this is usually the IP address in parentheses next to the probe name under Target Probe.</p>
Port	<p>Define the source and target port for the UDP packets. Both the source probe and the target probe use this port. Enter an integer value between 1024 and 65536.</p> <p>i Use a different port for each QoS (Quality of Service) One Way sensor to make sure that packets can be assigned correctly.</p> <p>i The port must be available on both the source system and the target system.</p>
Number of Packets	<p>Define the number of packets that the sensor sends with each scanning interval. Enter an integer value. The default value is 1000.</p> <p>i We recommend that you use the default value.</p>
Packet Size (Bytes)	<p>Define the size of the packets in bytes that the sensor sends. Enter an integer value. The default value is 172.</p> <p>i We recommend that you use the default value.</p>

Setting	Description
Packet Delay (ms)	<p>Define the time in milliseconds (ms) that the sensor waits between two packets. Enter an integer value. The default value is 20.</p> <p>i We recommend that you use the default value.</p>

Sensor Display

Sensor Display

Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click under the corresponding setting name to disable the inheritance and to display its options.


For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
<input type="radio"/> inherit from  Root	Scanning Interval ⓘ 60 seconds
	If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None


Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays


Setting	Description
	<ul style="list-style-type: none"> ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency.


Setting	Description
	<ul style="list-style-type: none"> Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies [4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector [257] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>For more details on access rights, see section Access Rights Management.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Jitter Average	The average jitter in milliseconds (ms)
Jitter Max	The maximum jitter in ms i This channel is the primary channel by default.
Jitter Min	The minimum jitter in ms
Packet Delay Variation Average	The average packet delay variation in ms
Packet Delay Variation Max	The maximum packet delay variation in ms

Channel	Description
Packet Delay Variation Min	The minimum packet delay variation in ms
Packets Corrupted	The corrupted packets in percent
Packets Duplicated	The duplicated packets in percent
Packets Lost	The lost packets in percent
Packets Out Of Order	The out of order packets in percent
Time To Last Packet	The time to the last packet in msec

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>





■ PAESSLER WEBSITE

How to connect PRTG through a firewall in 4 steps

- <https://www.paessler.com/support/how-to/firewall>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

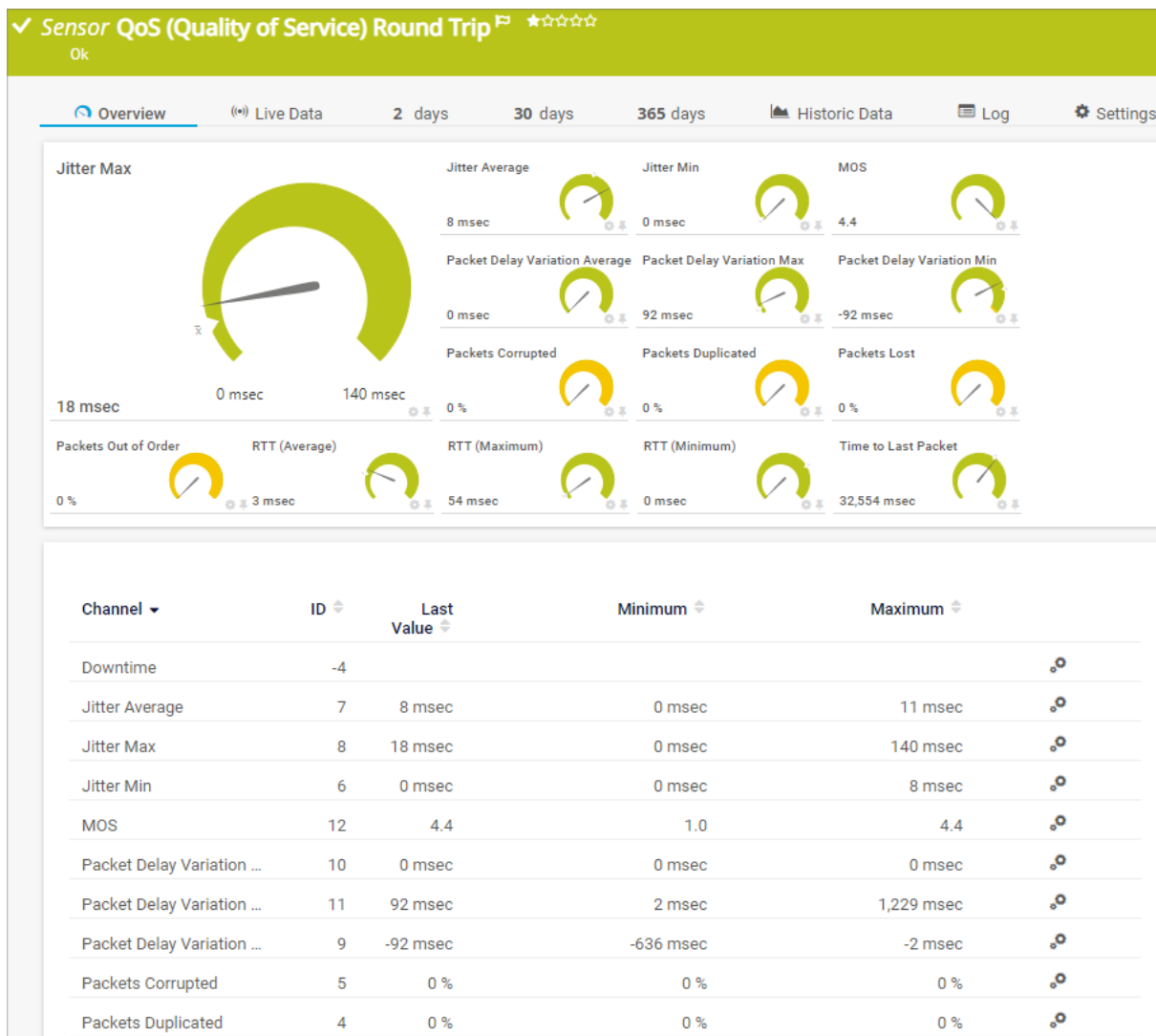
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.126 QoS (Quality of Service) Round Trip Sensor

The QoS (Quality of Service) Round Trip sensor monitors parameters regarding the quality of a network connection between two probes.

i The sensor sends a series of User Datagram Protocol (UDP) packets from the source probe to a target probe at the end of the connection line. Then, the target probe sends the packets back to the source probe.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



QoS (Quality of Service) Round Trip Sensor

Sensor in Other Languages

- Dutch: QoS (Quality of Service) Heen en weer
- French: Aller-retour du QoS (Quality of Service)
- German: QoS (Quality of Service) Round Trip
- Japanese: ラウンドトリップ QoS(Quality of Service)

- Portuguese: Percurso de ida e volta QoS (Qualidade de serviço)
- Russian:
- Simplified Chinese: QoS (服务质量) 往返
- Spanish: Ida y vuelta QoS (Calidad de servicio)

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- You must configure at least one [remote probe](#) in your PRTG on premises setup and at least two remote probes in PRTG Hosted Monitor, or you need to set up the [PRTG QoS Reflector](#) tool on the target machine at the endpoint of the connection that you want to monitor.
- You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
- See the Knowledge Base: [How can I monitor QoS round trips without using remote probes?](#)
- See the Knowledge Base: [How does PRTG calculate the MOS score for QoS sensors?](#)
- See the Knowledge Base: [What connection settings are necessary for the QoS \(Quality of Service\) Round Trip sensor?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A text input field containing "exampletag" with a blue 'X' icon to the right and a plus sign icon to the left of the input field.
- Priority:** A star rating system showing 3 out of 5 stars filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ qossensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Quality of Service Measurement

Quality of Service Measurement

Timeout (Sec.)

QoS Target PRTG probe (recommended)
 Custom target

Target Probe

Target Host/IP Address

Port

Number of Packets









Packet Size (Bytes)

Packet Delay (ms)

Use "Windows Policy-based Quality of Service" if you need to apply QoS parameters to the test packets of this sensor (for example, DSCP parameters). These parameters cannot be set from inside PRTG. See <https://technet.microsoft.com/en-us/library/hh831689.aspx> and <https://msdn.microsoft.com/library/aa374094.aspx> for details.

Quality of Service Measurement

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
QoS Target	<p>Define the type of target that receives the UDP packets:</p> <ul style="list-style-type: none"> ▪ PRTG probe (recommended): Use a probe as the connection endpoint. ▪ Custom target: Use the PRTG QoS Reflector as the connection endpoint. <p>■ For more information about the QoS Reflector, see the Knowledge Base: How can I monitor QoS round trips without using remote probes?</p>
Target Probe	<p>This setting is only visible if you select PRTG probe above. Define the target probe that receives the UDP packets. The dropdown list shows all local probes and remote probes in your setup.</p> <p>If you want to run the sensor on the local probe, select a remote probe as the Target Probe. If no remote probe is available, install and connect a remote probe first. Alternatively, you can use the PRTG QoS Reflector.</p> <p>If you want to run the sensor on a remote probe, select either a different remote probe or the local probe as the target. The sensor measures values for the network track between the parent probe and the target probe.</p>

Setting	Description
	<p> You must ensure that firewalls or network address translation (NAT) rules allow UDP packets to reach the target probe. The probe automatically opens the Windows firewall on the target system. For details, see the Knowledge Base: What connection settings are necessary for the QoS (Quality of Service) Round Trip Sensor?</p> <p> In PRTG Hosted Monitor, you can only select a different remote probe as the target probe. QoS measurements for connections to the hosted probe are not possible.</p>
Target Host/IP Address	<p>Define the IP address of the QoS target:</p> <ul style="list-style-type: none"> ▪ If you use the QoS Reflector, enter the address of the system on which the reflector script runs. ▪ If you use a probe, enter the address of the probe to which the source probe connects. <p> If you do not use NAT rules, this is usually the IP address in parentheses next to the probe name under Target Probe.</p>
Port	<p>Define the source and target port for the UDP packets. Both the source probe and the target probe use this port. Enter an integer value between 1024 and 65536.</p> <p> Use a different port for each QoS (Quality of Service) Round Trip sensor to make sure that packets can be assigned correctly.</p> <p> The port must be available on both the source system and the target system.</p>
Number of Packets	<p>Define the number of packets that the sensor sends with each scanning interval. Enter an integer value. The default value is 1000.</p> <p> We recommend that you use the default value.</p>
Packet Size (Bytes)	<p>Define the size of the packets in bytes that the sensor sends. Enter an integer value. The default value is 172.</p> <p> We recommend that you use the default value.</p>
Packet Delay (ms)	<p>Define the time in milliseconds (ms) that the sensor waits between two packets. Enter an integer value. The default value is 20.</p> <p> We recommend that you use the default value.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

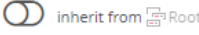
Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click ⓘ to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
	Scanning Interval ⓘ 60 seconds
	If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Jitter Average	The average jitter in in milliseconds (msec)
Jitter Max	The maximum jitter in msec  This channel is the primary channel by default.
Jitter Min	The minimum jitter in msec
MOS	The mean opinion score (MOS)
Packet Delay Variation Average	The average packet delay variation in msec

Channel	Description
Packet Delay Variation Max	The maximum packet delay variation in msec
Packet Delay Variation Min	The minimum packet delay variation in msec
Packets Corrupted	The corrupted packets in percent
Packets Duplicated	The duplicated packets in percent
Packets Lost	The lost packets in percent
Packets Out Of Order	The out of order packets in percent
RTT (Average)	The average round-trip time (RTT) in msec
RTT (Maximum)	The maximum RTT in msec
RTT (Minimum)	The minimum RTT in msec
Time To Last Packet	The time to the last packet in msec

More

■ KNOWLEDGE BASE

How can I monitor QoS round trips without using remote probes?

- <https://kb.paessler.com/en/topic/61176>

How does PRTG calculate the MOS score for QoS sensors?

- <https://kb.paessler.com/en/topic/59491>

What connection settings are necessary for the QoS (Quality of Service) Round Trip sensor?

- <https://kb.paessler.com/en/topic/65410>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>





■ PAESSLER WEBSITE

How to connect PRTG through a firewall in 4 steps

- <https://www.paessler.com/support/how-to/firewall>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

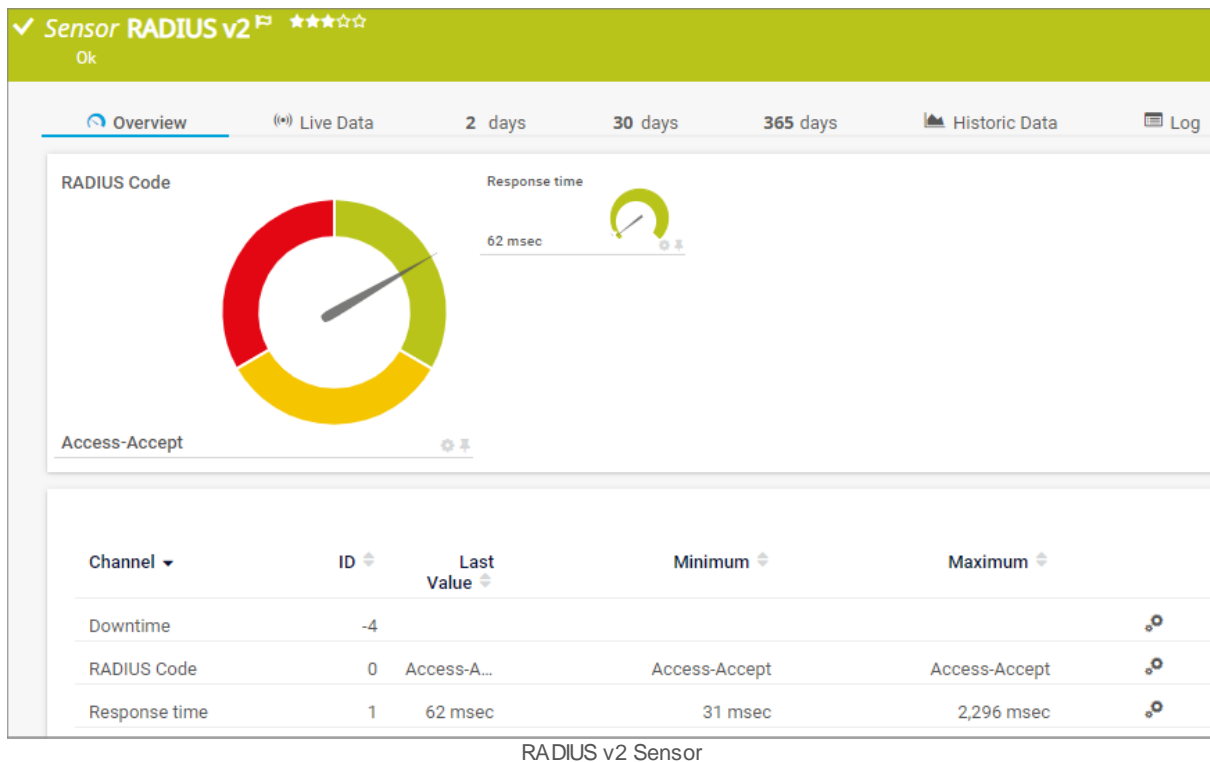
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.127 RADIUS v2 Sensor

The RADIUS v2 sensor monitors a Remote Authentication Dial-In User Service (RADIUS) server according to [RFC 2865](#).

i The sensor tries to authenticate itself against the server. If authentication fails, the sensor shows the Down [status](#)¹⁹⁷.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)²¹³⁹.



Sensor in Other Languages



- Dutch: RADIUS v2
- French: RADIUS v2
- German: RADIUS v2
- Japanese: RADIUS V2
- Portuguese: RADIUS v2
- Russian: RADIUS v2
- Simplified Chinese: RADIUS v2
- Spanish: RADIUS v2

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.

- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor only supports plain text authentication (Password Authentication Protocol (PAP)).
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a blue 'x' to remove it and a '+' to add more.
- Priority:** A section with five stars, where the first three are filled, indicating a priority of 3.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree , as well as in alarms , logs , notifications , reports , maps , libraries , and tickets .


Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ radiussensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

RADIUS Specific

RADIUS Specific	
Timeout (Sec.) ⓘ	60
User Name ⓘ	User
Password ⓘ	.....
Secret ⓘ	.....
Port ⓘ	1812
NAS Identification ⓘ	<input checked="" type="radio"/> Use NAS IP address <input type="radio"/> Use NAS identifier
NAS IP Address ⓘ	192.0.2.0
Result Handling ⓘ	<input checked="" type="radio"/> Discard result <input type="radio"/> Store result

RADIUS Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
User Name	<p>Enter the user name for the authentication against the RADIUS server. Enter a string.</p>
Password	<p>Enter the password for the authentication between the client (the probe system) and the RADIUS server. Enter a string.</p>
Secret	<p>Enter the shared secret for the authentication between the authenticator (the probe system) and the RADIUS server. Enter a string.</p>
Port	<p>Enter the number of the port for the connection to the RADIUS server. The default value is 1812. Enter an integer value.</p>
NAS Identification	<p>Define how to identify the network access server (NAS):</p> <ul style="list-style-type: none"> ▪ Use NAS IP address: Enter the NAS IP Address for identification below. ▪ Use NAS identifier: Enter the NAS Identifier below.
NAS IP Address	<p>This setting is only visible if you select Use NAS IP address above. Enter a valid IP address for the NAS that originates the access request.</p>
NAS Identifier	<p>This setting is only visible if you select Use NAS identifier above. Enter an identifier for the NAS that originates the access request.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
Maintenance Window	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p> <p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
RADIUS Code	<p>The RADIUS code</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: Accept-Accept ▪ Warning status: Access-Challenge ▪ Down status: Access-Reject <p> This channel is the primary channel by default.</p>
Response Time	The response time in milliseconds (msec)

More

 KNOWLEDGE BASE

Part 7: Device and Sensor Setup | 8 Sensor Settings
127 RADIUS v2 Sensor

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

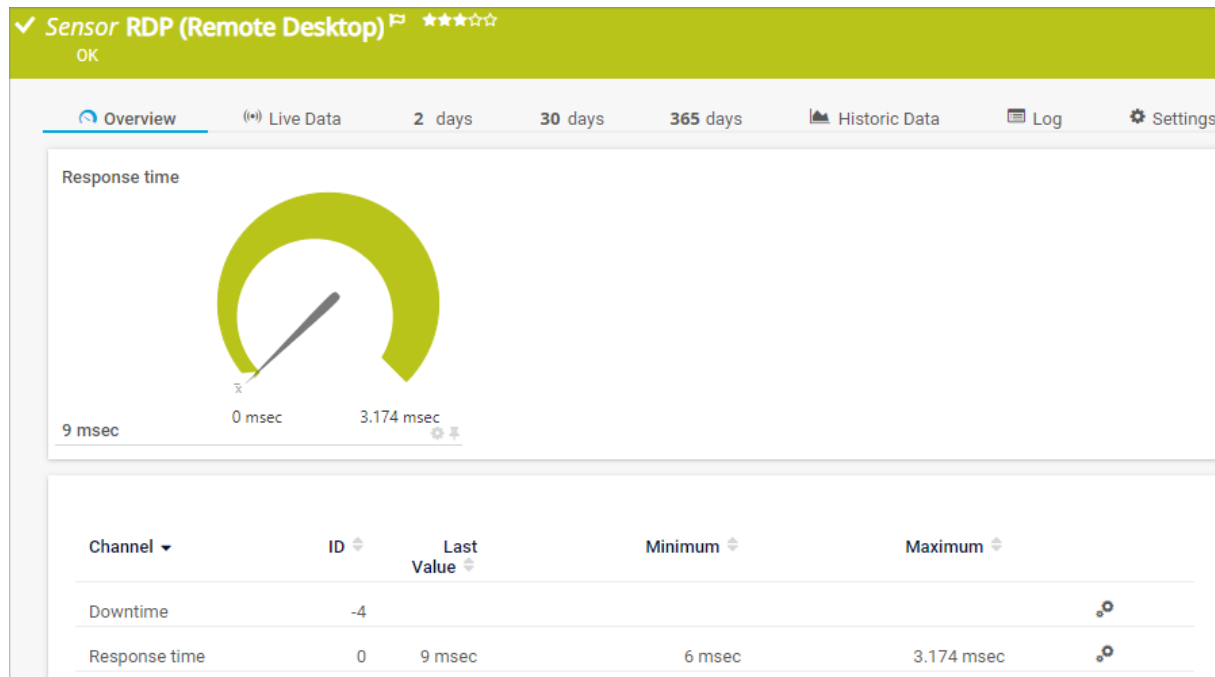
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.128 RDP (Remote Desktop) Sensor

The RDP (Remote Desktop) sensor monitors remote desktop services such as Remote Desktop Protocol (RDP) or Terminal Services Client.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



RDP (Remote Desktop) Sensor

Sensor in Other Languages

- Dutch: RDP (Remote Desktop)
- French: RDP (Bureau à distance)
- German: RDP (Remotedesktop)
- Japanese: RDP(リモートデスクトップ)
- Portuguese: RDP (desktop remoto)
- Russian: RDP ()
- Simplified Chinese: RDP (远程桌面)
- Spanish: RDP (Escritorio remoto)

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has a title bar 'Basic Sensor Settings'. Below the title bar, there are three rows of settings:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A text input field containing 'exampletag' with a blue 'x' icon to the right and a plus sign icon to the far right.
- Priority**: A star rating system showing three filled stars and two empty stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> rdpsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Specific

Sensor Specific	
Timeout (Sec.) i	60
Port i	3389

Sensor Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
Port	<p>Enter the number of the port to which this sensor connects. Enter an integer value. The default value is 3389.</p> <p>i We recommend that you use the default value.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

-  Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Response Time	<p>The response time in milliseconds (msec)</p> <p> This channel is the primary channel by default.</p>

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

Does PRTG impair my Citrix environment?

- <https://kb.paessler.com/en/topic/61880>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

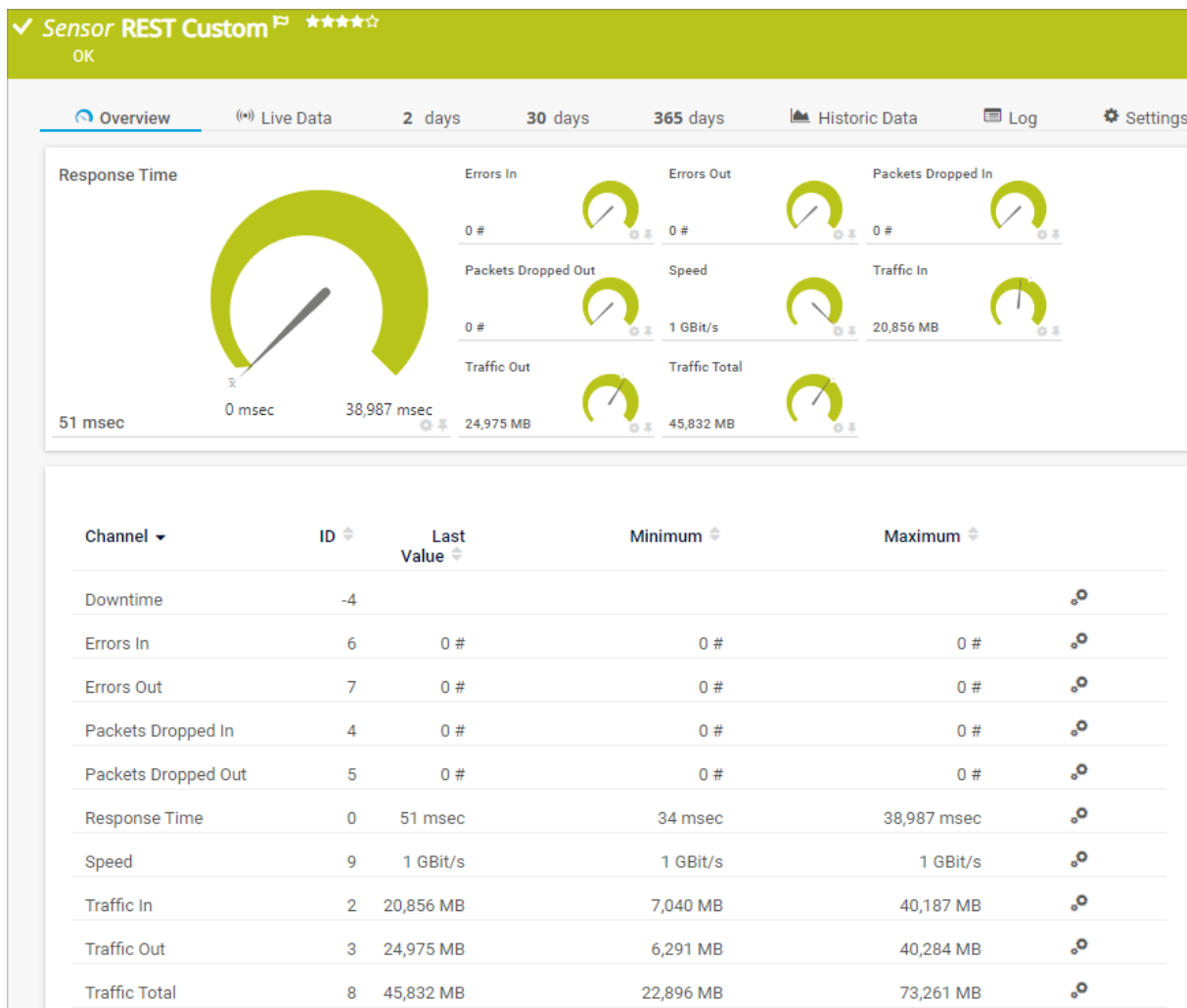
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.129 REST Custom Sensor

The REST Custom sensor queries a Representational State Transfer (REST) application programming interface (API) endpoint and maps the JavaScript Object Notation (JSON) or Extensible Markup Language (XML) result to sensor values.

i The mapping rule must be available as a REST configuration file in JSON template (*.template) format according to the PRTG API definition for custom sensors.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



REST Custom Sensor

Sensor in Other Languages

- Dutch: REST Aangepast
- French: REST personnalisé
- German: REST (Benutzerdef.)
- Japanese: REST カスタム
- Portuguese: REST (Customizado)

- Russian: REST
- Simplified Chinese: REST 自定义
- Spanish: REST personalizado

Remarks

- You must store the REST configuration file that contains the mapping rules on the probe system. In a cluster, copy the file to every cluster node.
 - This sensor does not officially support more than 50 channels. Depending on the data used with this sensor, you might exceed the maximum number of supported channels. In this case, PRTG tries to display all channels. Be aware, however, that you experience limited usability and performance. If you have more than 50 channel mappings in your REST configuration file, the sensor shows an error.
 - This sensor supports the IPv6 protocol.
 - This sensor has a medium performance impact.
 - In a cluster, status changes triggered by limits only work on the master node.
- ☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

REST Specific

Setting	Description
REST Configuration	<p>Select a REST configuration file from the list. The sensor uses it to map the JSON or XML result from the REST query to sensor values.</p> <p>The default REST configuration file is channelDiscovery. If you select this file, the sensor parses the returned JSON or XML and automatically creates channels based on available values: one channel for each number and boolean for strings if they are convertible into numbers.</p> <p>This list shows all REST configuration files that are available in the \Custom Sensors\rest subfolder of the PRTG program directory on the probe system. For the files to appear in this list, store the files as JSON template (*.template) in this subfolder.</p> <p>☁ To use custom REST configurations in PRTG Hosted Monitor, contact the Paessler support team, or add this sensor to a remote probe instead and save the file on the remote probe system.</p> <p>ⓘ To show the expected values and sensor status, your files must return the expected JSON format. Channels, values, and messages must be embedded in valid JSON using JSONPath. For details, see section Define Channels and Select Channel Values.</p>

Setting	Description
	<ul style="list-style-type: none"> For detailed information on how to create custom sensors and for the return format, see section Custom Sensors. If you use custom sensors on the cluster probe, copy your files to every cluster node.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag', and a 'Priority' field with five stars, three of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). i For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ restcustomsensor ▪ restsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

REST Specific

REST Specific

Request Method **i** GET (default)
 POST

Request Protocol **i** HTTP (default)
 HTTPS

Authentication Method **i** No authentication (default)
 Basic authentication
 Basic authentication with Windows credentials from parent device
 Token

HTTP Headers **i** Do not send custom HTTP headers
 Send custom HTTP headers

Timeout (Sec.) **i** 60

REST Query **i** :4444/api/objects/aws/region

REST Configuration **i** *channelDiscovery*

REST Specific

Setting	Description
Request Method	<p>Select an HTTP request method to determine how the sensor requests the REST API.</p> <ul style="list-style-type: none"> ▪ GET (default): Use the GET method to request the REST API. ▪ POST: Use the POST method to request the REST API. <p>i If you use the POST method, use the content type, for example application/x-www-form-urlencoded, as HTTP header. In section HTTP Headers, select Use custom HTTP headers and enter the content type in the Custom HTTP Headers field.</p>
Postdata	<p>This setting is only visible if you select POST above. Enter the data part for the POST request.</p> <p>i If you use the POST method, use the content type, for example application/x-www-form-urlencoded, as HTTP header. In section HTTP Headers, select Use custom HTTP headers and enter the content type in the Custom HTTP Headers field.</p>
Request Protocol	<p>Define the security protocol of the HTTP request:</p> <ul style="list-style-type: none"> ▪ HTTP (default): Send the REST query via HTTP (not secure). ▪ HTTPS: Send the REST query via secure HTTPS.
Certificate Acceptance	<p>This setting is only visible if you select HTTPS above. Select the kind of certificates that you want the sensor to accept for the connection:</p> <ul style="list-style-type: none"> ▪ Accept trusted certificates only (default): Accept only trusted certificates issued by a certificate authority (CA). ▪ Accept all certificates: Accept all certificates, including self-signed certificates.
Authentication Method	<p>Select the authentication method for access to the REST API:</p> <ul style="list-style-type: none"> ▪ No authentication (default): Do not use any authentication for the request. ▪ Basic authentication: Use a user name and password for authentication. ▪ Basic authentication with Windows credentials from parent device: Use the Windows credentials from the parent device. <ul style="list-style-type: none"> ■ For more information, see section Inheritance of Settings ¹⁴². ▪ Token: Use a JSON Web Token (JWT) or OAuth2 Bearer Token for authentication.
User Name	<p>This setting is only visible if you select Basic authentication above. Enter a user name for the REST API. Enter a string.</p>

Setting	Description
Password	This setting is only visible if you select Basic authentication above. Enter a password for the REST API. Enter a string.
Token	This setting is only visible if you select Token above. Enter a JWT or OAuth2 Bearer Token that the REST API requires for authentication.
HTTP Headers	Define if you want to send custom HTTP headers to the target URL: <ul style="list-style-type: none"> Do not send custom HTTP headers Send custom HTTP headers
Custom HTTP Headers	<p>This setting is only visible if you select Use custom HTTP headers above. Enter a list of custom HTTP headers with their respective values that you want to transmit to the target URL, each pair in one line. The syntax of a header-value pair is <code>header1:value1</code>.</p> <p>i If you enter more than one header-value pair, you must separate them with delimiters. The syntax is <code>header1:value1|header2:value2|header3:value3</code></p> <p>i The sensor does not support the header field names <code>user-agent</code>, <code>content-length</code>, <code>host</code>.</p> <p>i Make sure that the HTTP header statement is valid. Otherwise, the sensor request cannot be successful.</p> <p>i If you select the POST Request Method setting above, enter the content type, for example <code>application/x-www-form-urlencoded</code>, as the custom HTTP header.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
REST Query	<p>Shows the REST query that this sensor executes. To change it, enter a valid query for the target REST API. The syntax is: <code>[:port]/path[?var1=val1&...]</code></p> <p>i The sensor always inherits the first part of the address from the address of the parent device. Only enter the path to the REST endpoint of the parent device. You can override the port if necessary.</p> <p>For example, if you add the sensor to a probe device, a query to the REST API of your PRTG installation that returns the number of sensors on the probe could look like this:</p> <pre style="border: 1px solid gray; padding: 5px;">/api/table.json? id=1&passhash=<passhash>&username=<username>&content=sensorxr ef&noraw=1&filter_basetype=probe&columns=totalsens=extraw</pre>

Setting	Description
REST Configuration	<p>Shows the REST configuration file that the sensor uses to map the returned JSON or XML into sensor values.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options

Result Handling **i**

Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display




Primary Channel **i** Downtime

Graph Type **i**


Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Proxy Settings for HTTP Sensors

Click  to interrupt the [inheritance](#)¹⁴².

The proxy settings determine how a sensor connects to a URL. You can enter data for an HTTP proxy server that sensors use when they connect via HTTP or HTTPS.

 This setting only applies to HTTP sensors and how they monitor. To change the proxy settings for the PRTG core server, see section [Core & Probes](#)⁴²⁰³.

Proxy Settings for HTTP Sensors

IP Address/DNS Name ⓘ	192.0.2.0
Port ⓘ	8080
User Name ⓘ	johnqpublic
Password ⓘ	.....



Proxy Settings for HTTP Sensors

Setting	Description
IP Address/DNS Name	Enter the IP address or Domain Name System (DNS) name of the proxy server. If you leave this field empty, HTTP sensors do not use a proxy.
Port	Enter the port number of the proxy. The default is 8080. Enter an integer value.
User Name	If the proxy requires authentication, enter the user name for the proxy login. ⓘ Only basic authentication is available. Enter a string or leave the field empty.
Password	If the proxy requires authentication, enter the password for the proxy login. ⓘ Only basic authentication is available. Enter a string or leave the field empty.

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

Scanning Interval ⓘ	60 seconds
 inherit from  Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from: <ul style="list-style-type: none"> ▪ 30 seconds

Setting	Description
	<ul style="list-style-type: none"> ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

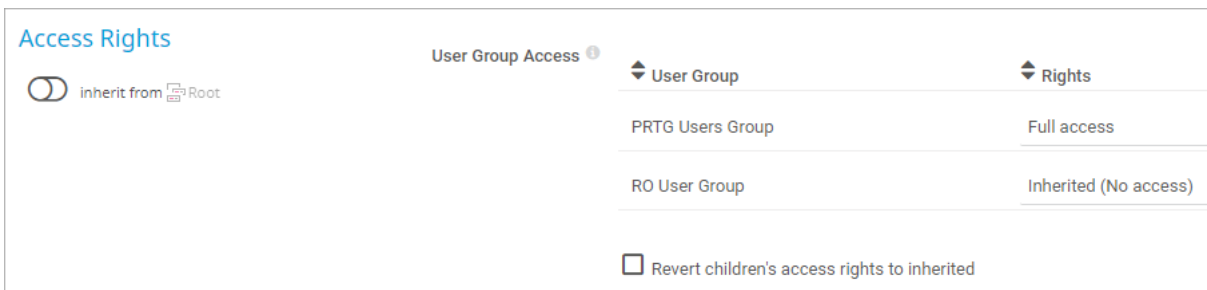
Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights


inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Define Channels and Select Channel Values

In your REST configuration file, you have to define which values of the returned JSON or XML are mapped to which channels.

- A channel is defined by the channel key in your REST configuration. See the JSON Return Format: Minimum Example in section [Custom Sensors](#) ⁴⁴⁰.

- A channel value is defined by an expression that retrieves and processes the value from the JSON source. The expression can contain [JSONPath](#) ²¹⁶⁶, [gval operators](#) ²¹⁷⁰, and [functions](#) ²¹⁷².

Example

For this example, we take PRTG as REST endpoint and query the sensor status statistics for the local probe. The REST query that we enter in the sensor settings looks like this:

```
/api/table.json?id=1&passhash=<passhash>&username=<username>&content=sensorxref&
noraw=1&filter_basetype=probe&columns=totalsens=extraw,upsens=extraw,
downsens=extraw,partialdownsens=extraw,warnsens=extraw,pausedsens=extraw,
unusualsens=extraw,undefinedsens=extraw,downacksens=extraw
```

This REST query returns some JSON, for example:

```
{
  "prtg-version": "17.3.33.2517",
  "treesize": 1,
  "state": "ok",
  "sensorxref": [
    {
      "totalsens": 28,
      "upsens": 18,
      "downsens": 0,
      "partialdownsens": 0,
      "warnsens": 0,
      "pausedsens": 9,
      "unusualsens": 1,
      "undefinedsens": 0,
      "downacksens": 0
    }
  ]
}
```

Your REST configuration has to translate this JSON for the sensor. It has to be available as JSON template (*template) in the \Custom Sensors\rest subfolder of the [PRTG program directory](#) ⁴⁵²⁶ on the probe system. See section [Custom Sensors](#) ⁴⁴⁴⁰ for details about the JSON return format.

The following example returns two channels from the JSON resource that are added to the sensor in PRTG, Total (total sensor count) and Alarms (sensors in the Down status), each selected by their keys in the returned JSON.

```
{
  "prtg": {
    "result": [
      {
        "channel": "Total" ,
        "value": $.sensorxref[0].totalsens
      },
      {
        "channel": "Alarms" ,
        "value": $.sensorxref[0].downsens
      }
    ]
  }
}
```

The channel values are the values of the corresponding properties of the REST result defined in JSONPath notation, `$.sensorxref[0].totalsens` (28) and `$.sensorxref[0].downsens` (0).

Each value's property (destination) and the text property is set to the appropriate transformation rules from source to destination. This is the JSON path of the source. The sensor replaces each path with the value from the source.

- ⓘ Several REST configuration files are available in the `\Custom Sensors\rest` subfolder by default. They are ready for use. You can also analyze them to see how to write your own REST configuration.

JSONPath

The REST Custom sensor uses [JSONPath](#) to assign values from the returned JSON to channels. With JSONPath, you provide the path to the value in the JSON source that you want to monitor in a channel.

- ⓘ The JSONPath implementation that PRTG uses for the REST Custom sensor might differ from other JSONPath implementations. You can [test and debug your definitions](#)^[2174] using the command line. To test simple JSONPath expressions and calculations, you can also use [JSONPath Online Evaluator](#)^[2176], for example. Note that this tool might not work properly with complex JSONPath expressions that PRTG supports.

Example

To demonstrate the practical usage of JSONPath, we use this JSON example that a REST query might have returned as reference in this section.

```
{
  "devices": [
    {
      "firmware": {
        "id": "0.7",
        "date": "2017-05-18T17:11:43.7049944Z",
        "channel": "beta"
      },
      "networks": {
        "a": {
          "rx_bytes": 35985021,
          "rx_packets": 176791,
          "rx_errors": 0,
          "rx_dropped": 476,
          "tx_bytes": 7229493,
          "tx_packets": 35518,
          "tx_errors": 0,
          "tx_dropped": 1
        },
        "b": {
          "rx_bytes": 40085321,
          "tx_bytes": 55294975
        }
      }
    },
    {
      "networks": {
        "a": {
          "rx_bytes": 63685865,
          "tx_bytes": 7229472
        }
      }
    }
  ]
}
```

REST Custom Sensor: JSONPath

Root The dollar sign (\$) matches the root element of the JSON data.

Child You can match a child with .<key> or [<key>]

REST Custom Sensor: JSONPath

- `.<key>` must only contain letters, numbers, and underscore (`_`). Hyphens (`-`) are not supported.
- `[<key>]` must only contain a number or a quoted string.

Example

This expression matches 35985021 in the example above:

```
$.devices.0.networks.a.rx_bytes
```

You get the same result with this expression:

```
$["devices"][0]["networks"]["a"]["rx_bytes"]
```

If an element contains a hyphen (`-`), the `.<key>` notation does not work. Use the `[<key>]` notation in this case:

```
$["data"][0]["system-stats"]["temps"]["Board (CPU)"]
```

Wildcard

To match multiple values, you can use the asterisk symbol (`*`).

- `*`
- `[*]`

Example

This expression matches 35985021 and 40085321 in the example above:

```
$.devices[0].networks.*.rx_bytes
```

Recursive Descent

You can match all subitems of a node with two dots (`..`).

Example

This expression matches 7229493 and 55294975 and 7229472 in the example above:

```
$..tx_bytes
```

Union

You can match multiple children with `[<key1>,<key2>,<...>]`.

Example

This expression matches 35985021 and 7229493 in the example above:

```
$.devices.0.networks.a["rx_bytes","tx_bytes"]
```

Slice

You can match multiple children of an array with `[<begin>:<end>]` or `[<begin>:<end>:<step>]`.

- By default, **begin**, **end**, and **step** are either integers or empty.
- The default approach is to go step by step from the first array element to the last element.

REST Custom Sensor: JSONPath

- **Step** can also be a negative integer to go through the array in reversed order.

 Example

This expression matches 63685865 in the example above:

```
$.devices[-1:].networks.a.rx_bytes
```

Current

The @ symbol matches the current element.

 Example

This expression matches 40.085321 and 55.294975 in the example above and can be used to receive a percentage value:

```
$.devices[1].networks.a["rx_bytes","tx_bytes"]
(@/100000000*100)
```

Filter

You can filter matches with [?<expression>].

 Example

This expression matches 35985021 in the example above because the first device is the only one with a beta channel:

```
$.devices[?@.firmware.channel=="beta"].networks.a.rx_bytes
```

Script

You can modify matches with (<expression>) and keys with [<expression>].

 Example

This expression matches true and false in the example above because only the first device has a beta channel:

```
$.devices[*](@.firmware.channel=="beta")
```

Placeholder

Placeholders give access to values of wildcards in a match. A placeholder #n (where n is a natural number) represents the value of the nth wildcard. You can use this in the keys of JSON arrays.

 Example

This expression creates a JSON map from ids to the corresponding firmware channel and matches {"0.7":"beta"} in the example above:

```
{$.devices[#0].id:$.devices[*].channel}
```

 This is an extension of the official JSONPath.

Constant

- Numeric constants as 64-bit floating point: 12345.678
- String constants with double quotes: "switch"

REST Custom Sensor: JSONPath

- Boolean constants: true and false
- Operator
 - Parentheses control the order of evaluation: (<expression>)
 - Arrays with brackets: [<expression>, <expression>, ...]
 - Objects: {<expression>:<expression>, <expression>:<expression>, ...}
 - Conditionals: <condition> ? <expression> : <expression>

Calculating Channel Values and Functions

You can perform calculations with the values of the source JSON or XML. The sensor uses the Paessler [gval](#) package for the calculations. For details, refer to the [gval documentation](#)^[2170].

The following operators and functions are available to calculate channel values.

REST Custom Sensor: Operators

	Operator	Description	Operand Type	Output Type
Infix Modifiers	+	plus	number	number
	-	minus	number	number
	*	times	number	number
	**	power of	number	number
	%	modulo	number	number
	/	divide	number	number
	&	bitwise and	number	number
	|	bitwise or	number	number
	^	bitwise xor	number	number
	<<	shift left	number	number
>>	shift right	number	number	

REST Custom Sensor: Operators

Logical Infix Operators	>	greater than	number/string	bool
	>=	equal or greater than	number/string	bool
	<	less than	number/string	bool
	<=	equal or less than	number/string	bool
	==	equal	any	bool
	!=	not equal	any	bool
	=~	match regular expression	string	bool
	!~	mismatch regular expression	string	bool
	in	contains element	any, array	bool
	&&	and	and	bool
	||	or	or	bool
??	coalescence	any	any	
Prefix Operators	-	negative	number	number
	~	bitwise not	number	number
	!	not	bool	bool

REST Custom Sensor: Functions

duration(start,end)

- Calculates the nanoseconds between start and end.
- Both parameters must be RFC3339 date time strings.

 Example

```
duration($.devices[0].firmware.date, "017-05-18T17:11:43.7049944Z")
```

now()

- Returns the current date time in RFC3339.

 Example

```
duration($.devices[0].firmware.date, now())
```

number(string, [base])

- Converts a string to a floating point number.
- If the base is not set, it is detected via the prefix of the string.
 - "0": base = 8
 - "0X": base = 16
 - otherwise: base = 10
 - Decimals are only supported at base 10.

 Examples

```
number("10.5")
number("a", 16)
```

len(object/array/string)

- Returns the length of an array or string and counts the number of properties in a JSON object.

 Example

```
len($.(number(@)))
```

This expression counts every number or string that can be converted into a number. It returns 13 in the example above.

sum(array-/object-of-numbers)

- Returns the sum of an array of numbers.

 Example

```
sum([1,2,3])
```

This expression returns 6.

mean(array-/object-of-numbers)

- Returns the average value of an array of numbers.

 Example

REST Custom Sensor: Functions

```
mean([1,2,3])
```

This expression returns 2.

lookup(string, string,
string, ...)

- Returns the index of the specified string in a string list, or -1 if the string is not found.

 Example

```
lookup($.device[0].firmware.channel, "stable", "beta",  
"alpha")
```

This expression returns 1 because \$.device[0].firmware.channel resolves to beta.

implode(array-/object-of-
string, string)

- Returns the concatenation of each string in the array, separated by the specified string.

 Example

```
implode($.tx_bytes, ",")
```

This expression returns 7229493,7229472.

Generic Channels

You can create a template in your REST configuration that defines generic channels. Generic channels are created based on the data that the REST endpoint returns. When the returned value is an array or object, the sensor creates a channel for each element and concatenates the corresponding key to the channel name.

 Example

Imagine that you want to have a total byte channel for each network card that is defined in the JSON example above. You can do this by creating a dynamic channel like in the following example.

```
{
  "prtg": {
    "result": [
      {
        "value": {
          "Total bytes on device" + #0 + " in network " + #1: $.devices.*.networks[*]
          (@.rx_bytes + @.tx_bytes)
        },
        "CustomUnit": "Bytes"
      }
    ]
  }
}
```

i Every channel must have a unique name. You cannot remove channels once they have been added and they keep their last received value. You can add new channels.

XML Sources

If the REST source returns XML instead of JSON, the sensor transforms the XML result to JSON before replacing the value paths with source values. Because of this, you do not know the structure of the source JSON to correctly provide the paths.

In this case, manually execute the sensor executable rest.exe from the \Sensor System subfolder of the [PRTG program directory](#) on the probe system. Execute rest.exe with the address of the XML endpoint and the parameter passthrough. The rest executable returns the converted XML to a JSON result that you can use to define the desired paths.

```
rest.exe <xml-endpoint-url> passthrough
```

Usage and Debugging

To create a suitable REST configuration for the sensor, you might want to check the returned JSON or XML and see what happens when your mapping rules apply.

The REST Custom sensor is an EXE sensor, so you can test and debug your configuration by executing rest.exe with several parameters. The rest.exe file is located in the \Sensor System subfolder of the PRTG program directory.

The command syntax is as follows:

```
rest.exe url template|passthrough|channelDiscovery [flags]
```

rest.exe: Parameters

- url
 - Address of the REST API endpoint that returns JSON or XML
- template
 - Fully qualified path and file name of your REST configuration file used to map the JSON result to the sensor

rest.exe: Parameters

- | | |
|------------------|---|
| passthrough | <ul style="list-style-type: none">▪ No mapping, only returning the queried JSON or XML▪ Useful to analyze XML that has been converted to JSON |
| channelDiscovery | <ul style="list-style-type: none">▪ Creates a channel for every number or boolean in the returned JSON or XML▪ If possible, it converts string values to number or boolean values. |

rest.exe: Flags

- | | |
|-------------------------|---|
| -authtoken <string> | <ul style="list-style-type: none">▪ JWT or OAuth2 Bearer Token to send with the request in authorization header as Bearer |
| -authusername <string> | <ul style="list-style-type: none">▪ User name for basic authentication |
| -authuserpwd <string> | <ul style="list-style-type: none">▪ User password for basic authentication |
| -post <string> | <ul style="list-style-type: none">▪ {1\|0}▪ Default: 0▪ 0 results in a GET request.▪ 1 results in a POST request. |
| -proxy <string> | <ul style="list-style-type: none">▪ Proxy server connection |
| -proxyusername <string> | <ul style="list-style-type: none">▪ Proxy user name with basic authentication |
| -proxyuserpwd <string> | <ul style="list-style-type: none">▪ Proxy user password with basic authentication |
| -tlsignore <string> | <ul style="list-style-type: none">▪ {1\|0}▪ Default: 0▪ 1 accepts self-signed certificates on HTTPS connections |
| -customheaders <string> | <ul style="list-style-type: none">▪ key1:val1\|key2:val2\|... |
| -template | <ul style="list-style-type: none">▪ Returns the discovered template if you use channelDiscovery. |
| -timeout <integer> | <ul style="list-style-type: none">▪ Sensor timeout in seconds▪ Default: 10 |

Channel List

- Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Response Time	The response time in milliseconds (msec) <ul style="list-style-type: none"> This channel is the primary channel by default.
[Value]	The values that a REST API returns in several channels <ul style="list-style-type: none"> For details about the return value format, see section Custom Sensors.

More

PRTG MANUAL

- [Data Storage](#)

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Can I create a sensor to monitor the number of paused or unknown sensors?

- <https://kb.paessler.com/en/topic/2653>

MISCELLANEOUS

Paessler JSONPath

- <https://github.com/PaesslerAG/jsonpath>

Paessler Gval





- <https://github.com/PaesslerAG/gval>

JSONPath Online Evaluator

- <https://jsonpath.com/>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

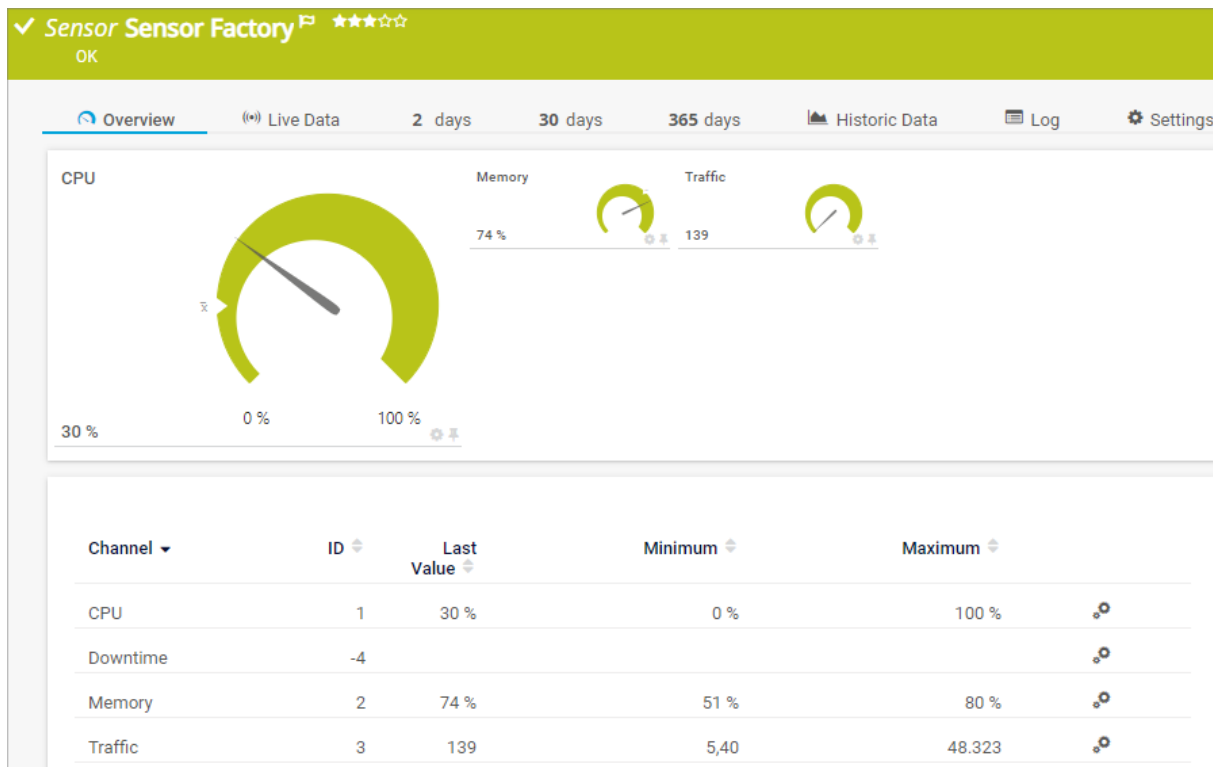
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.130 Sensor Factory Sensor

The Sensor Factory sensor monitors entire business processes that involve several components. You can create a customized sensor with channels based on data from other sensors ("source sensors").

i If you want to create only a cumulated sensor status based on specific source sensors, we recommend that you use the [Business Process sensor](#) instead.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Sensor Factory Sensor

Sensor in Other Languages

- Dutch: Sensor Fabriek
- French: Capteur combiné
- German: Formelsensor
- Japanese: センサーファクトリ
- Portuguese: Sensor de fórmula
- Russian:
- Simplified Chinese: 传感器出厂
- Spanish: Sensor Factory

Remarks

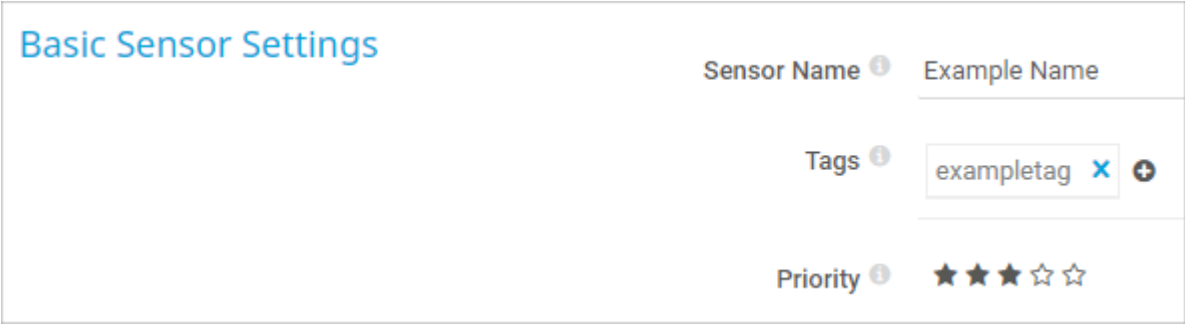
- This sensor can have a very high impact on the performance of the PRTG core server system. We recommend that you use no more than 50 Sensor Factory sensors per PRTG core server.
- Make sure that the [scanning interval](#) [2183] of this sensor is equal to or greater than the scanning interval of the source sensors to avoid incorrect sensor behavior. For example, "no data" messages or erratic changes of the sensor status can be a result of an invalid scanning interval.
- This sensor does not officially support more than 50 channels. Depending on the data used with this sensor, you might exceed the maximum number of supported channels. In this case, PRTG tries to display all channels. Be aware, however, that you experience limited usability and performance.
- The Sensor Factory sensor might not work with [xFlow sensors](#) [4305]. Sensors that use [active flow timeout](#), for example [NetFlow and jFlow sensors](#) [4600], are not supported by the Sensor Factory sensor.
- Uptime or downtime data for this sensor is not available in [reports](#) [208].
- See the Knowledge Base: [How can I monitor the overall status of the business process "email"?](#)

Add Sensor

The [Add Sensor](#) [361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.



Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree [183], as well as in alarms [228], logs [237], notifications [4031], reports [4069], maps [4085], libraries [4047], and tickets [240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited. ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ factorysensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

Sensor Factory Specific Settings

Sensor Factory Specific Settings

Channel Definition ⓘ #1:CPU Channel(128630,0)
#2:Memory

Status Handling ⓘ Show down status when one or more source sensors are in down status
 Show warning status when one or more source sensors are in down status
 Use custom formula

If a Source Sensor Has No Data ⓘ Do not calculate the channels that use the sensor
 Calculate the channels and use zero as source value

Sensor Factory Specific Settings


Setting	Description
Channel Definition	Enter a channel definition for the Sensor Factory sensor. Using a specific syntax, you can refer to data from channels of other sensors. You can also calculate values. Enter one channel definition for each new channel that you want to add to the Sensor Factory sensor.


Setting	Description
Status Handling	<p>■ For more information, see section Define Channels ²¹⁸⁷.</p> <p>Define the behavior of the Sensor Factory sensor if one of the source sensors is in the Down status ¹⁹⁷. In this case, you can set the Sensor Factory sensor either to the Down status or to the Warning status. Choose from:</p> <ul style="list-style-type: none"> <li>■ Show down status when one or more source sensors are in down status: If at least one source sensor that you use in a channel definition is in the Down status, the Sensor Factory sensor shows the Down status as well until all referred sensors leave this status. While the Sensor Factory sensor is in the Down status, it still shows data of all available channels. <ul style="list-style-type: none"> <li>① If a lookup definition ⁴⁴⁸⁵ or an error limit ³⁹⁷⁶ triggers the Down status of the source sensor, the Sensor Factory does not show the Down status. This is because the Sensor Factory should only show this status if it cannot calculate values. <li>■ Show warning status when one or more source sensors are in down status: If at least one source sensor that you use in a channel definition is in the Down status, the Sensor Factory sensor shows the Warning status until all referred sensors leave the Down status. <ul style="list-style-type: none"> <li>① If a lookup definition or an error limit triggers the Down status of the source sensor, the Sensor Factory does not show the Warning status. This is because the Sensor Factory sensor should only show this status if it cannot calculate values. <li>■ Use custom formula: Define the status of the Sensor Factory sensor by adding a Status Definition below.
Status Definition	<p>This setting is only visible if you select Use custom formula above. Define when the sensor switches to the Down status. You can use the status() function in combination with Boolean operations. For advanced users, it is also possible to calculate a status value.</p> <p>■ For more information, see section Define Sensor Status ²¹⁹³.</p>
If a Source Sensor Has No Data	<p>Choose how this Sensor Factory sensor reacts if a source sensor referred to in the channel definition does not provide any data (for example, because it is set to the Paused status or does not exist):</p> <ul style="list-style-type: none"> <li>■ Do not calculate the channels that use the sensor: For defined channels that use one or more sensors that deliver no data, no data is shown. <li>■ Calculate the channels and use zero as source value: If a source sensor that you use in a channel definition does not deliver any data, zero values are filled in instead. The Sensor Factory sensor calculates the channel value and shows it using these zero values.

Setting	Description
	<p> If a sensor in the channel of a Sensor Factory sensor has no data, the Sensor Factory sensor always shows the Warning status, no matter which of the above options you select.</p>




Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type  Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None


Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays


Setting	Description
	<ul style="list-style-type: none"> ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency.


Setting	Description
	<ul style="list-style-type: none"> Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies [4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector [257] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Define Channels

The channels of a Sensor Factory sensor are controlled by the Channel Definition text field. Using a special syntax, you can refer to other sensors' channels, calculate values, and add horizontal lines. You can define Sensor Factory channels using data from any other sensor's channels on your PRTG core server.

Example

You see a definition of two Sensor Factory sensor channels. Both use the [channel\(\)](#) function that collects data from the channels of other sensors in your monitoring and displays them:

```
#1:Local Probe Health
channel(1001,0)
#2:Local Traffic Out[kbit]
channel(1004,1)
```

The first channel of the Sensor Factory sensor (**#1**) collects data from the Health channel (ID 0) of the Probe Health sensor (ID 1001) running on the probe device. The second channel (**#2**) collects data from the Traffic out channel (ID 1) of a traffic sensor (ID 1004) measuring the system's local network card. Both channels are shown together in the Sensor Factory sensor's data tables and graphs.

The basic syntax for a Sensor Factory sensor channel definition looks like this:

```
#<id>:<name>[<unit>]
<formula>
```

For each channel, one section is used. A section begins with the number sign (#). Function names in formulas are not case sensitive.

The parameters are:

- `<id>` is the ID of the Sensor Factory sensor's channel. It must be a unique number that is greater than 0.
- `<name>` is the name of the Sensor Factory sensor's channel (displayed in graphs and tables).
- `[<unit>]` is an optional unit description for the Sensor Factory sensor's channel (for example, bytes). If you do not provide a unit, the Sensor Factory sensor automatically selects a suitable unit string (recommended).
- `<formula>` contains the formula to calculate the Sensor Factory sensor's channel. For the formula, you can use the following functions: `channel()`, `min()`, `max()`, `avg()`, or `percent()`.

Define Channels: Formula Calculations

Within a formula, the following elements are allowed to perform calculations with the values that are returned by one or more functions.

- Basic operations: + (add), - (subtract), * (multiply), / (divide)
Example: `3 + 5 * 2`
- Parentheses: ()
Example: `3 * (2 + 6)`
- Compare: = (equal), <> (not equal), > (greater), < (less), >= (greater or equal), <= (less or equal)
If the comparison resolves to true, the value is **10,000**. If false, the value is **0**. For delta sensors, the speed is compared.

Example

You see a Sensor Factory sensor channel definition with calculation.

```
#1:Traffic Total x Minus Traffic Out y
( channel(2001,-1) - channel(1004,1) ) * 2
```

This full channel definition results in a Sensor Factory sensor that shows a calculation with values from two channels (channel IDs **-1** and **1**) of two traffic sensors (sensor IDs **2001** and **1004**). The returned values are subtracted and then multiplied by two.

Channels can be gauge values (for example, ping **ms**) or delta values (for example, traffic **kbit/s**). Not all combinations are allowed in a formula.

- ⓘ When performing percentage calculation, use the `percent()` Function to make sure you obtain the expected values.

There are calculations you **cannot** do:

- You cannot add or subtract a delta from a gauge channel (and vice versa).
- You cannot multiply two delta channels.
- You cannot compare a delta with a gauge channel.

- You cannot use a channel of (another) Sensor Factory sensor channel in the formula.

Define Channels: channel() Function

The channel() function allows the Sensor Factory sensor to read the data from a channel of a source sensor. The syntax is:

```
channel(<sensorId>,<channelId>)
```

The parameters are:

- <sensorId> is the ID of the source sensor. It is displayed on the sensor's Overview tab.
- <channelId> is the ID of the channel of the source sensor. It is displayed in the respective field of the [channel settings](#) ³⁹⁷⁸.

Example

```
channel(2001,2)
```

This function reads the data from channel ID 2 of the source sensor with the ID 2001.

```
#1:Sample
channel(2001,2)
```

This full channel definition reads the data from channel ID 2 of the source sensor with the ID 2001 and displays it in the first Sensor Factory sensor channel (#1), without any additional calculations.

Define Channels: min() and max() Functions

The min() and max() functions return the minimum or maximum of two values. The syntax is:

```
min(<a>,<b>)
max(<a>,<b>)
```

Values for <a> and are either numbers or [channel\(\)](#) ²¹⁸⁹ functions.

Examples

```
min(10,5)
```

This function returns 5, because this is the smaller value out of 10 and 5.

```
min(channel(2001,1),channel(2002,1) )
```

This function returns the minimum of the values of channel 1 of the source sensor with ID 2001 and channel 1 of the source sensor with ID 2002.

Define Channels: avg() Function

The avg() function returns the average of the two values. This equals: $(a+b) / 2$. The syntax is:

```
avg (<a> , <b> )
```

Values for <a> and are either numbers or [channel\(\)](#) functions.

Examples

```
avg ( 20 , 10 )
```

This function returns **15**: $(20+10) / 2 = 15$.

```
avg ( channel ( 2001 , 1 ) , channel ( 2002 , 1 ) )
```


This function returns the average of channel **1** of the source sensor with ID **2001** and channel **1** of the source sensor with ID **2002**.

Define Channels: percent() Function

The percent() function calculates the percent value of two specified values, for example, a channel and a fixed value. The syntax is:

```
percent (<source> , <maximum> , <unit> )
```

The parameters are:

- <source> is the value the percent is calculated for. This is usually a [channel\(\)](#) function.
- <maximum> is the limit value used for the percent calculation.
- <unit> is an optional unit the maximum is provided in. You can use constants with this function (see [Constants](#) section below for a list). This can be used for absolute values (for example, [Ping sensors](#)) or calculated delta values (for example, traffic sensors). If no unit is provided, **1** is used.
 The sensor adds the unit string **%** automatically.

PRTG calculates: $\langle \text{source} \rangle / \langle \text{maximum} \rangle * \langle \text{unit} \rangle * 100$

 Examples

```
#1:Usage Traffic In
percent(channel(2001,0),100,kilobit)
#2:Usage Traffic Out
percent(channel(2001,1),100,kilobit)
```

This full channel definition results in a Sensor Factory sensor that shows two channels of a traffic sensor (sensor ID [2001](#)): Traffic in (channel ID [0](#)) and traffic out (channel ID [1](#)). The Sensor Factory sensor displays the values % of maximum bandwidth (100 kilobit/second).

```
#1:Ping %
percent(channel(2002,0),200)
```

This full channel definition results in a Sensor Factory sensor that shows the Ping Time channel (channel ID [0](#)) of a Ping sensor (sensor ID [2002](#)). The sensor displays the values as a percentage of 200 ms.

Define Channels: Horizontal Lines

You can add lines to the graph using a formula without the channel() function. Use a fixed value instead. The syntax is:

```
#<id>:<name>[<unit>]
<value>
```

The parameters are:

- `<id>` is the ID of the Sensor Factory sensor's channel and must be a unique number greater than 1. Although the Sensor Factory sensor does not show a horizontal line as a channel, the ID has to be unique.
- `<name>` is the name of the Sensor Factory sensor's channel. PRTG does not display this name in graphs and tables, but you can use it as a comment to describe the nature of the line.
- `[<unit>]` is an optional unit description (for example, [kbit/s](#)). If you do not provide a unit, PRTG automatically applies the line to the scale of the first Sensor Factory sensor's channel. If your Sensor Factory sensor uses different units, provide a unit to make sure the line is added for the right scale. Enter the unit exactly as shown in your graph's legend. If you enter a unit that does not yet exist in your graph, a new scale is added automatically.
- `<value>` contains a number defining where the line is shown in the graph.

 Examples

```
#5:Line at 100ms [ms]
100
```

This channel definition results in a graph that shows a horizontal line at the value of 100 on the ms scale.

```
#6:Line at 2 Mbit/s [kbit/s]
2000
```

This channel definition results in a graph that shows a horizontal line at the value of 2000 on the kbit/s scale.

```
#1:Ping Time
channel(2002,0)
#2:Line at 120ms [ms]
120
```

This full channel definition results in a Sensor Factory sensor that shows the Ping Time channel (channel ID 0) of a Ping sensor (sensor ID 2002). Additionally, the sensor graphs show a horizontal line at 120 ms.

Define Channels: Constants

The following constants are defined and can be used in calculations:

- one = 1
- kilo = 1000
- mega = 1000 * kilo
- giga = 1000 * mega
- tera = 1000 * giga
- byte = 1
- kilobyte = 1024
- megabyte = 1024 * kilobyte
- gigabyte = 1024 * megabyte
- terabyte = 1024 * gigabyte
- bit = 1/8
- kilobit = kilo / 8
- megabit = mega / 8
- gigabit = giga / 8
- terabit = tera / 8

Define Sensor Status: status() Function

You can control the status of a Sensor Factory sensor via the Status Definition text field if you enable the custom formula option in the [sensor settings](#)²¹⁷⁹. Using a special syntax, you can define when the Sensor Factory sensor changes to the Down status. In all other cases, the sensor is in the Up status. The syntax is:

```
status(sensorID) <boolean> status(sensorID)
```

The parameters are:

- <sensorid> is the ID of the source sensor that you want to check the status of. It is displayed on the sensor's Overview tab.
- <boolean> is one of the Boolean operators AND, OR, or NOT. If the resulting expression is **true**, the Sensor Factory sensor changes to the Down status.

Examples

```
status(2031) AND status(2044)
```

This changes the Sensor Factory sensor to the Down status if both source sensors, with IDs **2031** and **2044**, are in the Down status. Otherwise the Sensor Factory sensor shows the Up status.

```
status(2031) OR status(2044)
```

This changes the Sensor Factory sensor to the Down status if at least one of the source sensors with ID **2031** or ID **2044** is in the Down status. Otherwise the Sensor Factory sensor shows the Up status.

```
status(2031) AND NOT status(2044)
```

This changes the Sensor Factory sensor to the Down status if the source sensor with ID **2031** is in the Down status, but the source sensor with ID **2044** is **not** in the Down status. Otherwise the Sensor Factory sensor shows the Up status.

i A status() function with NOT has to be connected with AND or OR if it is combined with other status() functions:

```
status(sensorID) AND NOT status(sensorID)
```

```
status(sensorID) OR NOT status(sensorID)
```

```
( status(2031) AND status(2044) ) OR status(2051)
```

This changes the Sensor Factory sensor to the Down status if both the source sensor with ID **2031** and the source sensor with ID **2044** are in the Down status, or if the source sensor with ID **2051** is in the Down status. Otherwise the Sensor Factory sensor shows the Up status.

Additionally, the following elements are allowed to perform calculations and comparisons with the values that are returned by the status functions:

- Basic operations: + (add), - (subtract), * (multiply), / (divide)
Example: **3 + 5 * 2**

- Parentheses: ()
Example: $3 * (2 + 6)$
- Compare: = (equal), <> (not equal), > (greater), < (less), >= (greater or equal), <= (less or equal)
If the comparison resolves to true, the value is 10,000. If false, the value is 0. For delta sensors, the speed is compared.

Internally, the status() function returns the downtime channel of the source sensor in hundreds of percent (10,000 = 100%).

- true corresponds to a value of 10,000, which is the Down status.
- false corresponds to a value of 0, which is the Up status.

If you understand this, you can use more complex formulas.

Example

```
( status(1031) + status(1032) + status(1033) + status(1034) ) >= 20000
```

This changes the Sensor Factory sensor to the Down status if at least any two of the source sensors with IDs 1031, 1032, 1033, or 1034 are in the Downstatus. Otherwise the Sensor Factory sensor shows the Up status.

i You can also use the status() function in [channel definitions](#)^[2187]. Using this functionality, it is possible, for example, to display the numeric status value of source sensors in a Sensor Factory sensor channel.

Using Sensor Factory Sensors in a Cluster

If you run PRTG in a [cluster](#)^[135], note the following:

- If you add a Sensor Factory sensor underneath the [cluster probe](#), and in the Sensor Factory formula you refer to a channel of a source sensor running on the cluster probe as well, the Sensor Factory sensor shows the data of all cluster nodes for this channel.
- If you add a Sensor Factory sensor underneath the [local probe](#), and in the Sensor Factory formula you refer to a channel of a sensor running on the cluster probe, the Sensor Factory sensor only shows data of the primary master node for this channel.

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
[Custom]	The monitoring results from other sensors or devices. Samples for usage are: <ul style="list-style-type: none"> ▪ Show single channels of one or more sensors in one graph.

Channel	Description
	<ul style="list-style-type: none"> Use the data from single channels of one or more sensors to calculate new values (for example, you can subtract, multiply, and divide). Create graphs with data from other sensors' channels and add horizontal lines at specific vertical positions.
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p> <p>i The Sensor Factory sensor does not show values in the Downtime channel because they cannot be calculated for this sensor.</p>

More

■ KNOWLEDGE BASE

How can I monitor the overall status of the business process "email"?

- <https://kb.paessler.com/en/topic/60737>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Can you help me understand when the Sensor Factory sensor changes to a down status and why?

- <https://kb.paessler.com/en/topic/79458>

What can I do with the Sensor Factory sensors of PRTG?

- <https://kb.paessler.com/en/topic/583>





▶ VIDEO TUTORIAL

Sensor Factory sensor

- <https://www.paessler.com/learn/videos/factory-sensor>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4591
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.131 sFlow Sensor

The sFlow sensor receives traffic data from an sFlow v5-compatible device and shows the traffic by type. This sensor has several filter options to divide traffic into different channels.

- i The sensor analyzes only header traffic.
- i Make sure that the target device supports sFlow v5.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).

✓ **Sensor sFlow** ★★★★★
OK

Overview
Live Data
2 days
30 days
365 days
Historic Data
Log
Settings

Top Talkers

Top Connections

Top Protocols

[Add Toplist](#)

Total

14 Mbit/s

Chat	0 Mbit/s	Citrix	0 Mbit/s	FTP/P2P	0.02 Mbit/s
Infrastructure	0.93 Mbit/s	Mail	0.10 Mbit/s	NetBIOS	< 0.01 Mbit/s
Other	0 Mbit/s	Remote Control	0 Mbit/s	Various	8.10 Mbit/s

www

5.15 Mbit/s

Channel	ID	Last Value (volume)	Last Value (speed)	Minimum	Maximum
Chat	3004	0 MByte	0 Mbit/s	0 Mbit/s	0.54 Mbit/s
Citrix	3010	0 MByte	0 Mbit/s	0 Mbit/s	< 0.01 Mbit/s
Downtime	-4				
FTP/P2P	3002	0.61 MB...	0.02 Mbi...	0 Mbit/s	0.49 Mbit/s
Infrastructure	3007	33 MByte	0.93 Mbi...	0 Mbit/s	3.32 Mbit/s


sFlow Sensor

Sensor in Other Languages

- Dutch: sFlow
- French: sFlow
- German: sFlow
- Japanese: sFlow
- Portuguese: sFlow
- Russian: sFlow
- Simplified Chinese: sFlow
- Spanish: sFlow

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- You must enable sFlow v5 export on the monitored device for this sensor to work. The device must send the flow data stream to the IP address of the probe system with this sensor (either a local probe or a remote probe).
- This sensor accepts RAW data only. The stream must be sent via IPv4.
- For cloning this sensor, the following rules apply. If you add the clone to the **same** probe, PRTG keeps the selected IP addresses on which it listens for xFlow (NetFlow, jFlow, sFlow, IPFIX) packets. If you add the clone to a **different** probe, PRTG selects **all** available IP addresses by default. You can change the selected IP addresses in the sensor settings.
- This sensor has several [limitations](#) ²¹⁹⁷.
- You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
- See the Knowledge Base: [How can I change the default groups and channels for xFlow and Packet Sniffer sensors?](#)
- See the Knowledge Base: [Where is the volume line in graphs?](#)
- See the Paessler tools: [Paessler sFlow Tester](#)

 You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Limitations

There are some limitations that you should consider before you use this sensor:

- The sensor only supports sFlow v5 datagrams.
- The sensor only supports IPv4 flows.
- The sensor only supports the "raw packet header" format.
- The sensor only supports the "Flow sample" and "Extended flow" formats. It cannot process "Counter" formats.

- The sensor only processes samples where the source ID matches the ifIndex of the input interface (avoiding double-counted traffic) and ascending sequence numbers.
- The sensor only supports sample packets of the Ethernet type "IP" (with optional VLAN tag)
- The sensor only supports sampled packets of the types TCP and UDP.

✂ We recommend that you use [sFlow Tester](#) for debugging.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a 'Basic Sensor Settings' dialog box. It has three main sections: 'Sensor Name' with an information icon and the text 'Example Name'; 'Tags' with an information icon and a text input field containing 'exampletag' and a plus sign; and 'Priority' with an information icon and five star icons, the last one being filled.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree , as well as in alarms , logs , notifications , reports , maps , libraries , and tickets . ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited .

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ bandwidthsensor ▪ sflowsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

sFlow v5 Specific Settings

sFlow v5 Specific Settings

Receive sFlow Packets on UDP Port 6343

Sender IP Address

Receive sFlow Packets on IP Address

Probe's Local IP Addresses

192.0.2.0

Stream Data Handling




Discard stream data (recommended)

Store stream data only for the 'Other' channel

Store all stream data


sFlow v5 Specific Settings

Setting	Description
Receive sFlow Packets on UDP Port	Enter the UDP port number on which the flow packets are received. It must match the UDP port number in the sFlow export options of the hardware router device. The default value is 6343. Enter an integer value.
Sender IP Address	Enter the IP address of the sending device that you want to receive the sFlow from. Enter an IP address to only receive data from a specific device or leave the field empty to receive data from any device on the specified port.

Setting	Description
Receive sFlow Packets on IP Address	<p>Select the IP addresses on which PRTG listens to sFlow packets. The list of IP addresses is specific to your setup. To select an IP address, add a check mark in front of the respective line. The IP address that you select must match the IP address in the sFlow export options of the hardware router device.</p> <ul style="list-style-type: none">  When you configure the export, make sure that you select the appropriate sFlow v5 for this sensor  You can also select all items or cancel the selection by using the check box in the table header.
Stream Data Handling	<p>Define what PRTG does with the stream and packet data:</p> <ul style="list-style-type: none"> ▪ Discard stream data (recommended): Do not store the stream and packet data. ▪ Store stream data only for the 'Other' channel: Only store stream and packet data that is not otherwise filtered and is therefore accounted to the default Other channel. PRTG stores this data in the \StreamLog subfolder of the PRTG data directory on the probe system. The file name is Streams Sensor [ID] (1).csv. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. ▪ Store all stream data: Store all stream and packet data. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <ul style="list-style-type: none">  Use with caution. If you enable this setting, it can create huge data files. We recommend that you only use this setting for a short time.

Channel Configuration

Channel Configuration

Channel Selection 


Group	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Content
Web	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	WWW Traffic: HTTP, HTTPS
File Transfer	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	File Transfer: FTP (Control)
Mail	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Mail Traffic: IMAP, POP3, SMTP
Chat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Chat, Instant Messaging: IRC, AIM
Remote Control	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Remote Control: RDP, SSH, Telnet, VNC
Infrastructure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Network Services: DHCP, DNS, Ident, ICMP, SNMP
NetBIOS	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NetBIOS: NETBIOS
Citrix	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Citrix: Citrix
Other Protocols	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Various: Other UDP, Other TCP

Note You can change the default settings for the selected channels. This way, you do not have to customize this setting each time that you add this sensor type to PRTG. For details, see [this article](#) in the Knowledge Base.

Channel Configuration

Setting	Description
Channel Selection	<p>Define the categories that the sensor accounts the traffic to:</p> <ul style="list-style-type: none"> ▪ Web: Internet web traffic. ▪ File Transfer: Traffic from FTP. ▪ Mail: Internet mail traffic. ▪ Chat: Traffic from chat and instant messaging. ▪ Remote Control: Traffic from remote control applications such as RDP, SSH, Telnet, and VNC. ▪ Infrastructure: Traffic from network services such as DHCP, DNS, Ident, ICMP, and SNMP. ▪ NetBIOS: Traffic from NetBIOS communication. ▪ Citrix: Traffic from Citrix applications. ▪ Other Protocols: Traffic from various other protocols via UDP and TCP. <p>For each group, you can select how many channels the sensor uses, that is, how detailed the sensor divides the traffic. For each group, choose from:</p> <ul style="list-style-type: none"> ▪ No (✘): Do not account traffic of this group in its own channel. The sensor accounts all traffic of this group to the default channel named Other. ▪ Yes (✔): Count all traffic of this group and summarize it in one channel. ▪ Detail (🔍): Count all traffic of this group and further divide it into different channels. The traffic appears in several channels that you can see in the Content column. <ul style="list-style-type: none"> ⓘ Extensive use of this option can cause load problems on the probe system. We recommend that you set specific, well-chosen filters for the data that you really want to analyze. <p>■ You can change the default configuration for groups and channels. For details, see the Knowledge Base: How can I change the default groups and channels for xFlow and Packet Sniffer sensors?</p>

Filtering

■ For detailed information, see section [Filter Rules](#) .

Filtering

Filters To include and exclude specific traffic, you can define filter rules based on the following format guidelines:


- field[filter]


Fields:

IP, Port, SourceIP, SourcePort, DestinationIP, DestinationPort, Protocol (values TCP, UDP, ICMP, OSPFIGP or any number), ToS, DSCP

Additional IPFIX fields:

Interface, ASI, InboundInterface, OutboundInterface, SourceASI, DestinationASI, MAC, SourceMAC, DestinationMAC, Mask, SourceMask, DestinationMask ('Masks' represent subnet masks in the form of a single number ('number of contiguous bits')), NextHop (IP Address), VLAN, SourceVLAN, DestinationVLAN ('VLANs' represent a VLAN identifier)

Include Filter 


Exclude Filter 


Filtering

Setting	Description
Include Filter	Define if you want to filter any traffic. If you leave this field empty, the sensor includes all traffic. To include specific traffic only, define filters using a special syntax.
Exclude Filter	First, the sensor considers the filters in Include Filter. From this subset, you can explicitly exclude traffic, using the same syntax.



Sensor Display


Sensor Display

Primary Channel  Downtime

Graph Type  Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.  You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Primary Toplist


Primary Toplist

Primary Toplist 
Top Connections

Primary Toplist

Setting	Description
Primary Toplist	<p>Define which Toplist is the primary Toplist of the sensor:</p> <ul style="list-style-type: none"> Top Talkers Top Connections Top Protocols [Any custom Toplists you add] <p> PRTG shows the primary Toplist in maps when you add a Toplist object.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited



Access Rights

Setting	Description
User Group Access	<p>Define the user groups ¹⁴² that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².


Channel Unit Configuration

 inherit from  Root

Channel Unit Types ¹

Channel Type	Unit
Bytes (Bandwidth)	MB ▼
	Mbit ▼
	/
	second ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Toplists

For all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors, Toplists are available on the sensor's Overview tab. Using Toplists, you can review traffic data for small time periods in great detail.

 For more information, see section [Toplists](#) .

Filter Rules

The following filter rules apply to all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors.

 For more information, see section [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#) .

Field	Possible Filter Values
IP	IP address or Domain Name System (DNS) name
Port	Any number
SourceIP	IP address or Domain Name System (DNS) name
SourcePort	Any number
DestinationIP	IP address or Domain Name System (DNS) name
DestinationPort	Any number

Field	Possible Filter Values
Protocol	Transmission Control Protocol (TCP), User Datagram Protocol (UDP), Internet Control Message Protocol (ICMP), Open Shortest Path First (OSPF), any number
ToS	Type of Service (ToS): any number
DSCP	Differentiated Services Code Point (DSCP): any number


The following filter rules apply to sFlow sensors only.

Field	Possible Filter Values
Interface	Any number
InboundInterface	Any number
OutboundInterface	Any number
SenderIP	IP address of the sending device. Use this if you have several devices that send flow data on the same port, and you want to divide the traffic of each device into a different channel. Possible values: IP address or DNS name
MAC	Physical address
SourceMAC	Physical address
DestinationMAC	Physical address

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Chat	The traffic from chat and instant messaging (Internet Relay Chat (IRC), AOL Instant Messenger (AIM)) in bytes per second
Citrix	The traffic from Citrix applications in bytes per second

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
FTP/P2P	The traffic from file transfer (File Transfer Protocol (FTP)/Peer-to-Peer (P2P)) in bytes per second
Infrastructure	The traffic from network services (Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS), Ident, Internet Control Message Protocol (ICMP), Simple Network Management Protocol (SNMP)) in bytes per second
Mail	The internet mail traffic (Internet Message Access Protocol (IMAP), Post Office Protocol version 3 (POP3), Simple Mail Transfer Protocol (SMTP)) in bytes per second
NetBIOS	The traffic from NetBIOS communication in bytes per second
Other	The traffic from various other protocols (User Datagram Protocol (UDP), Transmission Control Protocol (TCP)) in bytes per second
Remote Control	The traffic from remote control applications (Remote Desktop Protocol (RDP), Secure Shell (SSH), Telnet, Virtual Network Computing (VNC)) in bytes per second
Total	The total traffic in bytes per second  This channel is the primary channel by default.
Various	The traffic from various other sources in bytes per second
WWW	The traffic from the web (HTTP, HTTPS) in bytes per second

More

KNOWLEDGE BASE

How can I change the default groups and channels for xFlow and Packet Sniffer sensors?

- <https://kb.paessler.com/en/topic/60203>

Where is the volume line in graphs?

- <https://kb.paessler.com/en/topic/61272>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Part 7: Device and Sensor Setup | 8 Sensor Settings
131 sFlow Sensor





PAESSLER TOOLS

sFlow Tester

- <https://www.paessler.com/tools/sflowtester>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

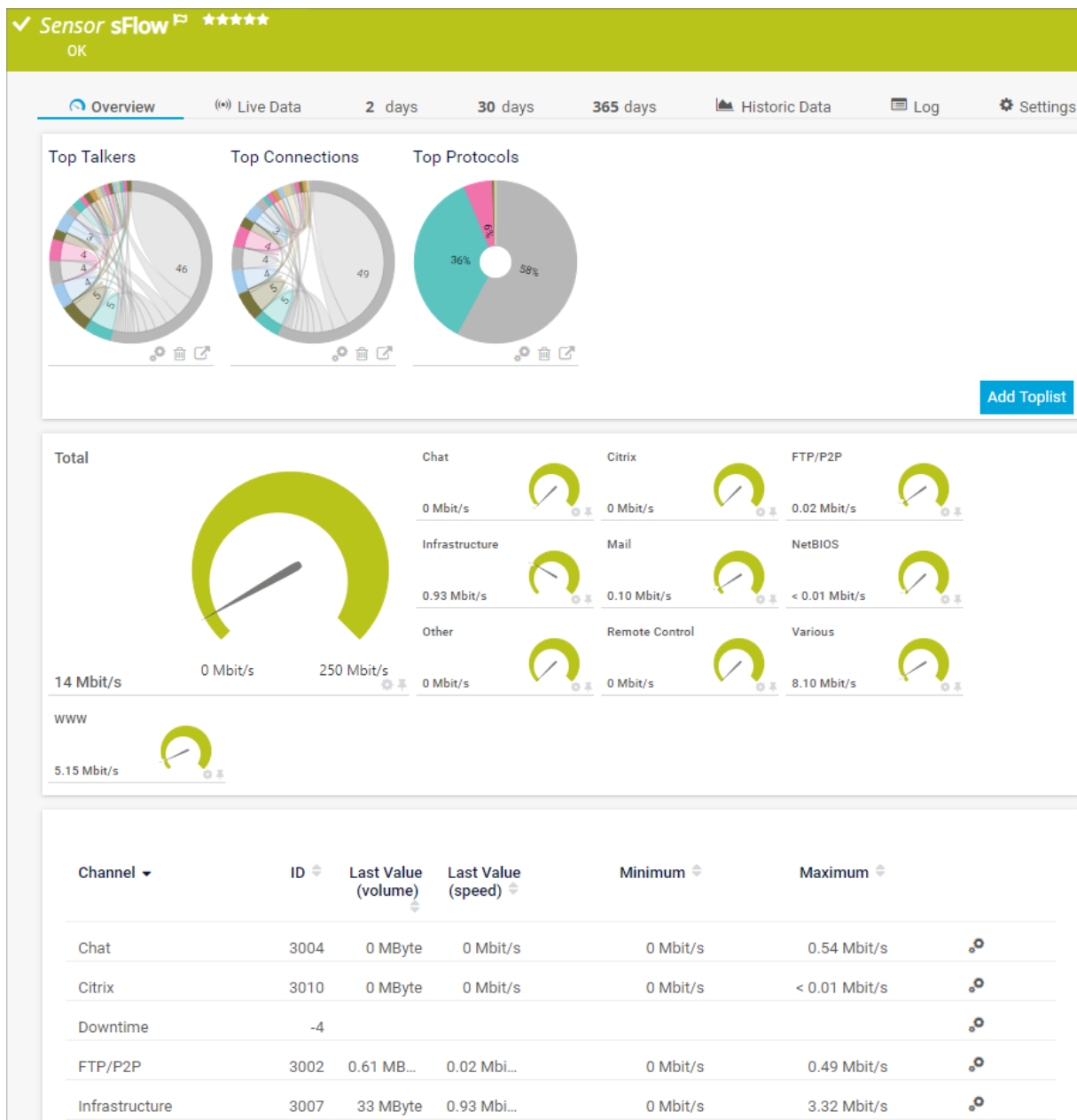
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.132 sFlow (Custom) Sensor

The sFlow (Custom) sensor receives traffic data from an sFlow v5-compatible device and shows the traffic by type. With this sensor, you can define your own channel definitions to divide traffic into different channels.

- i The sensor analyzes only header traffic.
- i Make sure that the target device supports sFlow v5.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).




sFlow (Custom) Sensor

Sensor in Other Languages

- Dutch: sFlow (Custom)
- French: sFlow (personnalisé)
- German: sFlow (Benutzerdef.)
- Japanese: sFlow(カスタム)
- Portuguese: sFlow (customizado)
- Russian: sFlow ()
- Simplified Chinese: sFlow (自定义)
- Spanish: sFlow (Personalizado)

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- You must enable sFlow v5 export on the monitored device for this sensor to work. The device must send the flow data stream to the IP address of the probe system with this sensor (either a local probe or a remote probe).
- This sensor does not officially support more than 50 channels. Depending on the data used with this sensor, you might exceed the maximum number of supported channels. In this case, PRTG tries to display all channels. Be aware, however, that you experience limited usability and performance.
- This sensor has several [limitations](#) ²²¹⁴.
- This sensor accepts RAW data.
- You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
- See the Knowledge Base: [Where is the volume line in graphs?](#)
- See the Paessler tools: [Paessler sFlow Tester](#)

 You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Limitations

There are some limitations that you should consider before you use this sensor:

- The sensor only supports sFlow v5 datagrams.
- The sensor only supports IPv4 flows.
- The sensor only supports the "raw packet header" format.
- The sensor only supports the "Flow sample" and "Extended flow" formats. It cannot process "Counter" formats.
- The sensor only processes samples where the source ID matches the ifIndex of the input interface (avoiding double-counted traffic) and ascending sequence numbers.
- The sensor only supports sample packets of the Ethernet type "IP" (with optional VLAN tag)

- The sensor only supports sampled packets of the types TCP and UDP.

✂ We recommend that you use [sFlow Tester](#) for debugging.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ bandwidthsensor ▪ sflowsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

sFlow v5 Specific Settings

sFlow v5 Specific Settings

Receive sFlow Packets on UDP Port

Sender IP Address

Receive sFlows Packets on IP Address Probe's Local IP Addresses






192.0.2.0

Channel Definition

Stream Data Handling Discard stream data (recommended)
 Store stream data only for the 'Other' channel
 Store all stream data

sFlow v5 Specific Settings

Setting	Description
Receive sFlow Packets on UDP Port	<p>Enter the UDP port number on which the flow packets are received. It must match the UDP port number in the sFlow export options of the hardware router device. The default value is 6343. Enter an integer value.</p> <p>i When you configure the export, make sure that you select the appropriate sFlow v5 for this sensor</p>

Setting	Description
Sender IP Address	<p>Enter the IP address of the sending device that you want to receive the sFlow from. Enter an IP address to only receive data from a specific device or leave the field empty to receive data from any device on the specified port.</p>
Receive sFlow Packets on IP Address	<p>Select the IP addresses on which PRTG listens to sFlow packets. The list of IP addresses is specific to your setup. To select an IP address, add a check mark in front of the respective line. The IP address that you select must match the IP address in the sFlow export options of the hardware router device.</p> <ul style="list-style-type: none">  When you configure the export, make sure that you select the appropriate sFlow v5 for this sensor  You can also select all items or cancel the selection by using the check box in the table header.
Channel Definition	<p>Enter a channel definition to divide the traffic into different channels. Enter each definition in one line. The sensor accounts all traffic that you do not define a channel for to the default channel Other.</p> <p> For detailed information, see section Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors.</p> <ul style="list-style-type: none">  Extensive use of many filters can cause load problems on the probe system. We recommend that you define specific, well-chosen filters for the data that you really want to analyze. We recommend that you do not use more than 20 channels in graphs and tables, and not more than 100 channels in total. For performance reasons, we recommend that you add several sensors with fewer channels each.
Stream Data Handling	<p>Define what PRTG does with the stream and packet data:</p> <ul style="list-style-type: none"> ▪ Discard stream data (recommended): Do not store the stream and packet data. ▪ Store stream data only for the 'Other' channel: Only store stream and packet data that is not otherwise filtered and is therefore accounted to the default Other channel. PRTG stores this data in the \StreamLog subfolder of the PRTG data directory on the probe system. The file name is Streams Sensor [ID] (1).csv. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. ▪ Store all stream data: Store all stream and packet data. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <ul style="list-style-type: none">  Use with caution. If you enable this setting, it can create huge data files. We recommend that you only use this setting for a short time.

Filtering

For detailed information, see section [Filter Rules](#) ²²²⁵.

Filtering

Filters To include and exclude specific traffic, you can define filter rules based on the following format guidelines:

- field[filter]

Fields:

IP, Port, SourceIP, SourcePort, DestinationIP, DestinationPort, Protocol (values TCP, UDP, ICMP, OSPFIGP or any number), ToS, DSCP

Additional IPFIX fields:

Interface, ASI, InboundInterface, OutboundInterface, SourceASI, DestinationASI, MAC, SourceMAC, DestinationMAC, Mask, SourceMask, DestinationMask ('Masks' represent subnet masks in the form of a single number ('number of contiguous bits')), NextHop (IP Address), VLAN, SourceVLAN, DestinationVLAN ('VLANs' represent a VLAN identifier)

Include Filter [?]

Exclude Filter [?]

Filtering

Setting	Description
Include Filter	Define if you want to filter any traffic. If you leave this field empty, the sensor includes all traffic. To include specific traffic only, define filters using a special syntax.
Exclude Filter	First, the sensor considers the filters in Include Filter. From this subset, you can explicitly exclude traffic, using the same syntax.

Sensor Display




Sensor Display

Primary Channel [?] Downtime

Graph Type [?] Show channels independently (default)
 Stack channels on top of each other

Sensor Display


Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.

Setting	Description
	<p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[387]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Primary Toplist

Primary Toplist Primary Toplist  Top Connections

Primary Toplist

Setting	Description
Primary Toplist	<p>Define which Toplist is the primary Toplist of the sensor:</p> <ul style="list-style-type: none"> ▪ Top Talkers ▪ Top Connections ▪ Top Protocols ▪ [Any custom Toplists you add] <p> PRTG shows the primary Toplist in maps when you add a Toplist object.</p>



Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[368] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
 inherit from  Root	Scanning Interval ⓘ 60 seconds
	If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None


Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays


Setting	Description
	<ul style="list-style-type: none"> ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency.


Setting	Description
	<ul style="list-style-type: none"> Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies [4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector [257] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited



Access Rights

Setting	Description
User Group Access	<p>Define the user groups ¹⁴² that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².


Channel Unit Configuration

 inherit from  Root

Channel Unit Types ¹


Channel Type	Unit
Bytes (Bandwidth)	MB ▼
	Mbit ▼
	/ ▼
	second ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Toplists

For all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors, Toplists are available on the sensor's Overview tab. Using Toplists, you can review traffic data for small time periods in great detail.

 For more information, see section [Toplists](#)⁴⁰⁰².

Filter Rules

The following filter rules apply to all xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors.

Field	Possible Filter Values
IP	IP address or Domain Name System (DNS) name
Port	Any number
SourceIP	IP address or Domain Name System (DNS) name
SourcePort	Any number
DestinationIP	IP address or Domain Name System (DNS) name
DestinationPort	Any number
Protocol	Transmission Control Protocol (TCP) , User Datagram Protocol (UDP) , Internet Control Message Protocol (ICMP) , Open Shortest Path First (OSPF) , any number

Field	Possible Filter Values
ToS	Type of Service (ToS): any number
DSCP	Differentiated Services Code Point (DSCP): any number


The following filter rules apply to sFlow sensors only.

Field	Possible Filter Values
Interface	Any number
InboundInterface	Any number
OutboundInterface	Any number
SenderIP	IP address of the sending device. Use this if you have several devices that send flow data on the same port, and you want to divide the traffic of each device into a different channel. Possible values: IP address or DNS name
MAC	Physical address
SourceMAC	Physical address
DestinationMAC	Physical address

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
[Custom]	The traffic by type according to the channel definition
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Other	All traffic for which no channel is defined in bytes per second

Channel	Description
Total	The total traffic in bytes per second  This channel is the primary channel by default.

More

KNOWLEDGE BASE

Where is the volume line in graphs?

- <https://kb.paessler.com/en/topic/61272>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>





PAESSLER TOOLS

sFlow Tester

- <https://www.paessler.com/tools/sflowtester>

Sensor Settings Overview

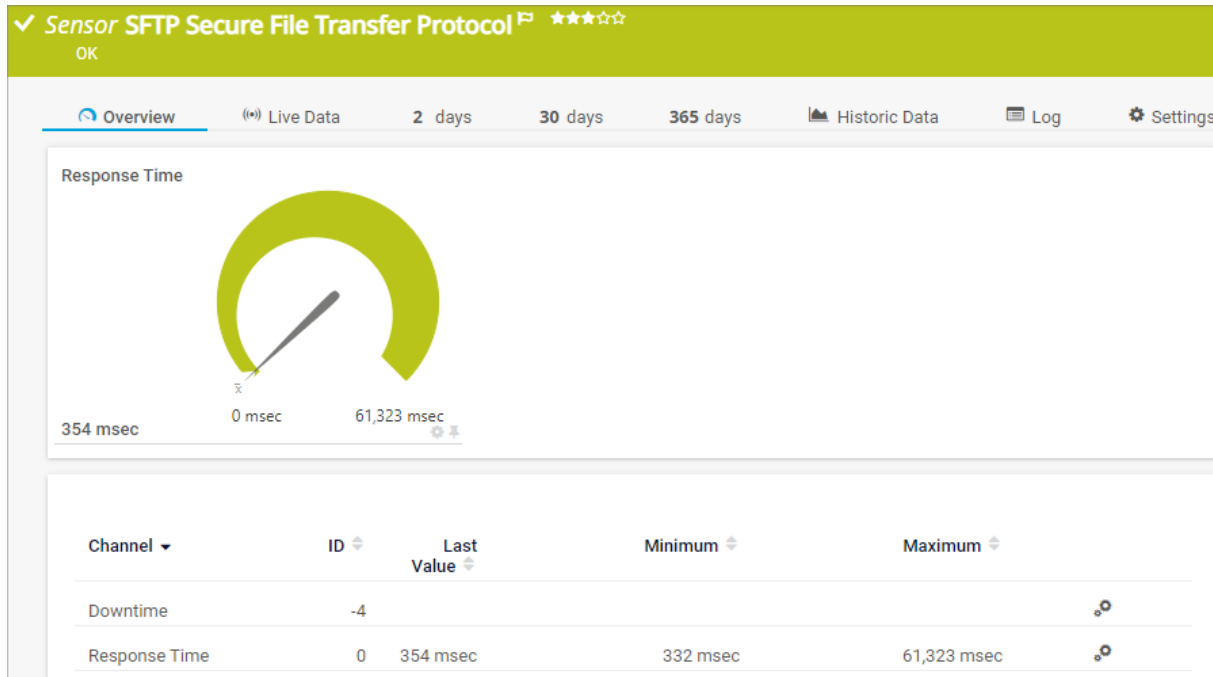
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.133 SFTP Secure File Transfer Protocol Sensor

The SFTP Secure File Transfer Protocol sensor monitors File Transfer Protocol (FTP) servers of a Linux/Unix system via the Secure Shell (SSH) File Transfer Protocol (FTP over SSH).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SFTP Secure File Transfer Protocol Sensor

Sensor in Other Languages

- Dutch: SFTP Secure File Transfer Protocol
- French: Protocole sécurisé de transfert de fichiers SFTP (Secure File Transfer Protocol)
- German: SFTP Secure File Transfer Protocol
- Japanese: SFTP(Secure File Transfer Protocol)
- Portuguese: SFTP Secure File Transfer Protocol
- Russian: SFTP
- Simplified Chinese: SFTP 安全文件传输协议
- Spanish: SFTP Secure File Transfer Protocol

Remarks

- This sensor requires [credentials for Linux/Solaris/macOS \(SSH/WBEM\) systems](#) in the settings of the parent device.
- This sensor cannot support all Linux/Unix and macOS distributions.
- This sensor has a medium performance impact.
- See the Knowledge Base: [SSH and SFTP sensors in Unknown status](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> sftpsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SSH Specific

SSH Specific

Connection Timeout (Sec.) ⁱ 60

Shell Timeout (Sec.) ⁱ 10

SSH Port ⁱ Inherit port number from parent device (default)
 Enter custom port number



SSH Engine ⁱ Inherit from parent device (default)
 Default
 Compatibility Mode (deprecated)

Result Handling ⁱ Discard result
 Store result
 Store result in case of error

SSH Specific


Setting	Description
Connection Timeout (Sec.)	<p>Define a timeout in seconds for the connection. This is the time that the sensor waits to establish a connection to the host. Keep this value as low as possible. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i Ensure that the connection timeout is a value that is higher than the shell timeout to avoid potential errors.</p>
Shell Timeout (Sec.)	<p>Define a timeout in seconds for the shell response. This is the time in seconds the sensor waits for the shell to return a response after k has sent its specific command (for example, <code>cat /proc/loadavg</code>). The maximum value is 300 seconds (5 minutes). Enter an integer value.</p>


Setting	Description
	<p>i Ensure that the shell timeout is a value that is lower than the connection timeout to avoid potential errors.</p>
SSH Port	<p>Define which port this sensor uses for the SSH connection:</p> <ul style="list-style-type: none"> ▪ Inherit port number from parent device (default): Use the port number as defined in the Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems^[452] section of the parent device settings. ▪ Enter custom port number: Define a custom port number below and do not use the port number from the parent device settings.
Use Port Number	<p>This setting is only visible if you select Enter custom port number above. Enter the port number (between 1 and 65535) that this sensor uses for the SSH connection. Enter an integer value.</p>
SSH Engine	<p>Select the method that you want to use to access data with this SSH sensor^[430]. We strongly recommend that you use the default engine. You can still use the legacy mode for some time to ensure compatibility with your target systems. Choose between:</p> <ul style="list-style-type: none"> ▪ Inherit from parent device (default): Use the SSH engine that you defined in the parent device settings or higher up in the object hierarchy^[138]. If you have not changed the SSH engine, this is the recommended default engine. ▪ Default: This is the default monitoring method for SSH sensors. It provides the best performance and security. It is set by default in objects that are higher up in the hierarchy, so usually you can keep the Inherit from parent device (default) option. ▪ Compatibility mode (deprecated): Try this legacy method only if the default mode does not work on a target device. The compatibility mode is the SSH engine that PRTG used in previous versions. It is deprecated. We will remove this legacy mode soon, so try to get your SSH sensors running with the default SSH engine. <p>i The option you select here overrides the selection of the SSH engine in a higher object: a parent device, group, probe, or root.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[452] on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. ▪ Store result in case of error: Store the last sensor result only if the sensor shows the Down status.

Setting	Description
	<p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>




Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type  Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None


Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays


Setting	Description
	<ul style="list-style-type: none"> ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency.


Setting	Description
	<ul style="list-style-type: none"> Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies [4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector [251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 


Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Response Time	<p>The response time in milliseconds (msec)</p> <p> This channel is the primary channel by default.</p>

More

KNOWLEDGE BASE

SSH and SFTP sensors in Unknown status

- <https://kb.paessler.com/en/topic/79174>




What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

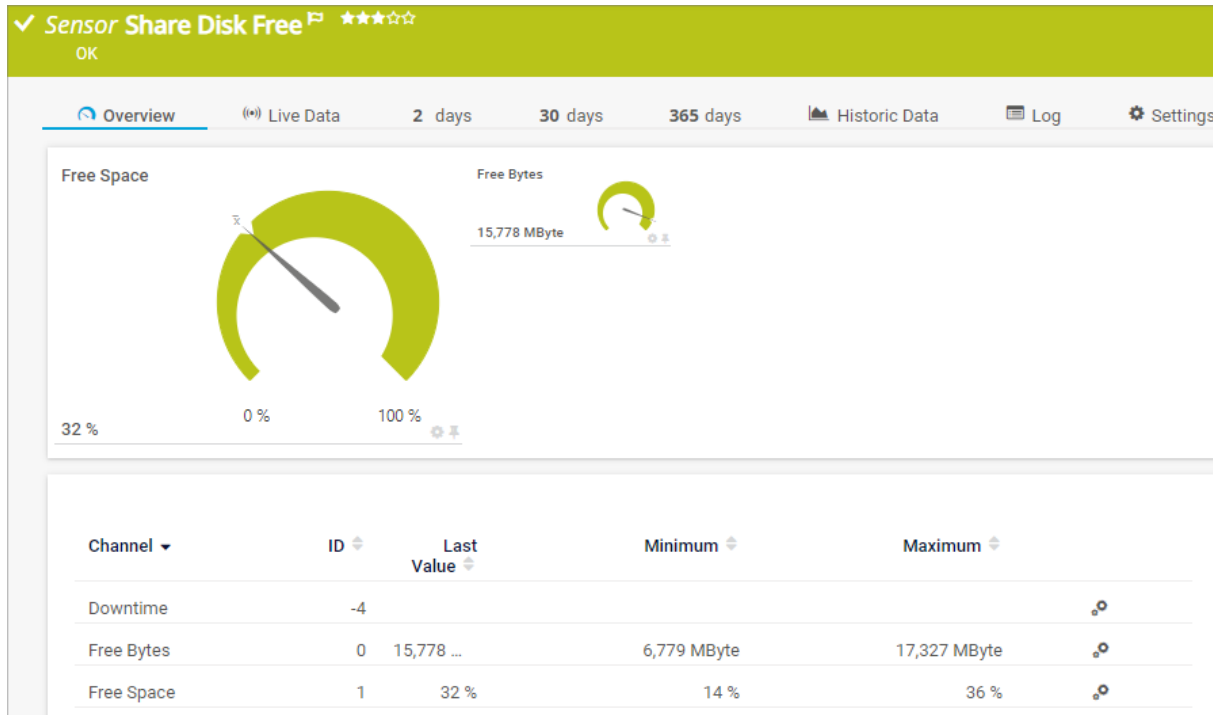
- [List of Available Sensor Types](#) 

- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.134 Share Disk Free Sensor

The Share Disk Free sensor monitors free disk space of a share (Windows/Samba) using server message block (SMB).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Share Disk Free Sensor

Sensor in Other Languages

- Dutch: Share Disk Ruimte
- French: Espace disque libre partagé
- German: Freigaben-Speicherplatz
- Japanese: 共有ディスク空き容量
- Portuguese: Disco livre para compartilhamento
- Russian:
- Simplified Chinese: 共享的磁盘可用空间
- Spanish: Disco libre share

Remarks

- This sensor requires that the LanmanServer service runs on the target computer.
- This sensor only works if no quotas are enabled on the target share. If there are quotas enabled for the user account that this sensor uses to connect to the share, the absolute value is okay, but the percentage variable shows incorrect values.

- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- See the Knowledge Base: [What can I do if PRTG doesn't succeed with monitoring a share? PE029 PE032](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
LanmanServer service	<p>To monitor shares on Windows machines, make sure that the LanmanServer service runs on the target computer.</p> <p>i The display name of the service is Server.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Example Name

Tags ⓘ

exampletag x +

Priority ⓘ

★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ diskspacesensor ▪ smbdiskspacesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Share Configuration

Share Configuration
Share ⓘ share01

Share Configuration

Setting	Description
Share	<p>Enter the name of the share that you want to monitor.</p> <ul style="list-style-type: none"> ❗ You can only enter a share name, for example, <code>C\$</code>. Do not enter a complete Universal Naming Convention (UNC) name. The sensor takes the server name <code>\\server\</code> from the parent device. ❗ To provide any shares under Windows, the <code>LanmanServer</code> service must run on the target computer. ❗ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <ul style="list-style-type: none"> ❗ You can set a different primary channel later by clicking ⬇ below a channel gauge on the sensor's Overview tab.
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none"> ❗ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Bytes	The free space in bytes

Channel	Description
Free Space	The free space in percent  This channel is the primary channel by default.

More

KNOWLEDGE BASE

What can I do if PRTG doesn't succeed with monitoring a share? PE029 PE032





- <https://kb.paessler.com/en/topic/513>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

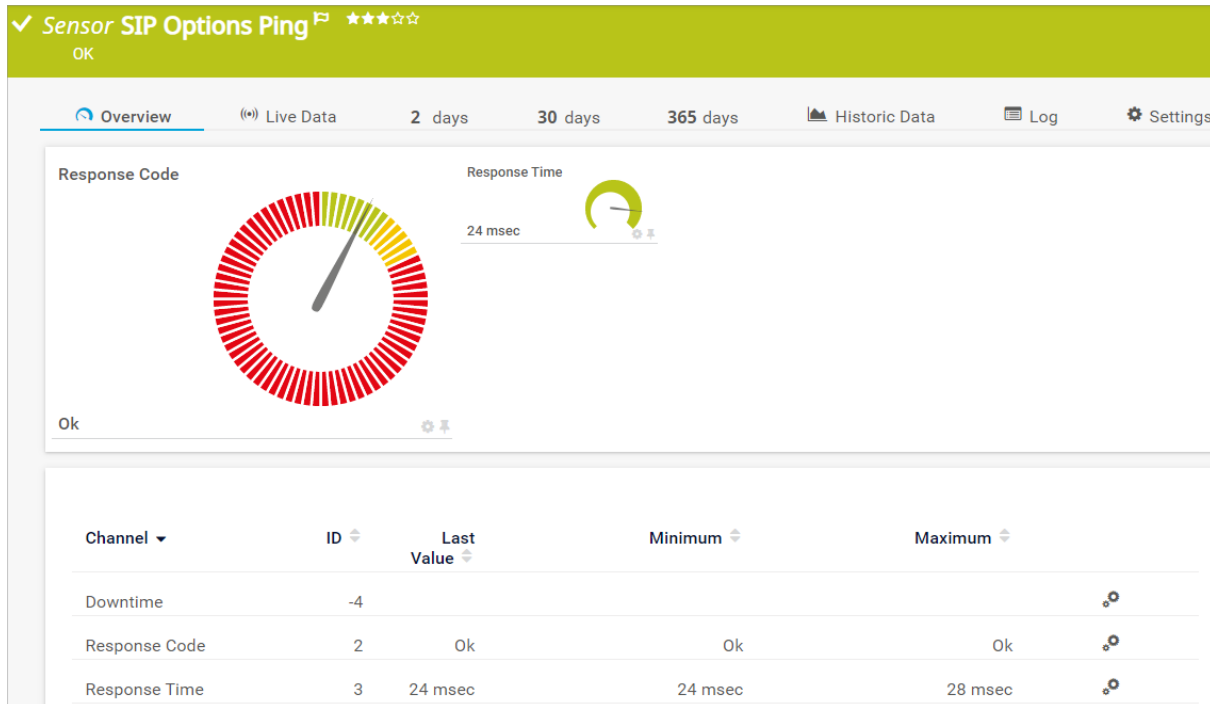
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3957

7.8.135 SIP Options Ping Sensor

The SIP Options Ping sensor monitors the connectivity to a Session Initiation Protocol (SIP) server using SIP options "Ping". The sensor sends **auth** and **options** requests to the SIP server.

i You can use this sensor to monitor Voice over IP (VoIP) services.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SIP Options Ping Sensor

Sensor in Other Languages



- Dutch: SIP Opties Ping
- French: Ping SIP Options
- German: SIP Options Ping
- Japanese: SIP オプション Ping
- Portuguese: SIP Options Ping
- Russian: SIP
- Simplified Chinese: SIP 选项 Ping
- Spanish: Opciones Ping SIP

Remarks

- This sensor requires .NET 4.7.2 or later on the probe system.
- An SIP server might return the error '**480 Service temporarily unavailable**' until at least one reachable SIP client is connected to the server.

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ ✕ +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree , as well as in alarms , logs , notifications , reports , maps , libraries , and tickets .

Setting	Description
Parent Tags	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p> <p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ pingsensor ▪ sipsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

SIP Specific

SIP Specific

	Port ⓘ	5060
	User Name ⓘ	johnqpublic
	Password ⓘ	.....
	Timeout (Sec.) ⓘ	5
	Retry Count ⓘ	2

SIP Specific

Setting	Description
Port	Enter the number of the port to which this sensor connects. Enter an integer value. The default User Datagram Protocol (UDP) port is 5060 .
User Name	Enter the user name of the SIP user account that this sensor logs in to after a successful connection to the SIP server. Enter a string.
Password	Enter the password of the SIP user account that this sensor logs in to after a successful connection to the SIP server. Enter a string.
Timeout (Sec.)	Enter the timeout for the connection to the SIP server. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).
Retry Count	If the connection to the SIP server fails, the sensor tries to connect again. Enter the maximum number of retries. After the sensor reaches the maximum count, it shows the Down status ¹⁹⁷ . Enter an integer value.

Debug Options

Debug Options

Result Handling ⓘ

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte




Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Response Code	The response code

Channel	Description
	<ul style="list-style-type: none"> You can individually define the status for each individual response code by editing the lookup  file <code>prtg.standardlookups.sip.statuscode</code>. This channel is the primary channel by default.
Response Time	The response time in milliseconds (msec)

More

KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

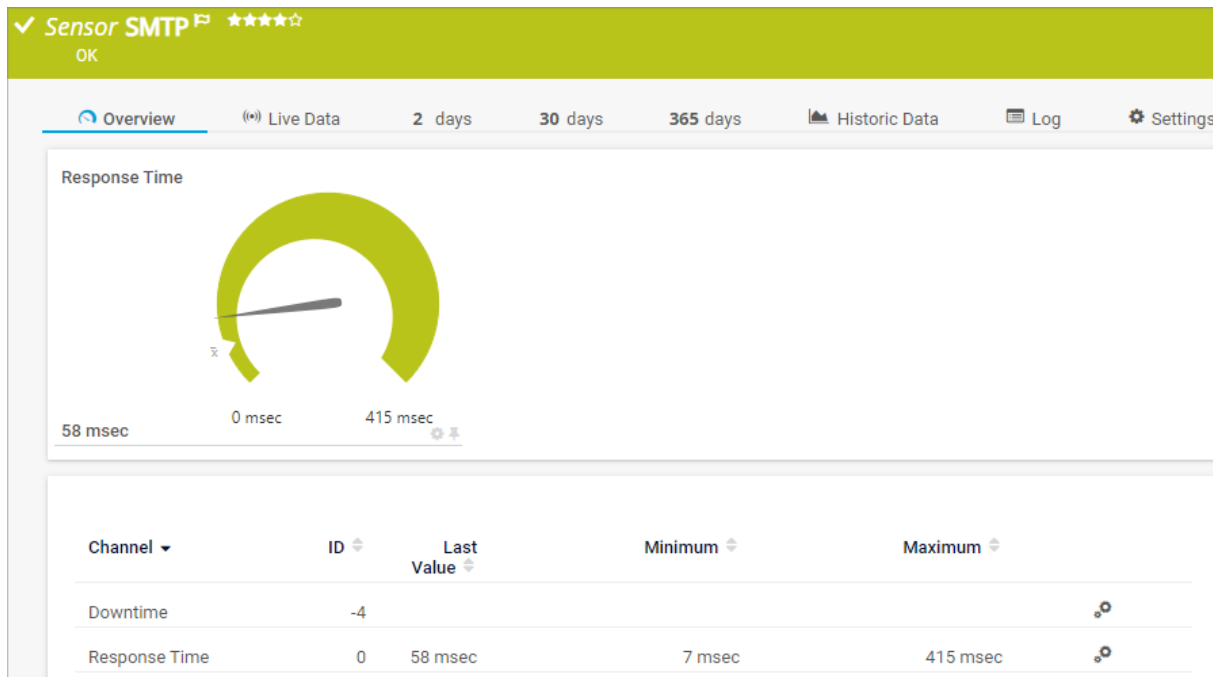
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
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- [Notification Triggers Settings](#)  3987

7.8.136 SMTP Sensor

The SMTP sensor monitors a mail server using the Simple Mail Transfer Protocol (SMTP).

i The sensor can optionally send a test email with every check.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SMTP Sensor

Sensor in Other Languages

- Dutch: SMTP
- French: SMTP
- German: SMTP
- Japanese: SMTP
- Portuguese: SMTP
- Russian: SMTP
- Simplified Chinese: SMTP
- Spanish: SMTP

Remarks

- This sensor does not support Secure Remote Password (SRP) ciphers.
- This sensor has a low performance impact.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections: 'Sensor Name' with a text input field containing 'Example Name'; 'Tags' with a text input field containing 'exampletag' and a plus sign button; and 'Priority' with a star rating of five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ smtpsensor ▪ mailsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SMTP Specific

SMTP Specific	
Timeout (Sec.) i	60
Port i	25

SMTP Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
Port	<p>Enter the number of the port that the sensor uses to send an email via SMTP. The default port for unsecure connections is 25 and the default ports for secure connections are 465 or 587. The actual setting depends on the server that you connect to. Enter an integer value.</p> <p>i We recommend that you use the default value.</p> <p>i If the connection is unsuccessful, try a different port number.</p>

Authentication

Authentication

SMTP Authentication Method ⓘ

None

User name and password

HELO Ident ⓘ

Authentication

Setting	Description
SMTP Authentication Method	Define if you want to use authentication for the SMTP connection: <ul style="list-style-type: none"> ▪ None: Do not use any authentication method. ▪ User name and password: Authenticate against the SMTP server via user name and password.
User Name	This setting is only visible if you select User name and password above. Enter a user name for SMTP authentication. Enter a string.
Password	This setting is only visible if you select User name and password above. Enter a password for SMTP authentication. Enter a string.
HELO Ident	Enter a server name for the HELO part of the email protocol. If you leave this field empty, the value defaults to the computer name. ⓘ For some mail servers, the HELO identifier must be the valid principal host domain name for the client host. See SMTP RFC 2821 . ⓘ Only ASCII characters are allowed.

Connection Security

Connection Security

Transport-Level Security ⓘ

Use transport-level security if available using StartTLS (default)

Use transport-level security if available

Enforce transport-level security using StartTLS

Enforce transport-level security

Connection Security

Setting	Description
Transport-Level Security	Define how the sensor handles the security of the connection:

Setting	Description
	<ul style="list-style-type: none"> ▪ Use transport-level security if available using StartTLS (default): Try to connect to the server via a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection and StartTLS. If the server does not support this, the sensor tries to connect without connection security. ▪ Use transport-level security if available: Try to connect to the server via an SSL/TLS-secured connection. If the server does not support this, the sensor tries to connect without connection security. ▪ Enforce transport-level security using StartTLS: Try to connect to the server via an SSL/TLS-secured connection and StartTLS. If the server does not support this, the sensor shows the Down status¹⁹⁷. ▪ Enforce transport-level security: Try to connect to the server via an SSL/TLS-secured connection. If the server does not support this, the sensor shows the Down status. <p>i If the sensor connects to a server via StartTLS, the connection is first established without connection security. After the connection has been established, the sensor sends a certain command (StartTLS) over the unsecured connection to negotiate a secure connection via SSL/TLS.</p> <p>i If the sensor does not use StartTLS, the negotiation of a secure connection happens immediately (implicitly) so that no commands are sent in unencrypted plain text. If no secure connection is possible, no communication takes place.</p>

Monitoring

Monitoring

Email Handling **i** Do not send an email
 Send an email

Result Handling **i** Discard result
 Store result

Monitoring

Setting	Description
Email Handling	<p>Define the monitoring approach when connecting to the SMTP server:</p> <ul style="list-style-type: none"> ▪ Do not send an email: Do not send an email, only connect to the SMTP server. ▪ Send an email: Send an email through the SMTP server. If there is an error when sending the email, this triggers an error message and the sensor changes to the Down status.

Setting	Description
From	This setting is only visible if you select Send email above. Specify the address of the sender of the email. Enter a valid email address.
To	This setting is only visible if you select Send email above. Specify the address that PRTG sends the email to. Enter a valid email address. ⓘ If you define more than one recipient, separate the individual email addresses with commas.
Topic	This setting is only visible if you select Send email above. Specify the subject that the email contains. Enter a string or leave the field empty.
Content	This setting is only visible if you select Send email above. Specify the body that the email contains. Enter a string or leave the field empty.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

Sensor Display


Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.

Setting	Description
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
Response Time	The response time in milliseconds (msec)  This channel is the primary channel by default.

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

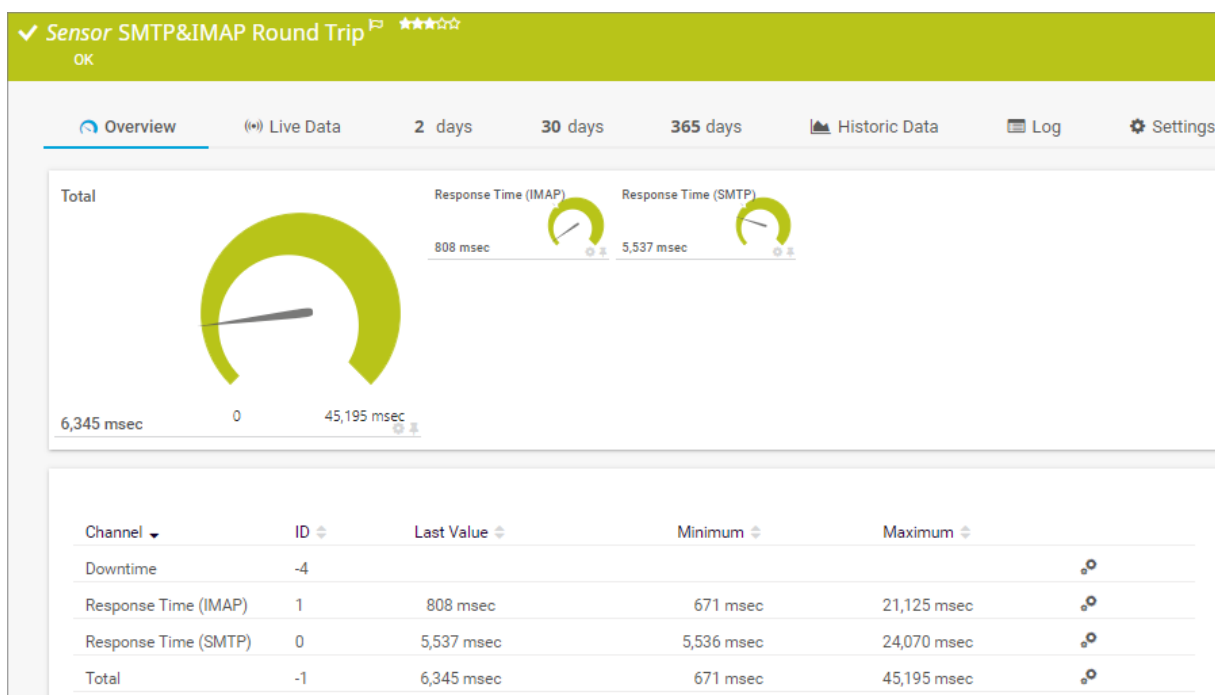
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.137 SMTP&IMAP Round Trip Sensor

The SMTP&IMAP Round Trip sensor monitors the time it takes for an email to reach an Internet Message Access Protocol (IMAP) mailbox using the Simple Mail Transfer Protocol (SMTP). It sends an email via the parent device (an SMTP server) and then scans a dedicated IMAP mailbox until the email arrives.

i The SMTP&IMAP Round Trip sensor automatically deletes these emails from the mailbox as soon as PRTG retrieves them. The emails only remain in the mailbox if a timeout or a restart of the PRTG core server occurs during sensor runtime.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SMTP&IMAP Round Trip Sensor

Sensor in Other Languages

- Dutch: SMTP & IMAP Round Trip
- French: Durée de boucle SMTP&IMAP
- German: SMTP&IMAP-Übermittlung
- Japanese: SMTP & IMAP ラウンドトリップ
- Portuguese: Percurso de ida e volta SMTP&IMAP
- Russian: SMTP&IMAP
- Simplified Chinese: SMTP 和 IMAP 往返
- Spanish: Ida y vuelta SMTP&IMAP

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- The parent device must be an SMTP server.
- This sensor does not support Secure Remote Password (SRP) ciphers.
- Use dedicated email accounts with this sensor. If you use more sensors of this type, make sure that each sensor uses its own email accounts.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ¹⁴⁵.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ imapsensor ▪ roundtrip ▪ mailsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).</p>

Email Settings

Email Settings

From ⓘ johnqpublic@example.com

To ⓘ janeqpublic@example.com

HELO Ident ⓘ mail.example.com

Email Settings

Setting	Description
From	Specify the email address of the email's sender. Enter a valid email address.
To	<p>Specify the address that PRTG sends the emails to. Enter a valid email address.</p> <p>i You can only enter one email address.</p>

Setting	Description
HELO Ident	Enter a server name for the HELO part of the mail protocol. For some mail servers, the HELO identifier must be the valid principal host domain name for the client host. For more information, see SMTP RFC 2821 .

Step 1: Send Email Using Parent Device (SMTP Server)

i In this step, you configure how the sensor sends the emails. The sensor uses the IP Address/DNS Name of the parent device (an SMTP server).

Step 1: Send Email Using Parent Device (SMTP Server)

Port <small>i</small>	25
Timeout for SMTP Connection (Sec.) <small>i</small>	300
SMTP Authentication Method <small>i</small>	<input checked="" type="radio"/> None <input type="radio"/> User name and password
Additional Text for Email Subject <small>i</small>	

Step 1: Send Email Using Parent Device (SMTP Server)

Setting	Description
Port	<p>Enter the number of the port that the sensor uses to send an email via SMTP. The default port for unsecure connections is 25 and the default ports for secure connections are 465 or 587. The actual setting depends on the server that you connect to. Enter an integer value.</p> <p>i We recommend that you use the default value.</p> <p>i If the connection is unsuccessful, try a different port number.</p>
Timeout for SMTP Connection (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
SMTP Authentication Method	<p>Define if you want to use authentication for the SMTP connection:</p> <ul style="list-style-type: none"> ▪ None: Do not use any authentication method. ▪ User name and password: Authenticate against the SMTP server via user name and password.

Setting	Description
User Name	This setting is only visible if you select User name and password above. Enter a user name for SMTP authentication. Enter a string.
Password	This setting is only visible if you select User name and password above. Enter a password for SMTP authentication. Enter a string.
Additional Text for Email Subject	<p>PRTG automatically creates the subject part of the round trip email. The subject consists of the string PRTG Roundtrip Mail:, followed by a unique globally unique identifier (GUID) to correctly identify the email in the IMAP mailbox, for example, PRTG Roundtrip Mail: {5E858D9C-AC70-466A-9B2A-55630165D276}.</p> <p>Use this field to place your custom text before the automatically created text.</p>

Connection Security

Connection Security

Transport-Level Security ⓘ

- Use transport-level security if available using StartTLS (default)
- Use transport-level security if available
- Enforce transport-level security using StartTLS
- Enforce transport-level security

Connection Security

Setting	Description
Transport-Level Security	<p>Define how the sensor handles the security of the connection:</p> <ul style="list-style-type: none"> ▪ Use transport-level security if available using StartTLS (default): Try to connect to the server via a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection and StartTLS. If the server does not support this, the sensor tries to connect without connection security. ▪ Use transport-level security if available: Try to connect to the server via an SSL/TLS-secured connection. If the server does not support this, the sensor tries to connect without connection security. ▪ Enforce transport-level security using StartTLS: Try to connect to the server via an SSL/TLS-secured connection and StartTLS. If the server does not support this, the sensor shows the Down status¹⁹⁷. ▪ Enforce transport-level security: Try to connect to the server via an SSL/TLS-secured connection. If the server does not support this, the sensor shows the Down status. <p> ⓘ If the sensor connects to a server via StartTLS, the connection is first established without connection security. After the connection has been established, the sensor sends a certain command (StartTLS) over the unsecured connection to negotiate a secure connection via SSL/TLS.</p>

Setting	Description
	<p>i If the sensor does not use StartTLS, the negotiation of a secure connection happens immediately (implicitly) so that no commands are sent in unencrypted plain text. If no secure connection is possible, no communication takes place.</p>

Step 2: Check an IMAP Mailbox until Email Arrives




i In this step, you configure how to receive the emails that the sensor sends.

Step 2: Check an IMAP Mailbox until Email Arrives

IP Address/DNS Name i	mail.example.com
Mailbox i	INBOX
Port i	143
Connection Interval (Sec.) i	10
Maximum Trip Time (Sec.) i	300
User Name i	johnqpublic
Password i	.....
Search Method i	<input checked="" type="radio"/> Search for the email directly (default) <input type="radio"/> Search through all available emails


Step 2: Check an IMAP Mailbox Until Email Arrives

Setting	Description
IP Address/DNS Name	Specify the IMAP server. Enter a valid IP address or Domain Name System (DNS) name.
Mailbox	<p>Specify the IMAP mailbox that you want to check. Enter the IMAP mailbox or folder name, for example INBOX.</p> <p>i The IMAP mailbox or folder name must not match the sender of the email in the From field. Otherwise, the sensor might incorrectly interpret unsuccessful round trips as successful.</p>
Port	Specify the port that the sensor uses for the IMAP connection. The default port for unsecure connections is 143 and the default port for secure connections is 993. The actual setting depends on the server you connect to.. Enter an integer value.

Setting	Description
	<p> We recommend that you use the default value.</p> <p> If the connection is unsuccessful, try a different port number.</p>
Connection Interval (Sec.)	Enter the number of seconds the sensor waits between two connections to the IMAP server. PRTG repeatedly checks the mailbox in this scanning interval until the email arrives. Enter an integer value.
Maximum Trip Time (Sec.)	Enter the number of seconds an email may take to arrive in the IMAP mailbox. PRTG continuously checks the mailbox in this scanning interval until the email arrives. If it does not arrive within the maximum trip time, the sensor shows an error message. Enter an integer value.
User Name	Enter a user name for IMAP authentication. Enter a string.
Password	Enter a password for IMAP authentication. Enter a string.  The password must not contain spaces, percent signs (%), or the character combination !*.
Search Method	Define how to search for the round trip email in the mailbox: <ul style="list-style-type: none"> ▪ Search for the email directly (default): Send a SEARCH command to directly find the round trip email on the IMAP server. ▪ Search through all available emails: Search through all available emails in the mailbox locally to find the round trip email. This might take some time if you have many emails in your mailbox.

Connection Security

Connection Security

IMAP Specific 

Use transport-level security if available using StartTLS (default)

Use transport-level security if available

Enforce transport-level security using StartTLS

Enforce transport-level security

Connection Security

Setting	Description
Transport-Level Security	Define how the sensor handles the security of the connection: <ul style="list-style-type: none"> ▪ Use transport-level security if available using StartTLS (default): Try to connect to the server via a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection and StartTLS. If the server does not support this, the sensor tries to connect without connection security.

Setting	Description
	<ul style="list-style-type: none"> ▪ Use transport-level security if available: Try to connect to the server via an SSL/TLS-secured connection. If the server does not support this, the sensor tries to connect without connection security. ▪ Enforce transport-level security using StartTLS: Try to connect to the server via an SSL/TLS-secured connection and StartTLS. If the server does not support this, the sensor shows the Down status¹⁹⁷. ▪ Enforce transport-level security: Try to connect to the server via an SSL/TLS-secured connection. If the server does not support this, the sensor shows the Down status. <p>i If the sensor connects to a server via StartTLS, the connection is first established without connection security. After the connection has been established, the sensor sends a certain command (StartTLS) over the unsecured connection to negotiate a secure connection via SSL/TLS.</p> <p>i If the sensor does not use StartTLS, the negotiation of a secure connection happens immediately (implicitly) so that no commands are sent in unencrypted plain text. If no secure connection is possible, no communication takes place.</p>

Debug Options

Debug Options

Result Handling **i**

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Response Time (IMAP)	The response time of the IMAP server in milliseconds (msec)
Response Time (SMTP)	The response time of the SMTP server in msec
Total	The sum of the response time of the IMAP server and the SMTP server in msec
	i This channel is the primary channel by default.

More





■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

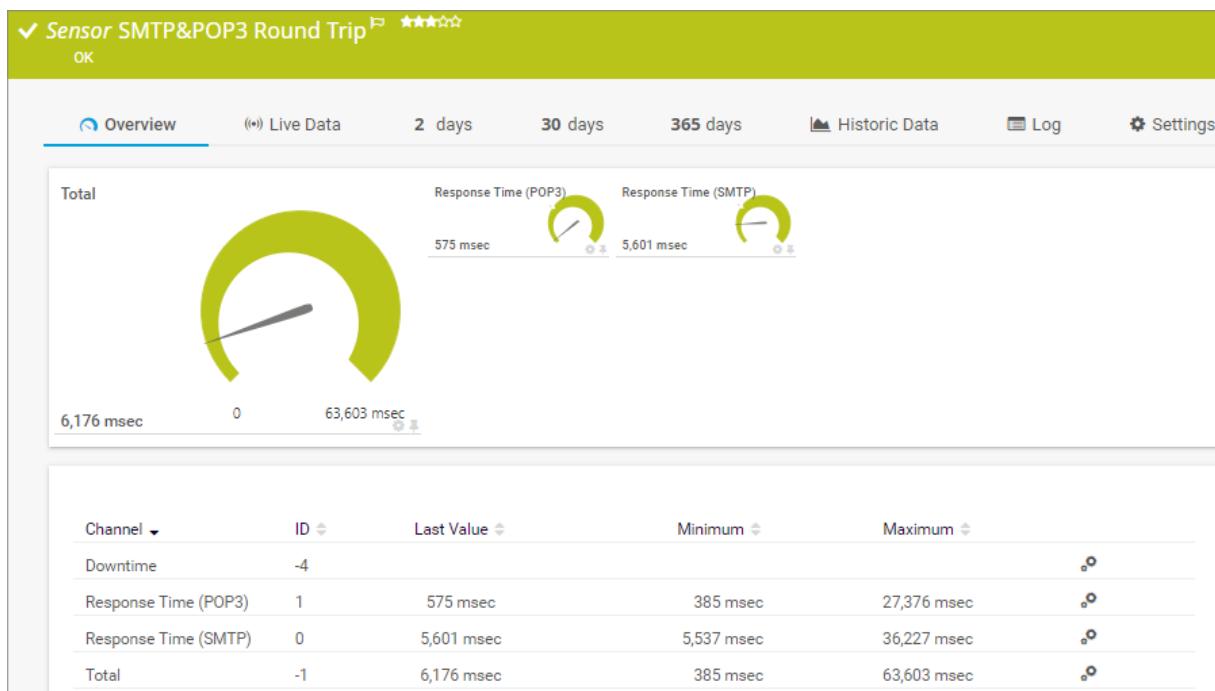
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.138 SMTP&POP3 Round Trip Sensor

The SMTP&POP3 Round Trip sensor monitors the time it takes for an email to reach a Post Office Protocol version 3 (POP3) mailbox using the Simple Mail Transfer Protocol (SMTP). It sends an email using the parent device (an SMTP server) and then scans a dedicated POP3 mailbox until the email comes in.

i The SMTP&POP3 Round Trip sensor automatically deletes these emails from the mailbox as soon as PRTG has retrieved them. Emails only remain in the mailbox if a timeout or a restart of the PRTG core server occurs during sensor runtime.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SMTP&POP3 Round Trip Sensor

Sensor in Other Languages

- Dutch: SMTP & POP3 Round Trip
- French: Durée de boucle SMTP&POP3
- German: SMTP&POP3-Übermittlung
- Japanese: SMTP&POP3 ラウンドトリップ
- Portuguese: Percurso de ida e volta SMTP&POP3
- Russian: SMTP POP3
- Simplified Chinese: SMTP 和 POP3 往返
- Spanish: Ida y vuelta SMTP&POP3

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- The parent device must be an SMTP server.
- This sensor does not support Secure Remote Password (SRP) ciphers.
- Use dedicated email accounts with this sensor. If you use more sensors of this type, make sure that each sensor uses its own email accounts.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name**: A text input field containing "Example Name".
- Tags**: A list of tags, currently showing "exampletag" with a close button (X) and a plus button (+) to add more.
- Priority**: A star rating system showing 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ¹⁴⁵.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ pop3sensor ▪ roundtrip ▪ mailsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

Email Settings

Email Settings

From ⓘ johnqpublic@example.com

To ⓘ janeqpublic@example.com

HELO Ident ⓘ mail.example.com

Email Settings

Setting	Description
From	<p>Specify the email address of the email's sender. Enter a valid email address.</p>
To	<p>Specify the address that PRTG sends the emails to. Enter a valid email address.</p> <p>i You can only enter one email address.</p>

Setting	Description
HELO Ident	Enter a server name for the HELO part of the mail protocol. For some mail servers, the HELO identifier must be the valid principal host domain name for the client host. For more information, see SMTP RFC 2821 .

Step 1: Send Email Using Parent Device (SMTP Server)

i In this step, you configure how the sensor sends the emails. The sensor uses the IP Address/DNS Name of the parent device (an SMTP server).

Step 1: Send Email Using Parent Device (SMTP Server)

Port <small>i</small>	25
Timeout for SMTP Connection (Sec.) <small>i</small>	300
SMTP Authentication Method <small>i</small>	<input checked="" type="radio"/> None <input type="radio"/> User name and password
Additional Text for Email Subject <small>i</small>	

Step 1: Send Email Using Parent Device (SMTP Server)

Setting	Description
Port	<p>Enter the number of the port that the sensor uses to send an email via SMTP. The default port for unsecure connections is 25 and the default ports for secure connections are 465 or 587. The actual setting depends on the server that you connect to. Enter an integer value.</p> <p>i We recommend that you use the default value.</p> <p>i If the connection is unsuccessful, try a different port number.</p>
Timeout for SMTP Connection (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
SMTP Authentication Method	<p>Define if you want to use authentication for the SMTP connection:</p> <ul style="list-style-type: none"> ▪ None: Do not use any authentication method. ▪ User name and password: Authenticate against the SMTP server via user name and password.

Setting	Description
User Name	This setting is only visible if you select User name and password above. Enter a user name for SMTP authentication. Enter a string.
Password	This setting is only visible if you select User name and password above. Enter a password for SMTP authentication. Enter a string.
Additional Text for Email Subject	<p>PRTG automatically creates the subject part of the round trip email. The subject consists of the string PRTG Roundtrip Mail:, followed by a unique globally unique identifier (GUID) to correctly identify the email in the IMAP mailbox, for example, PRTG Roundtrip Mail: {5E858D9C-AC70-466A-9B2A-55630165D276}.</p> <p>Use this field to place your custom text before the automatically created text.</p>

Connection Security

Connection Security

Transport-Level Security ⓘ

- Use transport-level security if available using StartTLS (default)
- Use transport-level security if available
- Enforce transport-level security using StartTLS
- Enforce transport-level security

Connection Security

Setting	Description
Transport-Level Security	<p>Define how the sensor handles the security of the connection:</p> <ul style="list-style-type: none"> ▪ Use transport-level security if available using StartTLS (default): Try to connect to the server via a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection and StartTLS. If the server does not support this, the sensor tries to connect without connection security. ▪ Use transport-level security if available: Try to connect to the server via an SSL/TLS-secured connection. If the server does not support this, the sensor tries to connect without connection security. ▪ Enforce transport-level security using StartTLS: Try to connect to the server via an SSL/TLS-secured connection and StartTLS. If the server does not support this, the sensor shows the Down status¹⁹⁷. ▪ Enforce transport-level security: Try to connect to the server via an SSL/TLS-secured connection. If the server does not support this, the sensor shows the Down status. <p> ⓘ If the sensor connects to a server via StartTLS, the connection is first established without connection security. After the connection has been established, the sensor sends a certain command (StartTLS) over the unsecured connection to negotiate a secure connection via SSL/TLS.</p>

Setting	Description
	<p>i If the sensor does not use StartTLS, the negotiation of a secure connection happens immediately (implicitly) so that no commands are sent in unencrypted plain text. If no secure connection is possible, no communication takes place.</p>

Step 2: Check a POP3 Mailbox until Email Arrives

i In this step, you configure how to receive the sent emails.

Step 2: Check a POP3 Mailbox until Email Arrives

IP Address/DNS Name i	mail.example.com
Port i	110
Connection Interval (Sec.) i	5
Maximum Trip Time (Sec.) i	300
POP3 Authentication Method i	<input checked="" type="radio"/> Without login <input type="radio"/> User name and password <input type="radio"/> 128-bit MD5 hash value (APOP)

Email Settings

Setting	Description
IP Address/DNS Name	Specify the POP3 server. Enter a valid IP address or Domain Name System (DNS) name.
Port	<p>Specify the port that the sensor uses for the POP3 connection. The default port for unsecure connections is 110 and the default port for secure connections is 995. The actual setting depends on the server you connect to. Enter an integer value.</p> <p>i We recommend that you use the default value.</p> <p>i If the connection is unsuccessful, try a different port number.</p>
Connection Interval (Sec.)	Enter the number of seconds the sensor waits between two connections to the POP3 server. PRTG continuously checks the mailbox in this scanning interval until the email arrives. Enter an integer value.

Setting	Description
Maximum Trip Time (Sec.)	Enter the number of seconds an email may take to arrive in the POP3 mailbox. PRTG continuously checks the mailbox in the interval that you specify above until the email arrives. If it does not arrive within the maximum trip time, the sensor triggers an error message. Enter an integer value.
POP3 Authentication Method	Select the authentication method for the POP3 connection: <ul style="list-style-type: none"> Without login: Only monitor the connection to the POP3 server. User name and password: Log in to the POP3 server with user name and password. <ul style="list-style-type: none"> i This is a simple login. It is not secure. 128-bit MD5 hash value (APOP): Send the password in an encrypted form using APOP. <ul style="list-style-type: none"> i The POP3 server that you connect to must support this option.
User Name	This setting is only visible if you select User name and password or 128-bit has value (APOP) above. Enter a user name for POP3 authentication. Enter a string.
Password	This setting is only visible if you select User name and password or 128-bit has value (APOP) above. Enter a user name for POP3 authentication. Enter a string.

Connection Security

Connection Security

POP3 Specific **i**

Use transport-level security if available using StartTLS (default)

Use transport-level security if available

Enforce transport-level security using StartTLS

Enforce transport-level security

Connection Security

Setting	Description
Transport-Level Security	Define how the sensor handles the security of the connection: <ul style="list-style-type: none"> Use transport-level security if available using StartTLS (default): Try to connect to the server via a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection and StartTLS. If the server does not support this, the sensor tries to connect without connection security. Use transport-level security if available: Try to connect to the server via an SSL/TLS-secured connection. If the server does not support this, the sensor tries to connect without connection security.

Setting	Description
	<ul style="list-style-type: none"> ▪ Enforce transport-level security using StartTLS: Try to connect to the server via an SSL/TLS-secured connection and StartTLS. If the server does not support this, the sensor shows the Down status¹⁹⁷. ▪ Enforce transport-level security: Try to connect to the server via an SSL/TLS-secured connection. If the server does not support this, the sensor shows the Down status. <p>i If the sensor connects to a server via StartTLS, the connection is first established without connection security. After the connection has been established, the sensor sends a certain command (StartTLS) over the unsecured connection to negotiate a secure connection via SSL/TLS.</p> <p>i If the sensor does not use StartTLS, the negotiation of a secure connection happens immediately (implicitly) so that no commands are sent in unencrypted plain text. If no secure connection is possible, no communication takes place.</p>

Debug Options

Debug Options

Result Handling **i**

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Response Time (POP3)	The response time of the POP3 server in milliseconds (msec)
Response Time (SMTP)	The response time of the SMTP server in msec
Total	<p>The sum of the response time of the SMTP server and the POP3 server in msec</p> <p>i This channel is the primary channel by default.</p>

More

■ KNOWLEDGE BASE





What security features does PRTG include?

Part 7: Device and Sensor Setup | 8 Sensor Settings
138 SMTP&POP3 Round Trip Sensor

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

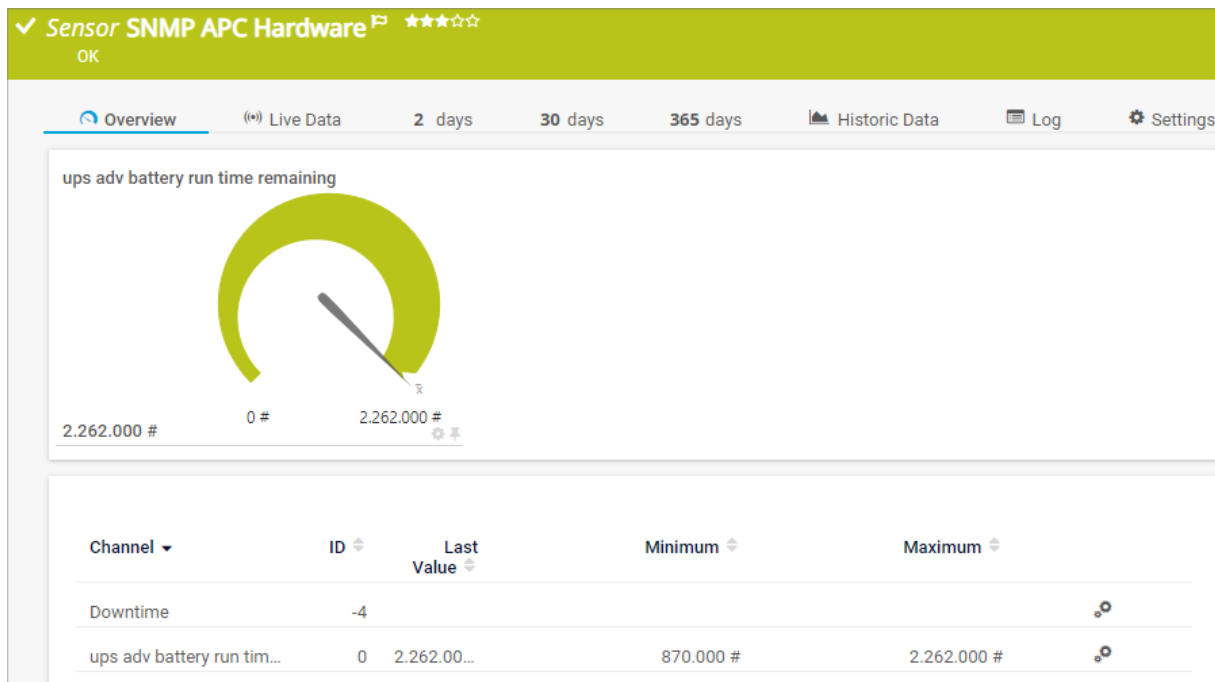
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.139 SNMP APC Hardware Sensor

The SNMP APC Hardware sensor monitors performance counters on an APC UPS device via the Simple Network Management Protocol (SNMP).

i The SNMP APC Hardware sensor does not appear as a running sensor, instead it is created as an [SNMP Custom Advanced sensor](#) ²⁴⁸⁴.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ²³¹⁴.



SNMP APC Hardware Sensor

Sensor in Other Languages

- Dutch: SNMP APC Hardware
- French: Matériels SNMP APC
- German: SNMP APC Hardware
- Japanese: SNMP APC ハードウェア
- Portuguese: Hardware SNMP APC
- Russian: SNMP APC
- Simplified Chinese: SNMP APC 硬件
- Spanish: SNMP APC Hardware

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

- See the Knowledge Base: [How can I monitor additional counters with the SNMP APC Hardware sensor?](#)
- See the Knowledge Base: [How can I monitor an APC UPS that does not support SNMP?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

APC UPS Specific

Setting	Description
Library OIDs	<p>Select the performance counters that you want to monitor. PRTG creates one SNMP Custom Advanced sensor for each Library OID category that you select.</p> <p>i If you select more than 10 OIDs per category, PRTG creates the corresponding amount of SNMP Custom Advanced sensors.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ X +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ <code>apcup</code>
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

APC UPS Specific

APC UPS Specific

Interface ⓘ *PowerNet-MIB/ups adv battery/ups adv battery run time remaining*

Unit String ⓘ #

Multiplication ⓘ

Division ⓘ

If Value Changes ⓘ Ignore changes
 Trigger 'change' notification

APC UPS Specific

Setting	Description
Interface	Shows the name of the interface (performance counter) that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Unit String	Define the unit of the numeric data that the sensor monitors at the OID. Enter a string.
Multiplication	If you want to multiply the received data with a certain value, enter the quotient. Enter an integer value.
Division	If you want to divide the received data by a certain value, enter the divisor. Enter an integer value.
If Value Changes	Define what the sensor does when the sensor value changes: <ul style="list-style-type: none"> Ignore changes (default): Take no action on change. Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁶, you can use this mechanism to trigger a notification³⁹⁸⁷ whenever the sensor value changes.




Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights

Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Performance Counter]	<p>The performance counters on an APC UPS device</p> <ul style="list-style-type: none"> ▪ Actual voltage of battery ▪ Capacity of battery ▪ Input and output frequency ▪ Input and output voltage ▪ Output load ▪ Remaining runtime of battery ▪ Temperature of battery

More

■ KNOWLEDGE BASE

How can I monitor additional counters with the SNMP APC Hardware sensor?

- <https://kb.paessler.com/en/topic/60367>

How can I monitor an APC UPS that does not support SNMP?

- <https://kb.paessler.com/en/topic/63674>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?



- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#) 
- [Additional Sensor Types \(Custom Sensors\)](#) 

- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

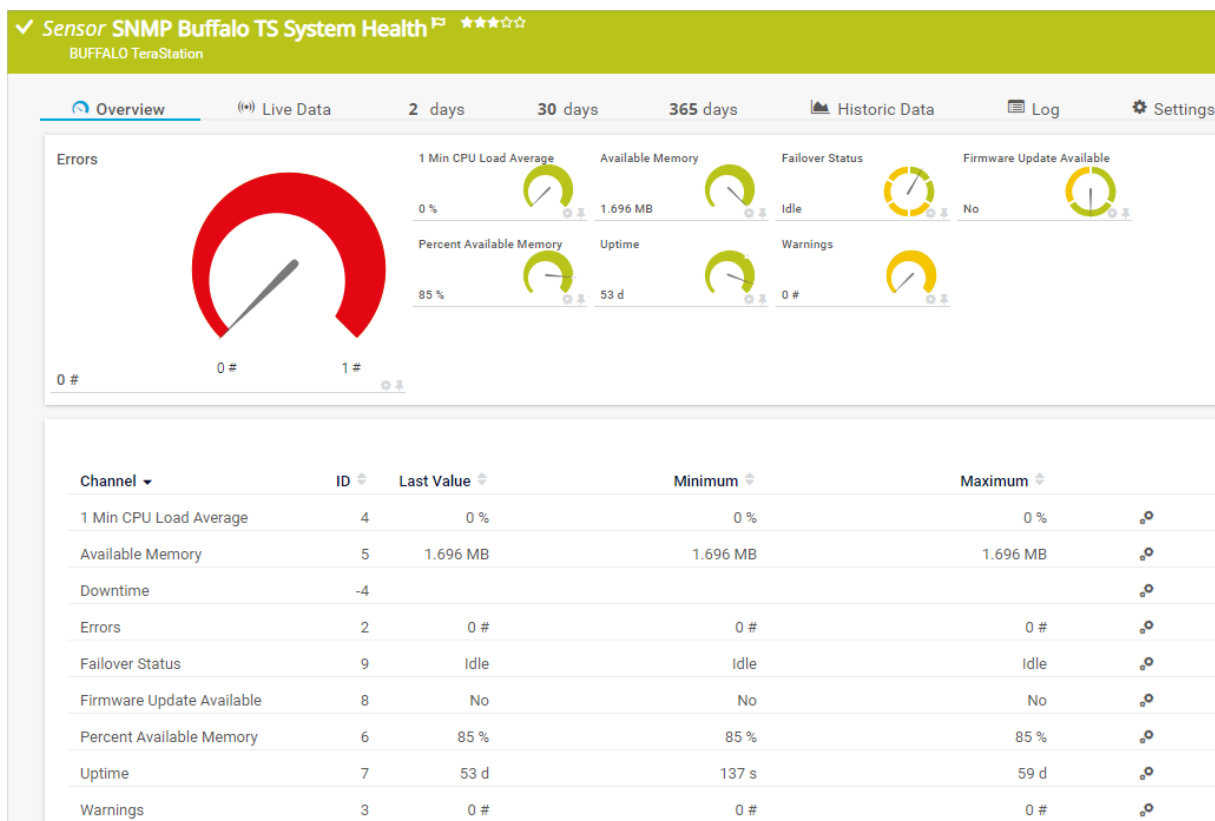
7.8.140 SNMP Buffalo TS System Health Sensor

The SNMP Buffalo TS System Health sensor monitors the system health of a Buffalo TeraStation network-attached storage (NAS) via the Simple Network Management Protocol (SNMP).

i This sensor supports the following TeraStation systems: [3000](#), [3010](#), [3020](#), [5000](#), [5010](#), [6000](#), and [7000](#) series.

i Run an [auto-discovery](#) with the device template Buffalo TeraStation NAS to automatically create [SNMP Custom Table sensors](#) with additional useful information about the TeraStation, for example, array status, disk smart status, disk status, and Internet Small Computer System Interface (iSCSI) status. This device template also creates [SNMP sensors](#) for traffic, memory, and load average on the TeraStation.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Buffalo TS System Health Sensor

Sensor in Other Languages

- Dutch: SNMP Buffalo TS System Status
- French: État du système SNMP Buffalo TS
- German: SNMP Buffalo TS System Health
- Japanese: SNMP Buffalo TS システムの正常性
- Portuguese: SNMP Buffalo TS Funcionamento do sistema

- Russian: Buffalo TS SNMP
- Simplified Chinese: SNMP Buffalo TS 系统健康状况
- Spanish: Salud del sistema NS de Buffalo TS SNMP

Remarks

- This sensor supports the TeraStation 3000, 3010, 3020, 5000, 5010, 6000, and 7000 series.
- In certain cases, this sensor might show an error message. If you encounter such an issue, open the [settings of the parent device](#)^[463], section SNMP Compatibility Options, and set the Walk Mode to Use GETNEXT requests.
- This sensor has predefined limits for several metrics. You can individually change these limits in the channel settings. For detailed information about channel limits, see section [Channel Settings](#)^[3977].
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)^[448].

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name**: A text input field containing "Example Name".
- Tags**: A list of tags with "exampletag" selected, accompanied by a plus sign to add more tags.
- Priority**: A star rating system showing three stars selected out of five.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree ^[183] , as well as in alarms ^[228] , logs ^[237] , notifications ^[4031] , reports ^[4039] , maps ^[4035] , libraries ^[4047] , and tickets ^[240] .

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpbuffalots ▪ buffalots ▪ systemhealth
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.




Sensor Display

Sensor Display


Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule


Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

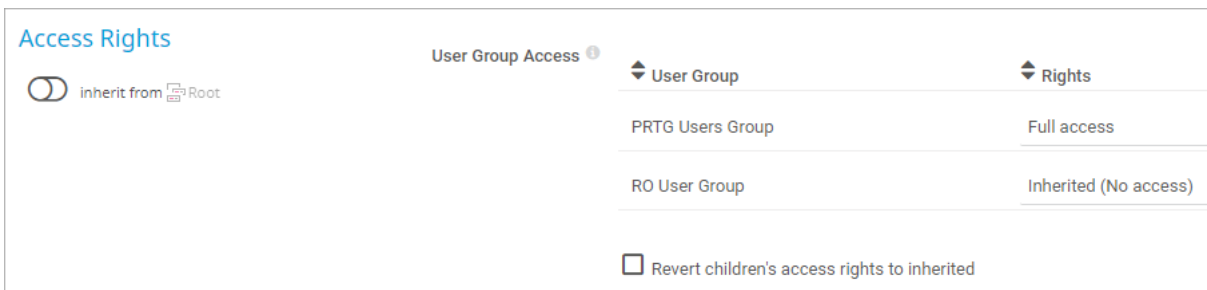
Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights


inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management [158].</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
1 Min CPU Load Average	The average CPU load in percent
Available Memory	The available memory in bytes
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Errors	The number of errors i This channel is the primary channel by default.
Failover Status	The failover status <ul style="list-style-type: none"> Up status¹⁹⁷: Busy, Idle Warning status: Initializing, Starting Backup, Starting Main, Stopping
Firmware Update Available	If a firmware update is available <ul style="list-style-type: none"> Up status: No, Unknown Warning status: Yes
Percent Available Memory	The available memory in percent
Uptime	The system uptime
Warnings	The number of warnings

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

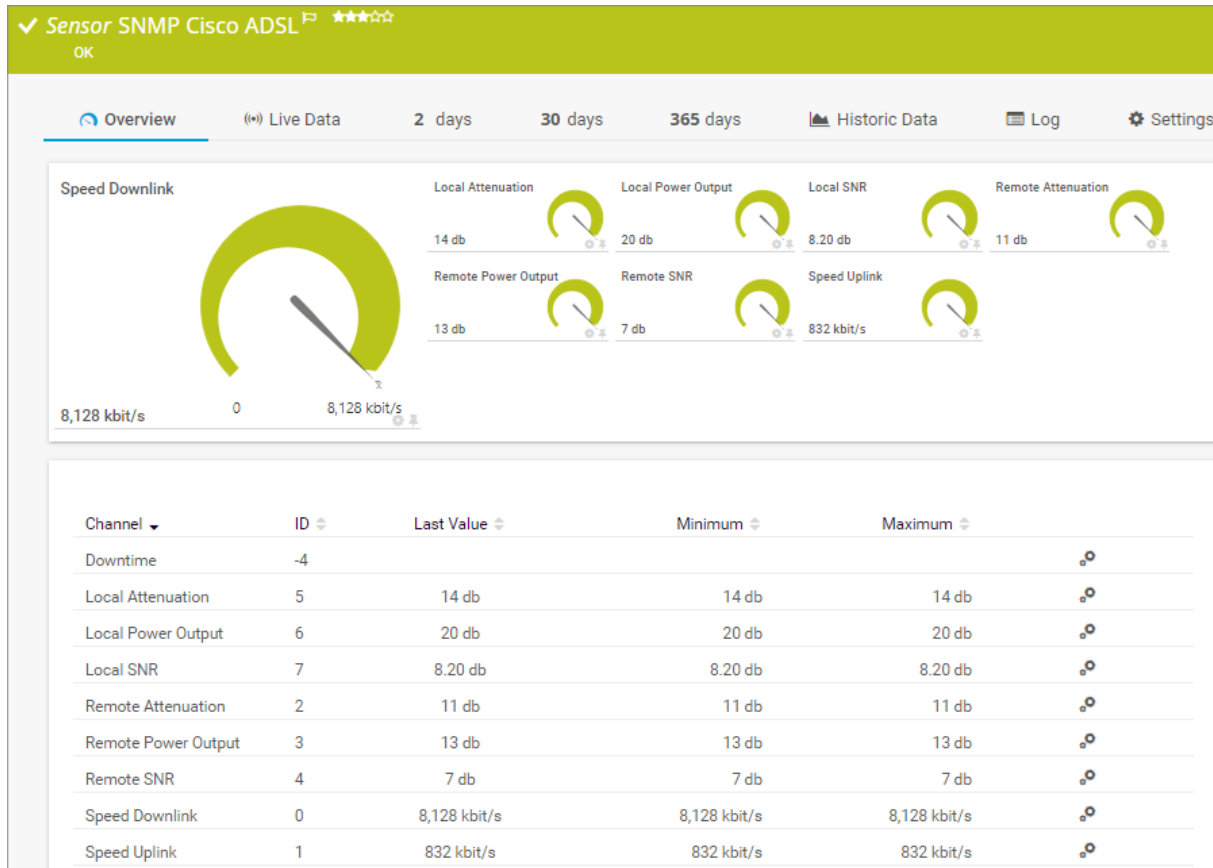
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.141 SNMP Cisco ADSL Sensor

The SNMP Cisco ADSL sensor monitors asymmetric digital subscriber line (ADSL) statistics of a Cisco router via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Cisco ADSL Sensor

Sensor in Other Languages

- Dutch: SNMP Cisco ADSL
- French: ADSL Cisco SNMP
- German: SNMP Cisco ADSL
- Japanese: SNMP Cisco ADSL
- Portuguese: SNMP Cisco ADSL
- Russian: SNMP Cisco ADSL
- Simplified Chinese: SNMP Cisco ADSL
- Spanish: SNMP Cisco ADSL

Remarks

- This sensor supports the IPv6 protocol.

- This sensor has a low performance impact.
- For a general introduction to the technology behind SNMP, see section [Monitoring via SNMP](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Cisco ADSL Settings

Setting	Description
Line Index	<p>Select the performance counters that you want to monitor. PRTG creates one sensor for each performance counter that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus sign, and a 'Priority' field with five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpcisoadsl
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Cisco ADSL Settings

Cisco ADSL Settings
Line Index **i** 13

Cisco ADSL Settings

Setting	Description
Line Index	<p>Shows the line index (performance counter) that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⚙ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Local Attenuation	The local attenuation in decibels (db)
Local Power Output	The local power output in db
Local SNR	The local signal-to-noise ratio (SNR) in db
Remote Attenuation	The remote attenuation in db
Remote Power Output	The remote power output in db
Remote SNR	The remote SNR in db
Speed Downlink	The downlink speed in bytes per second

Channel	Description
	 This channel is the primary channel by default.
Speed Uplink	The uplink speed in bytes per second

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

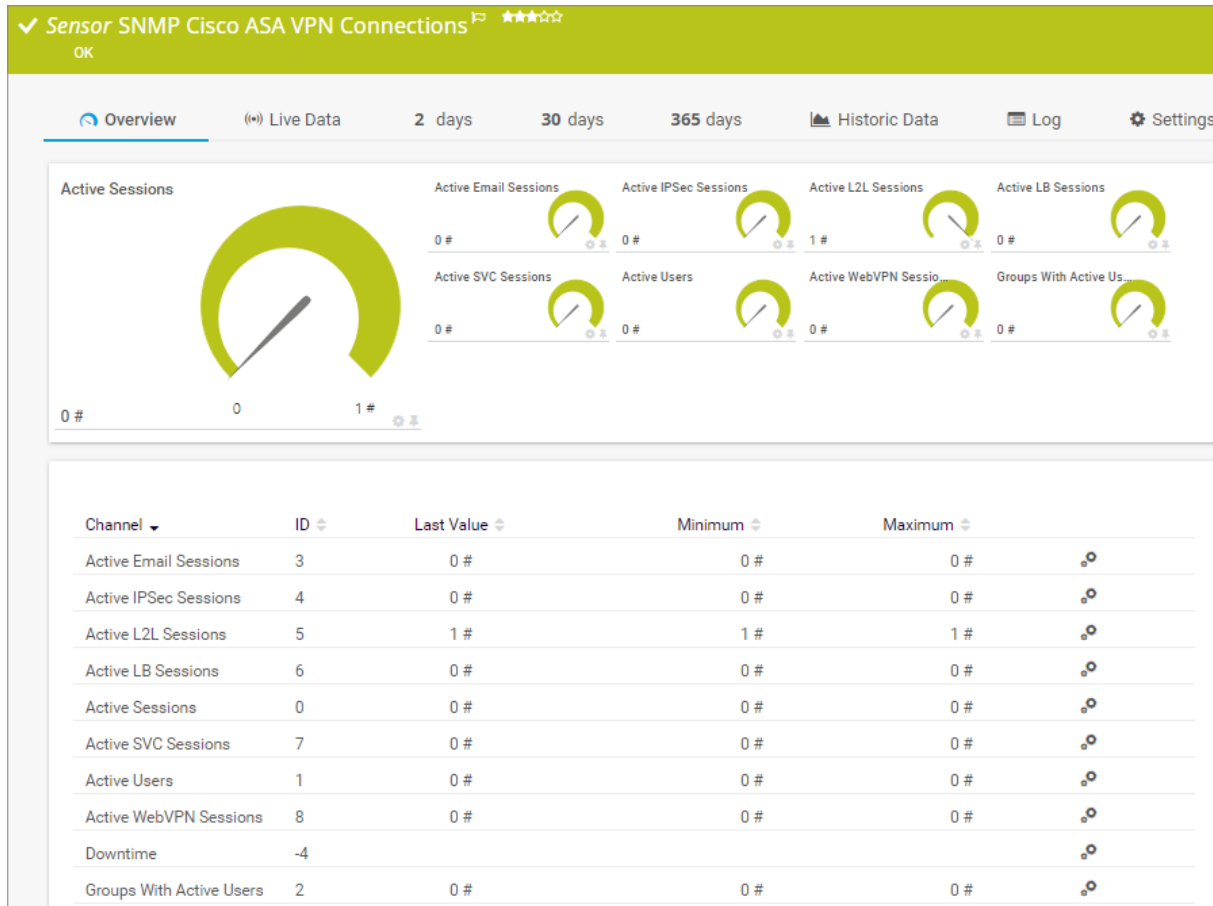
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3957

7.8.142 SNMP Cisco ASA VPN Connections Sensor

The SNMP Cisco ASA VPN Connections sensor monitors the VPN connections on a Cisco Adaptive Security Appliance via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Cisco ASA VPN Connections Sensor

Sensor in Other Languages

- Dutch: SNMP Cisco ASA VPN Verbindingen
- French: Connexions VPN ASA Cisco SNMP
- German: SNMP Cisco ASA VPN-Verbindungen
- Japanese: SNMP Cisco ASA VPN 接続数
- Portuguese: Conexões VPN SNMP Cisco ASA
- Russian: SNMP Cisco ASA VPN
- Simplified Chinese: SNMP Cisco ASA VPN 连接
- Spanish: Conexiones SNMP Cisco ASA VPN

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- For a general introduction to the technology behind SNMP, see section [Monitoring via SNMP](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p>

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> snmpciscoasavpnsensor snmpciscoasavpnconnectionssensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display


Sensor Display

Primary Channel **ⓘ** Downtime


Graph Type **ⓘ** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


 For more information, see section [Inheritance of Settings](#)¹⁴².


Credentials for SNMP Devices


Click  to interrupt the [inheritance](#)¹⁴².


Credentials for SNMP Devices

 inherit from  Root

SNMP Version  v1
 v2c (recommended)
 v3

Community String  public






SNMP Port  161

Timeout (Sec.)  5

Credentials for SNMP Devices

Setting	Description
SNMP Version	Select the Simple Network Management Protocol (SNMP) version for the connection to the target SNMP device:


Setting	Description
	<ul style="list-style-type: none"> ▪ SNMP v1: Use SNMP v1 for the connection. SNMP v1 only offers clear-text data transmission. <ul style="list-style-type: none"> ❗ SNMP v1 does not support 64-bit counters. This might result in invalid data when you monitor traffic via SNMP. ▪ SNMP v2c (recommended): Use SNMP v2c for the connection. SNMP v2c also only offers clear-text data transmission but it supports 64-bit counters. ▪ SNMP v3: Use SNMP v3 for the connection. SNMP v3 provides secure authentication and data encryption. <ul style="list-style-type: none"> ❗ SNMP v3 has performance limitations because of the use of encryption. The main limiting factor is CPU power. Also keep in mind that SNMP v3, unlike SNMP v1 and v2c, does not scale with more CPU power. Because of this limitation, PRTG can only handle a limited number of requests per second so that you can use only a limited number of sensors using SNMP v3. If you see an increase in Interval Delay or Open Requests with the Probe Health sensor^[2083], distribute the load over multiple probes^[4503]. SNMP v1 and SNMP v2c do not have this limitation.
Community String	<p>This setting is only visible if you select SNMP v1 or SNMP v2c above. Enter the community string of your device. This is like a clear-text password for simple authentication.</p> <p>❗ We recommend that you use the default value.</p>
Authentication Method	<p>This setting is only visible if you select SNMP v3 above. Select the authentication method:</p> <ul style="list-style-type: none"> ▪ MD5: Use message-digest algorithm 5 (MD5) for authentication. ▪ SHA: Use Secure Hash Algorithm (SHA) for authentication. <p>❗ If you do not want to use authentication but you need SNMP v3, for example, because your device requires context, you can leave the Password field empty. In this case, PRTG uses SNMP_SEC_LEVEL_NOAUTH and it entirely deactivates authentication.</p> <p>❗ The authentication method you select must match the authentication method of your device.</p>
User Name	<p>This setting is only visible if you select SNMP v3 above. Enter the user name for access to the target SNMP device.</p> <p>❗ The user name that you enter must match the user name of your device.</p>
Password	<p>This setting is only visible if you select SNMP v3 above. Enter the password for access to the target SNMP device.</p> <p>❗ The password that you enter must match the password of your device.</p>



Setting	Description
Encryption Type	<p>This setting is only visible if you select SNMP v3 above. Select an encryption type:</p> <ul style="list-style-type: none"> ▪ DES: Use Data Encryption Standard (DES) as the encryption algorithm. ▪ AES: Use Advanced Encryption Standard (AES) as the encryption algorithm. <p> Net-SNMP does not support AES-192 and AES-256. They do not have RFC specifications.</p> <p> The encryption type that you select must match the encryption type of your device.</p>
Encryption Key	<p>This setting is only visible if you select SNMP v3 above. Enter an encryption key. If you provide a key, PRTG encrypts SNMP data packets with the encryption algorithm that you selected above. Enter a string or leave the field empty.</p> <p> The encryption key that you enter must match the encryption key of your device. If the encryption keys do not match, you do not get an error message.</p>
Context Name	<p>This setting is only visible if you select SNMP v3 above. Enter a context name only if the configuration of the device requires it. Context is a collection of management information that is accessible by an SNMP device. Enter a string.</p>
SNMP Port	<p>Enter the port for the connection to the SNMP target device. Enter an integer value. The default port is 161.</p> <p> We recommend that you use the default value.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p> <p> If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>


Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none">▪ 30 seconds▪ 60 seconds▪ 5 minutes▪ 10 minutes▪ 15 minutes▪ 30 minutes▪ 1 hour▪ 4 hours▪ 6 hours▪ 12 hours▪ 24 hours <p> You can change the available intervals in the system administration <small>4187</small> on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status <small>197</small>. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none">▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails.▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails.▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails.

Setting	Description
	<p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i**



Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>


Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].


Access Rights

inherit from  Root


User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Active Email Sessions	The number of active email sessions
Active IPsec Sessions	The number of active Internet Protocol Security (IPsec) sessions
Active L2L Sessions	The number of active LAN-to-LAN (L2L) sessions
Active LB Sessions	The number of active LB sessions
Active Sessions	<p>The total number of active sessions</p> <p> This channel is the primary channel by default.</p>
Active SVC Sessions	The number of active switched virtual circuit (SVC) sessions
Active Users	The number of active users

Channel	Description
Active WebVPN Sessions	The number of active WebVPN users
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Groups With Active Users	The number of groups with active users

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

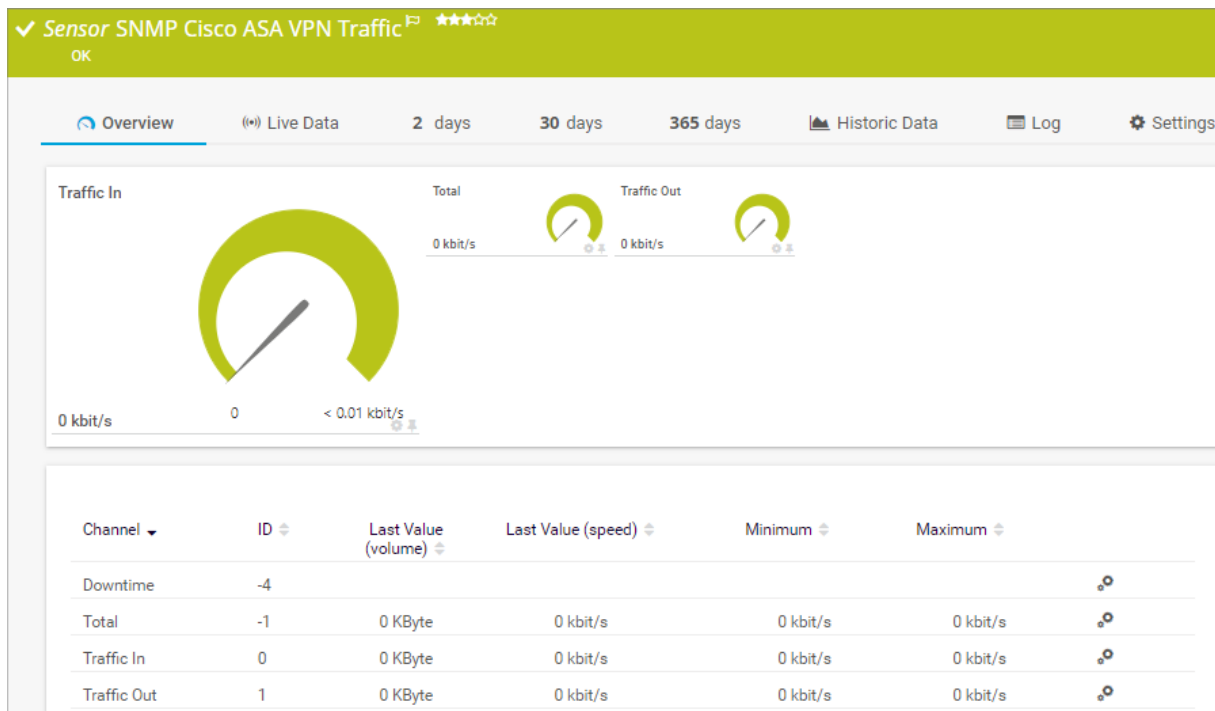
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.143 SNMP Cisco ASA VPN Traffic Sensor

The SNMP Cisco ASA VPN Traffic sensor monitors the traffic of an Internet Protocol Security (IPsec) VPN connection on a Cisco Adaptive Security Appliance via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Cisco ASA VPN Traffic Sensor

Sensor in Other Languages

- Dutch: SNMP Cisco ASA VPN Verkeer
- French: Traffic VPN ASA Cisco SNMP
- German: SNMP Cisco ASA VPN-Datenverkehr
- Japanese: SNMP Cisco ASA VPN トラフィック
- Portuguese: Tráfego VPN SNMP Cisco ASA
- Russian: SNMP Cisco ASA VPN
- Simplified Chinese: SNMP Cisco ASA VPN 流量
- Spanish: Tráfico SNMP Cisco ASA VPN

Remarks

- This sensor can monitor IPsec connections only.
- This sensor is intended to monitor permanent connections. It shows an error if a connection is interrupted.
- This sensor supports the IPv6 protocol.

- This sensor has a low performance impact.
- See the Knowledge Base: [I get the error PE123 when using the SNMP Cisco ASA VPN Traffic sensor. What can I do?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ❗ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

ASA VPN Specific

Setting	Description
Connections	<p>Select the IPsec VPN connections that you want to monitor. PRTG creates one sensor for each IPsec VPN connection that you select.</p> <ul style="list-style-type: none"> ❗ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. ❗ This sensor can only monitor VPN connections based on IPsec. This means, for example, that connections that use Cisco AnyConnect do not appear in this list.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ X +

Priority ⓘ ★★★★★

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpciscoasavpnsensor ▪ snmpciscoasavpntrafficsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

ASA VPN Specific

ASA VPN Specific

Remote IP Address ⓘ 192.0.2.0

Sensor Behavior ⓘ

Show down status if no connection is active (recommended)

Show warning status if no connection is active

Stay in up status if no connection is active

IKE Version Handling ⓘ

IKEv1 (default)

IKEv1 and IKEv2

ASA VPN Specific

Setting	Description
Remote IP Address	<p>Shows the IP address of the connection that this sensor monitors.</p> <p>ⓘ PRTG shows this value for reference purposes only. We strongly recommend that you only change it if the Paessler support team explicitly asks you to do so. Wrong usage can result in incorrect monitoring data.</p> <p>ⓘ This sensor can only monitor VPN connections based on IPsec.</p>
Sensor Behavior	<p>Define the sensor status ¹⁹⁷ if no active connection is available:</p> <ul style="list-style-type: none"> ▪ Show down status if no connection is active (recommended): Set the sensor to the Down status if no connection is active. ▪ Show warning status if no connection is active: Set the sensor to the Warning status if no connection is active. ▪ Stay in up status if no connection is active: Stay in the Up status if no connection is active.
IKE Version Handling	<p>Select the engine for the Internet Key Exchange (IKE) version handling:</p> <ul style="list-style-type: none"> ▪ IKEv1 (default): Select this option if the tunnel on the device uses IKEv1. ▪ IKEv1 and IKEv2: Select this option if the tunnel on the device uses IKEv1 or IKEv2. <p>ⓘ The IKEv1 and IKEv2 option is in beta status and might not work properly.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Credentials for SNMP Devices

Click  to interrupt the [inheritance](#) ¹⁴².

Credentials for SNMP Devices

inherit from Root

SNMP Version ⓘ

v1

v2c (recommended)

v3

Community String ⓘ

SNMP Port ⓘ

Timeout (Sec.) ⓘ

Credentials for SNMP Devices

Setting	Description
SNMP Version	<p>Select the Simple Network Management Protocol (SNMP) version for the connection to the target SNMP device:</p> <ul style="list-style-type: none"> ▪ SNMP v1: Use SNMP v1 for the connection. SNMP v1 only offers clear-text data transmission. <ul style="list-style-type: none"> ⓘ SNMP v1 does not support 64-bit counters. This might result in invalid data when you monitor traffic via SNMP. ▪ SNMP v2c (recommended): Use SNMP v2c for the connection. SNMP v2c also only offers clear-text data transmission but it supports 64-bit counters. ▪ SNMP v3: Use SNMP v3 for the connection. SNMP v3 provides secure authentication and data encryption. <ul style="list-style-type: none"> ⓘ SNMP v3 has performance limitations because of the use of encryption. The main limiting factor is CPU power. Also keep in mind that SNMP v3, unlike SNMP v1 and v2c, does not scale with more CPU power. Because of this limitation, PRTG can only handle a limited number of requests per second so that you can use only a limited number of sensors using SNMP v3. If you see an increase in Interval Delay or Open Requests with the Probe Health sensor^[2083], distribute the load over multiple probes^[4503]. SNMP v1 and SNMP v2c do not have this limitation.
Community String	<p>This setting is only visible if you select SNMP v1 or SNMP v2c above. Enter the community string of your device. This is like a clear-text password for simple authentication.</p> <p> ⓘ We recommend that you use the default value.</p>
Authentication Method	<p>This setting is only visible if you select SNMP v3 above. Select the authentication method:</p> <ul style="list-style-type: none"> ▪ MD5: Use message-digest algorithm 5 (MD5) for authentication. ▪ SHA: Use Secure Hash Algorithm (SHA) for authentication.


Setting	Description
	<p>i If you do not want to use authentication but you need SNMP v3, for example, because your device requires context, you can leave the Password field empty. In this case, PRTG uses SNMP_SEC_LEVEL_NOAUTH and it entirely deactivates authentication.</p> <p>i The authentication method you select must match the authentication method of your device.</p>
User Name	<p>This setting is only visible if you select SNMP v3 above. Enter the user name for access to the target SNMP device.</p> <p>i The user name that you enter must match the user name of your device.</p>
Password	<p>This setting is only visible if you select SNMP v3 above. Enter the password for access to the target SNMP device.</p> <p>i The password that you enter must match the password of your device.</p>
Encryption Type	<p>This setting is only visible if you select SNMP v3 above. Select an encryption type:</p> <ul style="list-style-type: none"> ▪ DES: Use Data Encryption Standard (DES) as the encryption algorithm. ▪ AES: Use Advanced Encryption Standard (AES) as the encryption algorithm. <p>i Net-SNMP does not support AES-192 and AES-256. They do not have RFC specifications.</p> <p>i The encryption type that you select must match the encryption type of your device.</p>
Encryption Key	<p>This setting is only visible if you select SNMP v3 above. Enter an encryption key. If you provide a key, PRTG encrypts SNMP data packets with the encryption algorithm that you selected above. Enter a string or leave the field empty.</p> <p>i The encryption key that you enter must match the encryption key of your device. If the encryption keys do not match, you do not get an error message.</p>
Context Name	<p>This setting is only visible if you select SNMP v3 above. Enter a context name only if the configuration of the device requires it. Context is a collection of management information that is accessible by an SNMP device. Enter a string.</p>
SNMP Port	<p>Enter the port for the connection to the SNMP target device. Enter an integer value. The default port is 161.</p> <p>i We recommend that you use the default value.</p>

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

inherit from  Root

Scanning Interval **i** 60 seconds

If a Sensor Query Fails **i** Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration⁴¹⁸⁷ on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Total	The total traffic in bytes per second
Traffic In	The incoming traffic in bytes per second This channel is the primary channel by default.

Channel	Description
Traffic Out	The outgoing traffic in bytes per second

More

■ KNOWLEDGE BASE

I get the error PE123 when using the SNMP Cisco ASA VPN Traffic sensor. What can I do?

- <https://kb.paessler.com/en/topic/59643>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

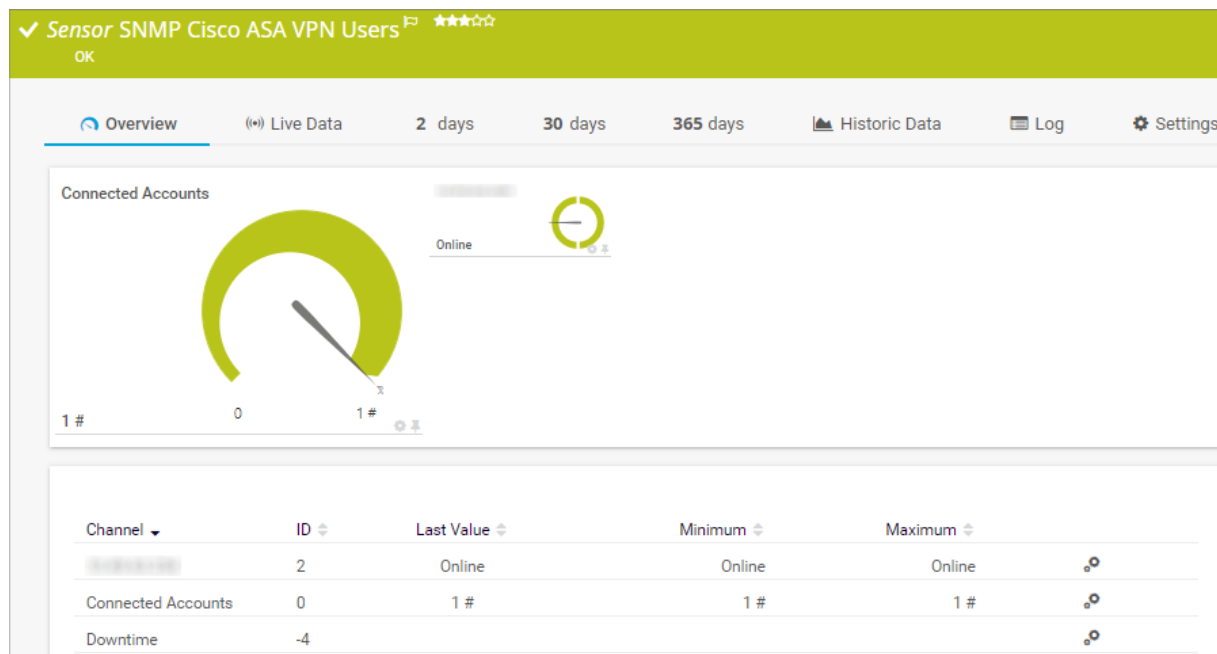
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.144 SNMP Cisco ASA VPN Users Sensor

The SNMP Cisco ASA VPN Users sensor monitors account connections to a VPN on a Cisco Adaptive Security Appliance via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Cisco ASA VPN Users Sensor

Sensor in Other Languages

- Dutch: SNMP Cisco ASA VPN Gebruikers
- French: Utilisateurs Cisco ASA VPN SNMP
- German: SNMP Cisco ASA VPN-Benutzer
- Japanese: SNMP Cisco ASA VPN ユーザー数
- Portuguese: Usuários VPN SNMP Cisco ASA
- Russian: SNMP Cisco ASA VPN
- Simplified Chinese: SNMP Cisco ASA VPN 用户
- Spanish: Usuarios de SNMP Cisco ASA VPN

Remarks

- Do not use this sensor to monitor more than 50 VPN users, especially if they are all connected simultaneously. For more information, see the Knowledge Base: [My SNMP Cisco ASA VPN Users sensor shows a user limit error. Why? What can I do?](#)
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog box. It has a title bar 'Basic Sensor Settings' in blue. Below the title bar, there are three sections: 'Sensor Name' with an information icon and the text 'Example Name'; 'Tags' with an information icon and a text input field containing 'exampletag' and a plus sign; and 'Priority' with an information icon and five star icons, three of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> snmpciscoasavpnsensor snmpciscoasavpntrafficsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display

Sensor Display


Primary Channel **ⓘ** Downtime

Graph Type **ⓘ** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


For more information, see section [Inheritance of Settings](#).

Credentials for SNMP Devices

Click  to interrupt the [inheritance](#).

Credentials for SNMP Devices


 inherit from  Root


SNMP Version 


v1

v2c (recommended)


v3

Community String  public






SNMP Port  161

Timeout (Sec.)  5

Credentials for SNMP Devices

Setting	Description
SNMP Version	<p>Select the Simple Network Management Protocol (SNMP) version for the connection to the target SNMP device:</p> <ul style="list-style-type: none"> ▪ SNMP v1: Use SNMP v1 for the connection. SNMP v1 only offers clear-text data transmission. <ul style="list-style-type: none">  SNMP v1 does not support 64-bit counters. This might result in invalid data when you monitor traffic via SNMP. ▪ SNMP v2c (recommended): Use SNMP v2c for the connection. SNMP v2c also only offers clear-text data transmission but it supports 64-bit counters.

Setting	Description
	<ul style="list-style-type: none"> ▪ SNMP v3: Use SNMP v3 for the connection. SNMP v3 provides secure authentication and data encryption. <ul style="list-style-type: none"> ⓘ SNMP v3 has performance limitations because of the use of encryption. The main limiting factor is CPU power. Also keep in mind that SNMP v3, unlike SNMP v1 and v2c, does not scale with more CPU power. Because of this limitation, PRTG can only handle a limited number of requests per second so that you can use only a limited number of sensors using SNMP v3. If you see an increase in Interval Delay or Open Requests with the Probe Health sensor²⁰⁸³, distribute the load over multiple probes⁴⁵⁰³. SNMP v1 and SNMP v2c do not have this limitation.
Community String	<p>This setting is only visible if you select SNMP v1 or SNMP v2c above. Enter the community string of your device. This is like a clear-text password for simple authentication.</p> <p>ⓘ We recommend that you use the default value.</p>
Authentication Method	<p>This setting is only visible if you select SNMP v3 above. Select the authentication method:</p> <ul style="list-style-type: none"> ▪ MD5: Use message-digest algorithm 5 (MD5) for authentication. ▪ SHA: Use Secure Hash Algorithm (SHA) for authentication. <p>ⓘ If you do not want to use authentication but you need SNMP v3, for example, because your device requires context, you can leave the Password field empty. In this case, PRTG uses SNMP_SEC_LEVEL_NOAUTH and it entirely deactivates authentication.</p> <p>ⓘ The authentication method you select must match the authentication method of your device.</p>
User Name	<p>This setting is only visible if you select SNMP v3 above. Enter the user name for access to the target SNMP device.</p> <p>ⓘ The user name that you enter must match the user name of your device.</p>
Password	<p>This setting is only visible if you select SNMP v3 above. Enter the password for access to the target SNMP device.</p> <p>ⓘ The password that you enter must match the password of your device.</p>
Encryption Type	<p>This setting is only visible if you select SNMP v3 above. Select an encryption type:</p> <ul style="list-style-type: none"> ▪ DES: Use Data Encryption Standard (DES) as the encryption algorithm. ▪ AES: Use Advanced Encryption Standard (AES) as the encryption algorithm.



Setting	Description
	<p> Net-SNMP does not support AES-192 and AES-256. They do not have RFC specifications.</p> <p> The encryption type that you select must match the encryption type of your device.</p>
Encryption Key	<p>This setting is only visible if you select SNMP v3 above. Enter an encryption key. If you provide a key, PRTG encrypts SNMP data packets with the encryption algorithm that you selected above. Enter a string or leave the field empty.</p> <p> The encryption key that you enter must match the encryption key of your device. If the encryption keys do not match, you do not get an error message.</p>
Context Name	<p>This setting is only visible if you select SNMP v3 above. Enter a context name only if the configuration of the device requires it. Context is a collection of management information that is accessible by an SNMP device. Enter a string.</p>
SNMP Port	<p>Enter the port for the connection to the SNMP target device. Enter an integer value. The default port is 161.</p> <p> We recommend that you use the default value.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p> <p> If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds

Setting	Description
	<ul style="list-style-type: none"> ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None


Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

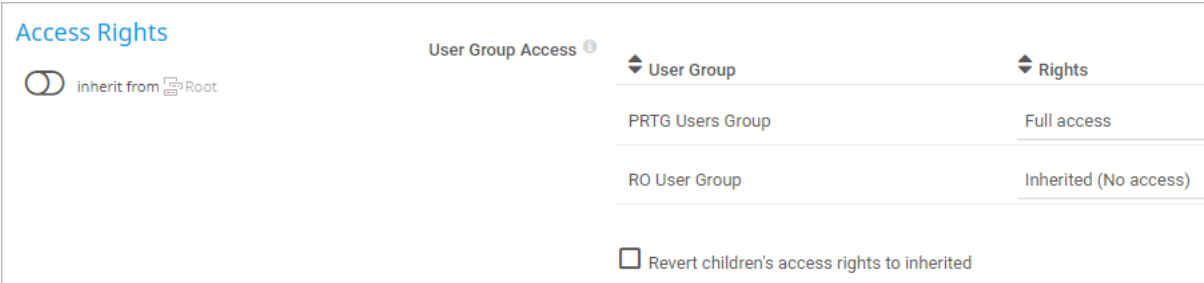
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>


Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].



Access Rights

Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management^[158].</p>

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
[Account]	The account status <ul style="list-style-type: none"> Up status¹⁹⁷; Offline, Online
Connected Accounts	The number of connected accounts <ul style="list-style-type: none"> i This channel is the primary channel by default.
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

More

■ KNOWLEDGE BASE

My SNMP Cisco ASA VPN Users sensor shows a user limit error. Why? What can I do?

- <https://kb.paessler.com/en/topic/64053>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

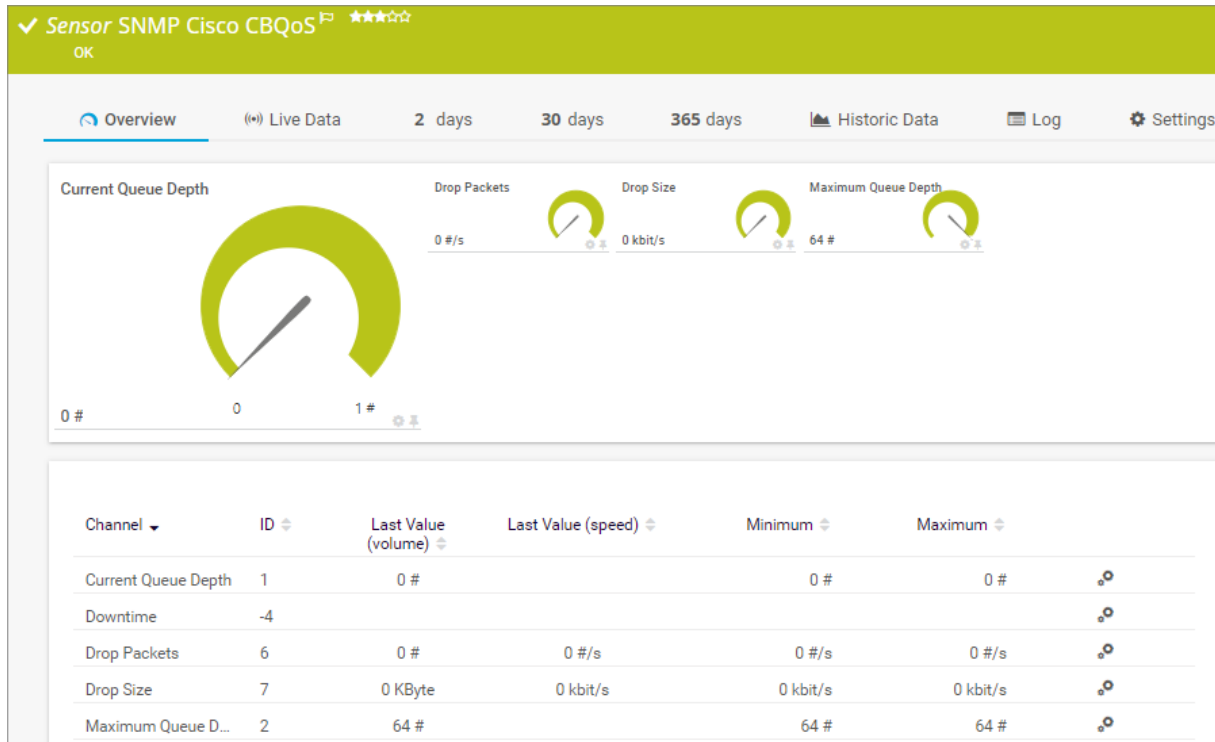
- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.8.145 SNMP Cisco CBQoS Sensor

The SNMP Cisco CBQoS sensor monitors network parameters using Cisco's Class Based Quality of Service (CBQoS) via the Simple Network Management Protocol (SNMP).

i The sensor supports the classes [Class Map](#), [Match Statement](#), and [Queueing](#).

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Cisco CBQoS Sensor

Sensor in Other Languages

- Dutch: SNMP Cisco CBQoS
- French: CBQoS Cisco SNMP
- German: SNMP Cisco CBQoS
- Japanese: SNMP Cisco CBQoS
- Portuguese: CBQoS Cisco de SNMP
- Russian: SNMP Cisco CBQoS
- Simplified Chinese: SNMP Cisco CBQoS
- Spanish: CBQoS de Cisco SNMP

Remarks

- This sensor has a very low performance impact.
- For a general introduction to the technology behind SNMP, see section [Monitoring via SNMP](#).

- For a general introduction to the technology behind Quality of Service (QoS) monitoring, see section [Monitoring Quality of Service](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Class Based QoS Specific

Setting	Description
Entries	<p>Select the entries that you want to monitor. PRTG creates one sensor for each entry that you select.</p> <ul style="list-style-type: none"> ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a blue 'x' to remove it and a '+' to add more.
- Priority:** A row of five stars, with the first three filled, indicating a priority of 3.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <ul style="list-style-type: none"> ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?

Setting	Description
Parent Tags	Shows tags ^[145] that the sensor inherits ^[145] from its parent device ^[140] , parent group ^[139] , and parent probe ^[139] . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145] . ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ cbqossensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Class Based QoS Specific

Class Based QoS Specific	
Object Type ⓘ	Match Statement
Interface ⓘ	Main Interface:1 input
Description ⓘ	Match protocol http
BitMask ⓘ	3
ObjectID ⓘ	145-177-10000
ConfigID ⓘ	177-10000

Class Based QoS Specific

Setting	Description
Object Type	Shows the object type of the parameter that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Interface	Shows the interface of the parameter that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Description	Shows the description of the parameter that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
BitMask	Shows the number of available channels for the parameter that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
ObjectID	Shows the ObjectID of the parameter that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
ConfigID	Shows the ConfigID of the parameter that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display




Sensor Display

Primary Channel **i** Downtime


Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.

Setting	Description
	<p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁸⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval  60 seconds

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds

Setting	Description
	<ul style="list-style-type: none"> ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p>

Setting	Description
	<p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root


Schedule **i** None ▼

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

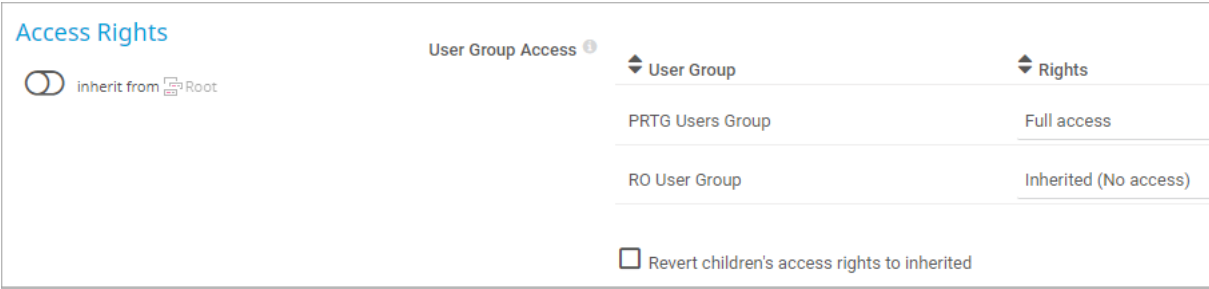
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights

Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Current Queue Depth	The current queue depth
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Drop Packets	The number of drop packets per second
Drop Size	The drop size per second
Maximum Queue Depth	The maximum queue depth
No Buffer Drop Packets	The number of drop packets without buffer per second
Post Policy Size	The post policy size per second
Pre Policy Packets	The number of pre-policy packets per second
Pre Policy Size	The pre-policy size per second

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#) ⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#) ³⁹⁷²

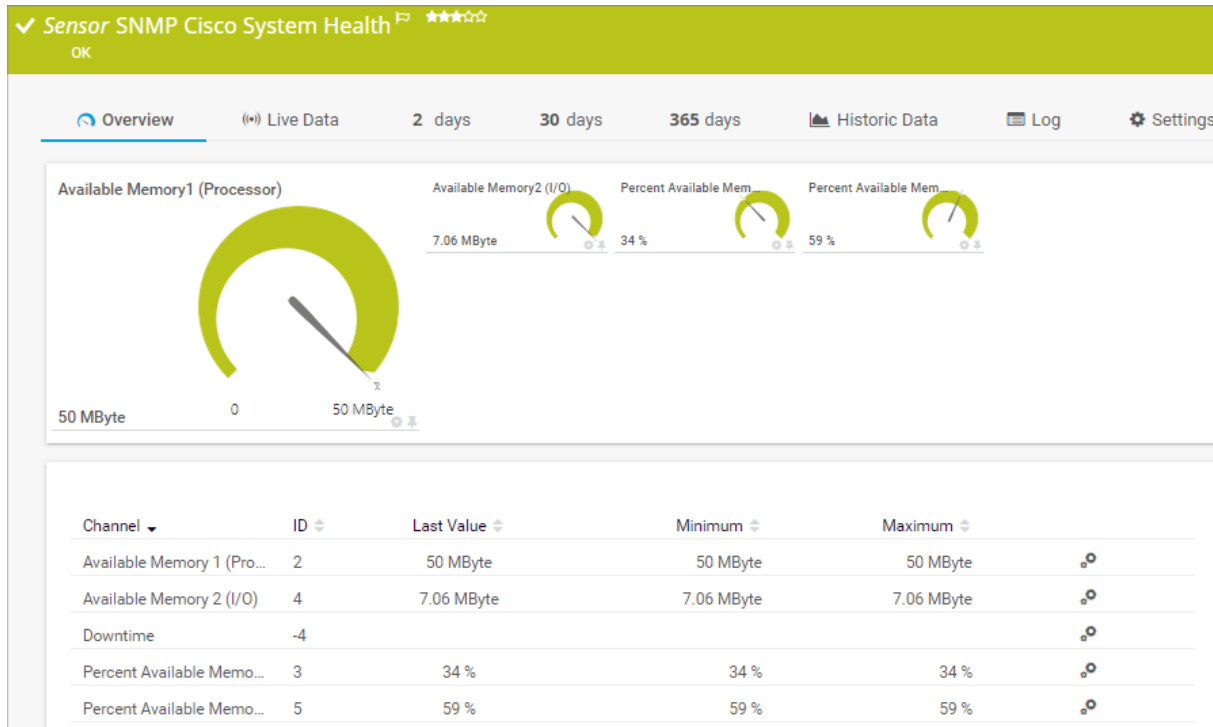
Part 7: Device and Sensor Setup | 8 Sensor Settings
145 SNMP Cisco CBQoS Sensor

- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.146 SNMP Cisco System Health Sensor

The SNMP Cisco System Health sensor monitors the system health of a Cisco device via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Cisco System Health Sensor

Sensor in Other Languages

- Dutch: SNMP Cisco System Health
- French: État du système Cisco SNMP
- German: SNMP Cisco Systemzustand
- Japanese: SNMP Cisco システムの正常性
- Portuguese: Funcionamento do sistema SNMP Cisco
- Russian: SNMP Cisco
- Simplified Chinese: SNMP Cisco 系统健康状况
- Spanish: SNMP Salud de sistema Cisco

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor has predefined limits for several metrics. You can individually change these limits in the channel settings. For detailed information about channel limits, see section [Channel Settings](#).

- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).
- SNMP Cisco System Health sensors that are created with the [Cisco Device \(Generic\)](#) device template for auto-discovery can have additional tags.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Cisco System Health Specific

Setting	Description
Measurements	<p>Select the measurements that you want to monitor. PRTG creates one sensor for each measurement that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a blue 'x' to remove it and a '+' to add more.
- Priority:** A section with five stars, where the first three are filled, indicating a priority of 3.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpciscosystemhealthsensor ▪ systemhealth
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Cisco System Health Specific

Cisco System Health Specific
Measurements **i** 1

Cisco System Health Specific

Setting	Description
Measurements	Shows the ID of the measurement that this sensor monitors.

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options

Result Handling **i**

Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel **i** Downtime


Graph Type **i**

Show channels independently (default)


Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels</p>

Setting	Description
	<p>are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none"> i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval **i** 60 seconds

 inherit from  Root

If a Sensor Query Fails **i** Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds

Setting	Description
	<ul style="list-style-type: none"> ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root






Schedule None


Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies , select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector  to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights


inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

i PRTG creates one sensor per component.

Channel	Description
Available Memory [#]	The available memory in bytes
CPU [#]	The CPU load in percent
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Fan [#] State	<p>The state of fans</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Normal ▪ Warning status: Warning ▪ Down status: Critical, Not Functioning, Shutdown ▪ Unknown status: Not Present
Percent Available Memory [#]	The available memory in percent
Power Supply [#]	<p>The state of power supplies</p> <ul style="list-style-type: none"> ▪ Up status: Normal ▪ Warning status: Warning ▪ Down status: Critical, Not Functioning, Shutdown ▪ Unknown status: Not Present

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²

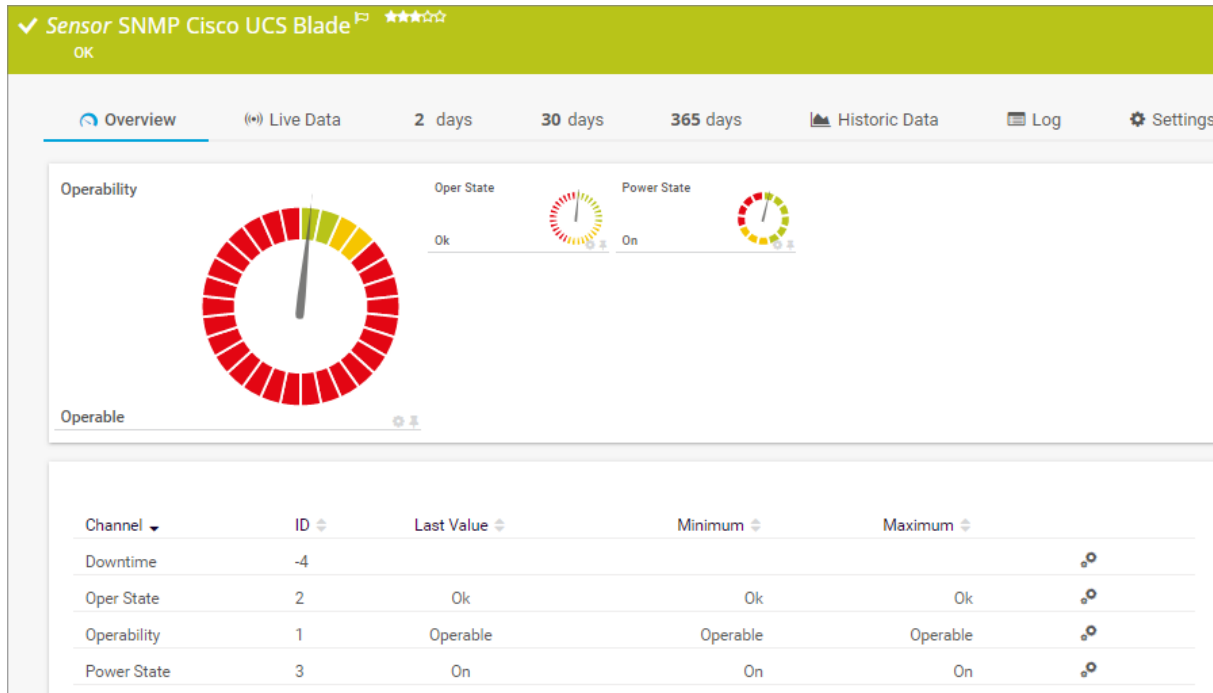
Part 7: Device and Sensor Setup | 8 Sensor Settings
146 SNMP Cisco System Health Sensor

- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.147 SNMP Cisco UCS Blade Sensor

The SNMP Cisco UCS Blade sensor monitors the health status of a Cisco Unified Computing System (UCS) blade server via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Cisco UCS Blade Sensor

Sensor in Other Languages

- Dutch: SNMP Cisco UCS Blade
- French: Serveur Blade Cisco UCS SNMP
- German: SNMP Cisco UCS Blade
- Japanese: SNMP Cisco UCS ブレード
- Portuguese: Blade UCS Cisco SNMP
- Russian: - SNMP Cisco UCS
- Simplified Chinese: SNMP Cisco UCS 刀片
- Spanish: Blade del Cisco UCS del SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Sensor Settings

Setting	Description
Blade Servers	<p>Select the blade servers that you want to monitor. PRTG creates one sensor for each blade server that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name **i**

Example Name

Tags **i**

exampletag ✕ +

Priority **i**

★
★
★
☆
☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited. ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ snmpciscosystemhealthsensor ▪ systemhealth ▪ ucssystemhealth ▪ ucs ▪ blade
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings

- Blade Servers** ⓘ *sys/chassis-1/blade-1*
- Channel Mask** ⓘ *7*
- Model** ⓘ *UCSB-B200-M3*
- Serial Number** ⓘ *XXXXXXXXXXXX*

Sensor Settings

Setting	Description
Blade Servers	Shows the blade server that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Channel Mask	Shows the available channels for the blade server that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Model	Shows the model of the blade server that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Serial Number	Shows the serial number blade server that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display


Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p> <ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic.  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷).

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[402], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[25] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[44] or in its parent group settings ^[41].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Oper State	The oper state

Channel	Description
	<ul style="list-style-type: none"> Up status¹⁹⁷: Config, Diagnostics, Disabled, Discovery, Ok, Pending Reassociation, Pending Reboot, Test, Unconfig Warning status: Bios Restore, CMOS Reset, Decommissioning, Degraded, Maintenance, Power Problem, Restart, Thermal Problem, Voltage Problem Down status: Compute Failed, Compute Mismatch, Config Failure, Diagnostics Failed, Discovery Failed, Inaccessible, Indeterminate, Inoperable, Maintenance Failed, Power Off, Removed, Test Failed, Unassociated, Unconfig Failed
Operability	<p>The operability state</p> <ul style="list-style-type: none"> Up status: Auto Upgrade, Operable Warning status: Degraded, Unknown Down status: Accessibility Problem, Bios Post Timeout, Chassis Limit Exceeded, Config, Decommissioning, Disabled, Equipment Problem, Discovery, Discovery Failed, Fabric Connection Problem, Fabric Unsupported Connection, Identify, Identity Unestablishable, Inoperable, Link Activate Blocked, Malformed Fru, Not Supported, Peer Comm Problem, Performance Problem, Post Failure, Power Problem, Powered Off, Removed, Thermal Problem, Upgrade Problem, Voltage Problem <p> This channel is the primary channel by default.</p>
Power State	<p>The power state</p> <ul style="list-style-type: none"> Up status: Off Duty, Ok, On, Online, Power Save, Test Warning status: Degraded, Not Supported, Unknown Down status: Error, Failed, Off, Offline

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

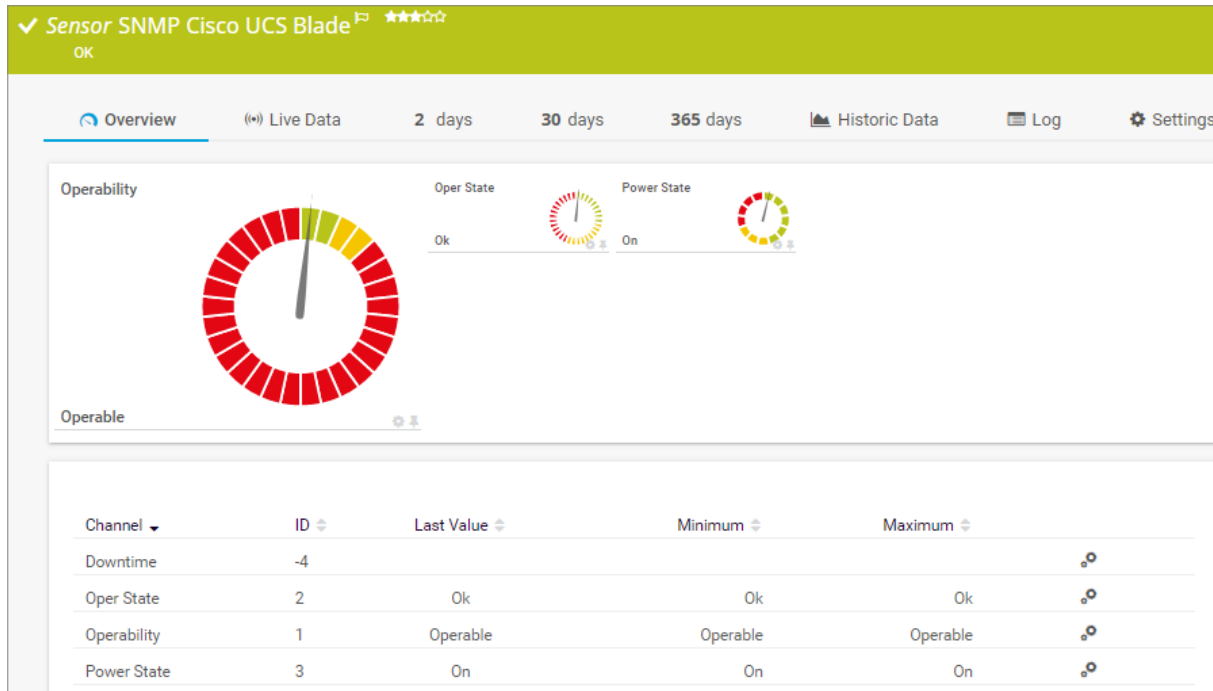
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.148 SNMP Cisco UCS Chassis Sensor

The SNMP Cisco UCS Chassis sensor monitors the health status of the chassis of a Cisco Unified Computing System (UCS) device via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Cisco UCS Chassis Sensor

Sensor in Other Languages

- Dutch: SNMP Cisco UCS Chassis
- French: Châssis SNMP Cisco UCS
- German: SNMP Cisco UCS Chassis
- Japanese: SNMP Cisco UCS シャーシ
- Portuguese: Chassi UCS Cisco SNMP
- Russian: SNMP Cisco UCS
- Simplified Chinese: SNMP Cisco UCS 机箱
- Spanish: Carcasa del Cisco UCS del SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Sensor Settings

Setting	Description
Chassis	<p>Select the chassis that you want to monitor. PRTG creates one sensor for each chassis that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It includes the following elements:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a blue 'x' to remove the tag and a '+' to add more.
- Priority:** A star rating system showing 3 stars selected out of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags ^[145] that the sensor inherits ^[145] from its parent device ^[140] , parent group ^[139] , and parent probe ^[139] . <i>i</i> This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145] . <i>i</i> It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). <i>i</i> For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ snmpciscosystemhealthsensor ▪ systemhealth ▪ ucssystemhealth ▪ ucs ▪ chassis
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings
Chassis *i*
sys/chassis-1

Sensor Settings

Setting	Description
Chassis	Shows the chassis that this sensor monitors.

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>


Sensor Display

Sensor Display


Primary Channel Downtime

Graph Type
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval


Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#)¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Config State	<p>The configuration state</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Acknowledged, Auto Acknowledge, OK ▪ Warning status: Ack in Progress, Evaluation ▪ Down status: Removing, UnAcknowledged, UnInitalized, Unsupported Connectivity
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
License State	<p>The license state</p> <ul style="list-style-type: none"> ▪ Up status: License Ok ▪ Warning status: License Grace Period, Unknown ▪ Down status: License Expired, License Insufficient ▪ Unknown status: Not Applicable
Oper State	<p>The oper state</p> <ul style="list-style-type: none"> ▪ Up status: Auto Upgrade, Operable ▪ Warning status: Degraded, Unknown

Channel	Description
Operability	<ul style="list-style-type: none"> ▪ Down status: Accessibility Problem, Bios Post Timeout, Chassis Limit Exceeded, Config, Decomissioning, Disabled, Equipment Problem, Discovery, Discovery Failed, Fabric Connection Problem, Fabric Unsupported Connection, Identify, Identity Unestablishable, Inoperable, Link Activate Blocked, Malformed Fru, Not Supported, Peer Comm Problem, Performance Problem, Post Failure, Power Problem, Powered Off, Removed, Thermal Problem, Upgrade Problem, Voltage Problem <p>The operability state</p> <ul style="list-style-type: none"> ▪ Up status: Auto Upgrade, Operable ▪ Warning status: Degraded, Unknown ▪ Down status: Accessibility Problem, Bios Post Timeout, Chassis Limit Exceeded, Config, Decomissioning, Disabled, Equipment Problem, Discovery, Discovery Failed, Fabric Connection Problem, Fabric Unsupported Connection, Identify, Identity Unestablishable, Inoperable, Link Activate Blocked, Malformed Fru, Not Supported, Peer Comm Problem, Performance Problem, Post Failure, Power Problem, Powered Off, Removed, Thermal Problem, Upgrade Problem, Voltage Problem <p> This channel is the primary channel by default.</p>
Power State	<p>The power state</p> <ul style="list-style-type: none"> ▪ Up status: Ok ▪ Warning status: Input Degraded, Output Degraded, Redundancy Degraded, Unknown ▪ Down status: Failed, Input Failed, Output Failed, Redundancy Failed
Seeprom State	<p>The serial electrically erasable programmable read-only memory (SEEPROM) state</p> <ul style="list-style-type: none"> ▪ Up status: Auto Upgrade, Operable ▪ Warning status: Degraded, Unknown ▪ Down status: Accessibility Problem, Bios Post Timeout, Chassis Limit Exceeded, Config, Decomissioning, Disabled, Equipment Problem, Discovery, Discovery Failed, Fabric Connection Problem, Fabric Unsupported Connection, Identify, Identity Unestablishable, Inoperable, Link Activate Blocked, Malformed Fru, Not Supported, Peer Comm Problem, Performance Problem, Post Failure, Power Problem, Powered Off, Removed, Thermal Problem, Upgrade Problem, Voltage Problem
Thermal State	<p>The thermal state</p> <ul style="list-style-type: none"> ▪ Up status: Ok ▪ Warning status: Lower Non Critical, Upper Non Critical

Channel	Description
	<ul style="list-style-type: none">▪ Down status: Lower Critical, Lower Non Recoverable, Upper Critical, Upper Non Recoverable▪ Unknown status: Not Supported, Unknown

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

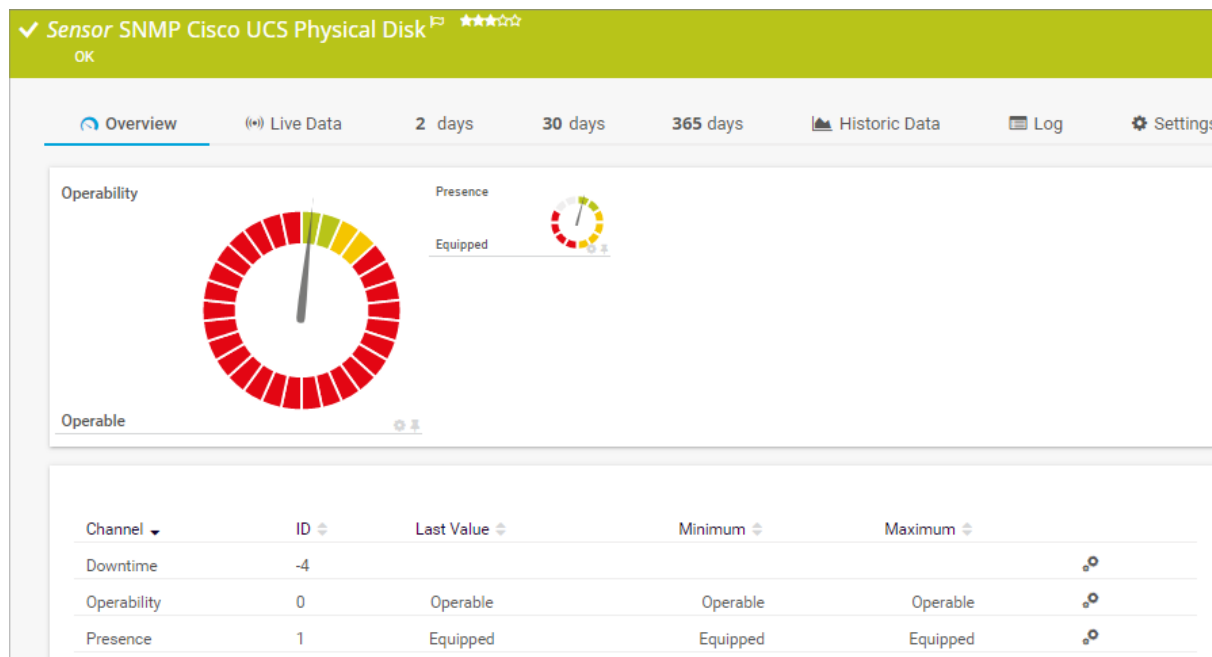
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.149 SNMP Cisco UCS Physical Disk Sensor

The SNMP Cisco UCS Physical Disk sensor monitors a physical disk of a Cisco Unified Computing System (UCS) device via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Cisco UCS Physical Disk Sensor

Sensor in Other Languages

- Dutch: SNMP-Cisco UCS fysieke schijf
- French: Disque physique UCS Cisco SNMP
- German: SNMP Cisco UCS Physikalisches Laufwerk
- Japanese: SNMP Cisco UCS 物理ディスク
- Portuguese: Disco físico de UCS Cisco de SNMP
- Russian: SNMP Cisco UCS
- Simplified Chinese: SNMP Cisco UCS 物理磁盘
- Spanish: Disco físico Cisco UCS de SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

UCS Physical Disk

Setting	Description
Disk	<p>Select the physical disks that you want to monitor. PRTG creates one sensor for each physical disk that you select.</p> <ul style="list-style-type: none"> i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. i This list only shows working disks that have the status Up or Warning.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a blue 'x' to remove it and a '+' to add more.
- Priority:** A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <ul style="list-style-type: none"> i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?

Setting	Description
Parent Tags	Shows tags [145] that the sensor inherits [145] from its parent device [140], parent group [139], and parent probe [139]. <i>i</i> This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited [145]. <i>i</i> It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). <i>i</i> For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ snmpciscophysicaldisksensor ▪ ucs ▪ snmp
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

UCS Physical Disk

UCS Physical Disk

Disk *i* ip:192.168.1.1:162:snmpciscophysicaldisksensor:149:pd-1

Display Name *i* pd-1

UCS Physical Disk

Setting	Description
Disk	Shows the physical disk that this sensor monitors. <i>i</i> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Setting	Description
Display Name	Shows the display name of the physical disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⚙ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None


Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays


Setting	Description
	<ul style="list-style-type: none"> ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency.


Setting	Description
	<ul style="list-style-type: none"> Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies [4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector [251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Operability	<p>The operability status of the disk</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Auto Upgrade, Operable ▪ Warning status: Degraded, Unknown ▪ Down status: Accessibility Problem, Bios Post Timeout, Chassis Limit Exceeded, Config, Decomissioning, Disabled, Equipment Problem, Discovery, Discovery Failed, Fabric Connection Problem, Fabric Unsupported Connection, Identify, Identity Unestablishable, Inoperable, Link Activate Blocked, Malformed Fru, Not Supported, Peer Comm Problem, Performance Problem, Post Failure, Powered Off, Power Problem, Removed, Thermal Problem, Upgrade Problem, Voltage Problem <p>i This channel is the primary channel by default.</p>
Presence	<p>The connection status of the disk</p> <ul style="list-style-type: none"> ▪ Up status: Equipped, Equipped Not Primary ▪ Warning status: Equipped Identity Unestablishable, Mismatch, Mismatch Identity Unestablishable, Missing,

Channel	Description
	<ul style="list-style-type: none">▪ Down status: Equipped With Malformed Fru, Inaccessible, Not Supported, Unauthorized▪ Unknown status: Empty, Unknown

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

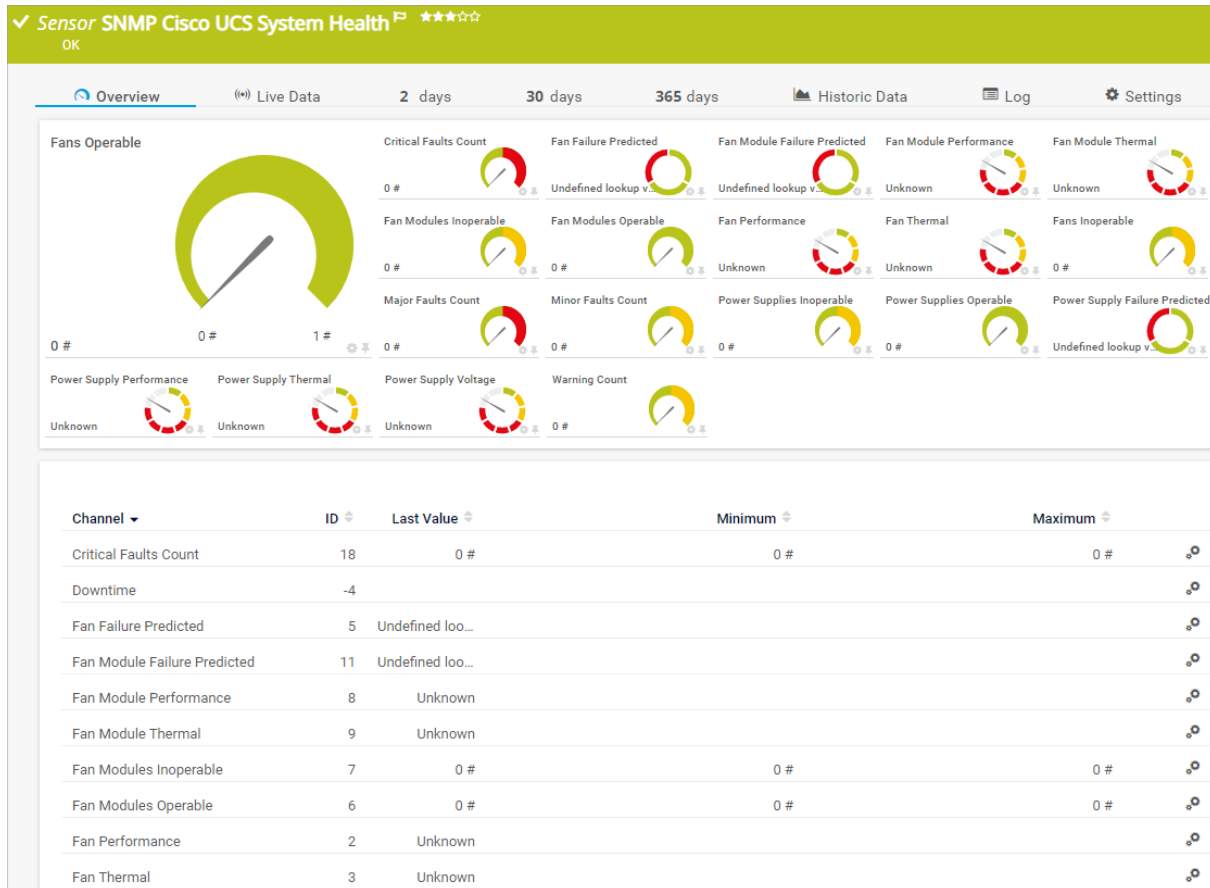
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.150 SNMP Cisco UCS System Health Sensor

The SNMP Cisco UCS System Health sensor monitors the system health of a Cisco Unified Computing System (UCS) device via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Cisco UCS System Health Sensor

Sensor in Other Languages

- Dutch: SNMP Cisco UCS System Health
- French: État du système SNMP Cisco UCS
- German: SNMP Cisco UCS Systemzustand
- Japanese: SNMP Cisco UCS システムの正常性
- Portuguese: Funcionamento do sistema UCS SNMP Cisco
- Russian: SNMP Cisco UCS
- Simplified Chinese: SNMP Cisco UCS 系统健康状况
- Spanish: Estado del sistema Cisco UCS del SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field with the value "Example Name".
- Tags:** A text input field with the value "exampletag" and a plus sign icon to the right.
- Priority:** A section with five star icons, all of which are filled, indicating a priority of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree , as well as in alarms , logs , notifications , reports , maps , libraries , and tickets . ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited .

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> snmpciscosystemhealthsensor systemhealth ucssystemhealth ucs
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display


Sensor Display

Primary Channel **i** Downtime


Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel.

Setting	Description
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p> <ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic.  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷).

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None ▼

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].


Access Rights

inherit from  Root

User Group Access [?]	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management^[153].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#)^[142].

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/ sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration


Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Critical Faults Count	The number of critical faults (that are not yet acknowledged in the UCS logs)

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Fan Failure Predicted	The predicted fan failure status <ul style="list-style-type: none"> Up status¹⁹⁷: No, Not Available Down status: Yes
Fan Module Failure Predicted	The predicted fan module failure status <ul style="list-style-type: none"> Up status: No, Not Available Down status: Yes
Fan Module Performance	The fan module performance status <ul style="list-style-type: none"> Up status: Ok Warning status: Lower Non Critical, Upper Non Critical Down status: Lower Critical, Lower Non Recoverable, Upper Critical, Upper Non Recoverable Unknown status: Not Supported, Unknown
Fan Module Thermal	The fan module thermal status <ul style="list-style-type: none"> Up status: Ok Warning status: Lower Non Critical, Upper Non Critical Down status: Lower Critical, Lower Non Recoverable, Upper Critical, Upper Non Recoverable Unknown status: Not Supported, Unknown
Fan Modules Inoperable	The number of operable fan modules
Fan Modules Operable	The number of inoperable fan modules
Fan Performance	The fan performance <ul style="list-style-type: none"> Up status: Ok Warning status: Lower Non Critical, Upper Non Critical Down status: Lower Critical, Lower Non Recoverable, Upper Critical, Upper Non Recoverable Unknown status: Not Supported, Unknown
Fan Thermal	The fan thermal status

Channel	Description
	<ul style="list-style-type: none"> ▪ Up status: Ok ▪ Warning status: Lower Non Critical, Upper Non Critical ▪ Down status: Lower Critical, Lower Non Recoverable, Upper Critical, Upper Non Recoverable ▪ Unknown status: Not Supported, Unknown
Fans Inoperable	The number of inoperable fan modules
Fans Operable	<p>The number of operable fan modules</p> <p> This channel is the primary channel by default.</p>
Major Faults Count	The number of major faults (that are not yet acknowledged in the UCS logs)
Minor Faults Count	The number of minor faults (that are not yet acknowledged in the UCS logs)
Power Supplies Inoperable	The number of inoperable power supplies
Power Supplies Operable	The number of operable power supplies
Power Supply Failure Predicted	<p>The predicted power supply failure status</p> <ul style="list-style-type: none"> ▪ Up status: No, Not Available ▪ Down status: Yes
Power Supply Performance	<p>The power supply performance</p> <ul style="list-style-type: none"> ▪ Up status: Ok ▪ Warning status: Lower Non Critical, Upper Non Critical ▪ Down status: Lower Critical, Lower Non Recoverable, Upper Critical, Upper Non Recoverable ▪ Unknown status: Not Supported, Unknown
Power Supply Thermal	<p>The power supply thermal status</p> <ul style="list-style-type: none"> ▪ Up status: Ok ▪ Warning status: Lower Non Critical, Upper Non Critical ▪ Down status: Lower Critical, Lower Non Recoverable, Upper Critical, Upper Non Recoverable

Channel	Description
	<ul style="list-style-type: none"> Unknown status: Not Supported, Unknown
Power Supply Voltage	<p>The power supply voltage status</p> <ul style="list-style-type: none"> Up status: Ok Warning status: Lower Non Critical, Upper Non Critical Down status: Lower Critical, Lower Non Recoverable, Upper Critical, Upper Non Recoverable Unknown status: Not Supported, Unknown
Warning Count	The number of warnings (that are not yet acknowledged in the UCS logs)

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

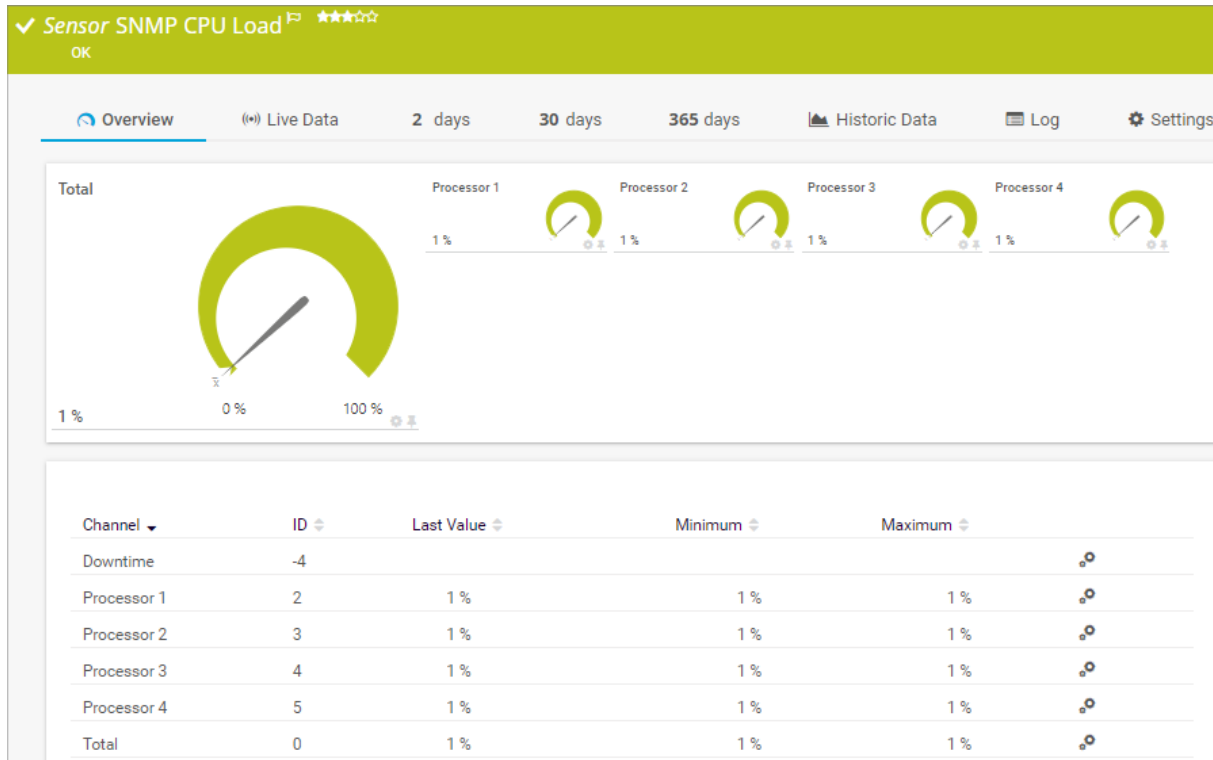
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.151 SNMP CPU Load Sensor

The SNMP CPU Load sensor monitors the system load via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP CPU Load Sensor

Sensor in Other Languages

- Dutch: SNMP CPU Load
- French: Charge CPU SNMP
- German: SNMP Prozessorlast
- Japanese: SNMP CPU の負荷
- Portuguese: Carga da SNMP CPU
- Russian: SNMP
- Simplified Chinese: SNMP CPU 负载
- Spanish: SNMP Carga de CPU

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

- It might not work to query data from a probe device via SNMP (querying `localhost`, `127.0.0.1`, or `:::1`). [Add this device to PRTG](#) with the IP address that it has in your network and create the SNMP sensor on this device instead.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmp ▪ cpu ▪ cpuloadsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.


Debug Options

Debug Options

Result Handling **i**

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory [452b] on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#)¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Processor [#]	The CPU load in percent
Total	<p>The total CPU load in percent</p> <p>i This channel is the primary channel by default.</p>

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

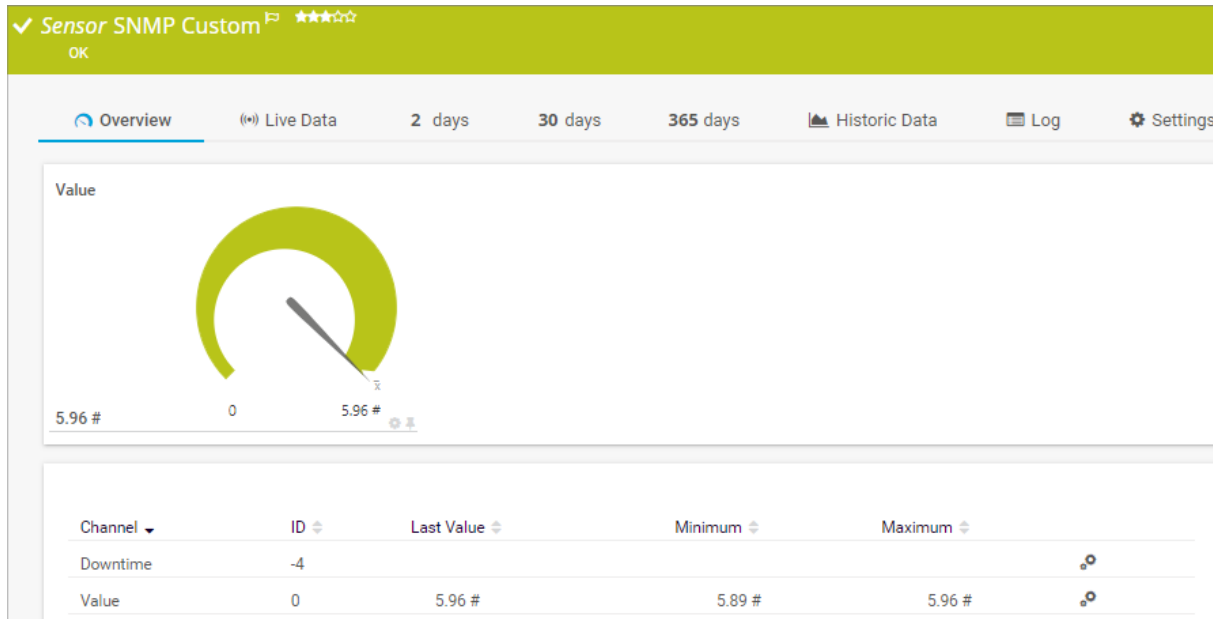
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.152 SNMP Custom Sensor

The SNMP Custom sensor monitors a single parameter that is returned by a specific object identifier (OID) via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Custom Sensor

Sensor in Other Languages

- Dutch: SNMP (Klant specifiek)
- French: SNMP (personnalisé)
- German: SNMP (Benutzerdef.)
- Japanese: SNMP カスタム
- Portuguese: SNMP customizado
- Russian: SNMP
- Simplified Chinese: SNMP 自定义
- Spanish: SNMP personalizado

Remarks

- It might not work to query data from a probe device via SNMP (querying [localhost](#), [127.0.0.1](#), or [::1](#)). [Add this device to PRTG](#) with the IP address that it has in your network and create the SNMP sensor on this device instead.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- See the Knowledge Base: [How do I find out which OID I need for an SNMP Custom sensor?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

OID Settings

Setting	Description
Channel Name	<p>Enter a name for the channel in which the sensor shows the results for the OID. Enter a string.</p> <p>i You can change this value later in the channel settings of this sensor.</p>
Value Type	<p>Select the expected numeric type of the results at the OID:</p> <ul style="list-style-type: none"> ▪ Absolute (unsigned integer): Integer values without an operational sign, such as 10 or 120. ▪ Absolute (signed integer): Integer values with an operational sign, such as -12 or 120. ▪ Absolute (float): Float values, such as -5.80 or 8.23. ▪ Delta (counter): Counter values. PRTG calculates the difference between the last and the current value. PRTG additionally divides the delta value by a time period to indicate a speed value. <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Unit String	<p>Enter the unit for the values that this sensor returns. Enter a string. PRTG uses the unit string for display purposes and shows it in graphs, data tables, and gauges.</p> <p>i If you want to change the unit after sensor creation, you can change it in the sensor's channel settings.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag ✕ +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpcustomsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

OID Settings

OID Settings

OID ⓘ 1.3.6.1.2.1.1.3.0

Value Type ⓘ Absolute (unsigned integer, for example "10", "120")

Multiplication ⓘ 1

Division ⓘ 1

If Value Changes ⓘ Ignore changes
 Trigger 'change' notification

OID Settings

Setting	Description
OID	<p>Enter the OID of the SNMP object that you want to receive numeric data from.</p> <p> ⓘ Most OIDs begin with 1.3.6.1. However, OIDs that start with 1.0, or 1.1, or 1.2 are also allowed. If you want to entirely disable the validation of your entry, add the string norfccheck: to the beginning of the OID, for example, norfccheck:2.0.0.0.1.</p>
Value Type	<p>Shows the value type of the numeric data that this sensor receives from the OID.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Multiplication	<p>If you want to multiply the received data with a certain value, enter the multiplier. Use the default value 1 to not change the received value. Enter an integer value.</p>
Division	<p>If you want to divide the received data by a certain value, enter the divisor. Use the default value 1 to not change the received value. Enter an integer value.</p>
If Value Changes	<p>Define what the sensor does when the sensor value changes:</p> <ul style="list-style-type: none"> ▪ Ignore changes (default): Take no action on change. ▪ Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁶, you can use this mechanism to trigger a notification³⁹⁸⁷ whenever the sensor value changes.

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[402], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management.</p>

Channel List

❗ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	<p>The single numeric value (int64) for a specified OID</p> <p>❗ This channel is the primary channel by default.</p>

More

■ KNOWLEDGE BASE

How do I find out which OID I need for an SNMP Custom sensor?

- <https://kb.paessler.com/en/topic/903>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>





VIDEO TUTORIAL

SNMP Custom sensor and SNMP Custom Library sensor

- <https://www.paessler.com/learn/videos/snmp-custom-and-library-sensor>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

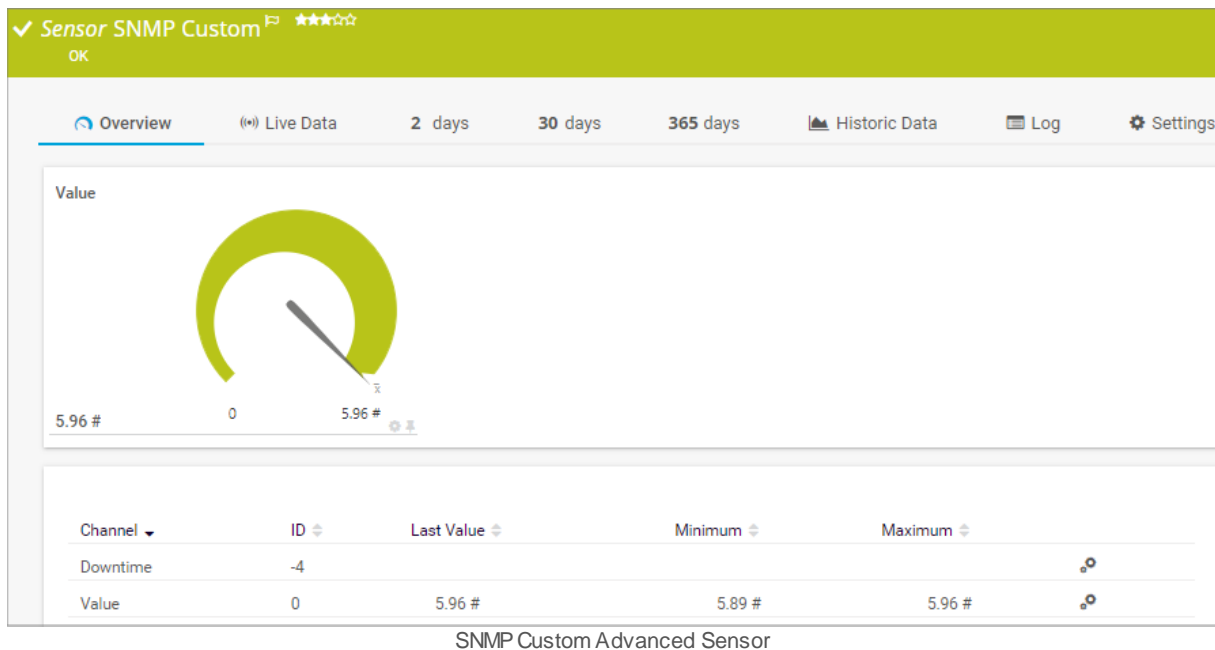
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.153 SNMP Custom Advanced Sensor

The SNMP Custom Advanced sensor monitors numeric values returned for object identifiers (OID) via the Simple Network Management Protocol (SNMP).

i The [SNMP Library sensor](#)²⁷⁹⁷ automatically creates SNMP Custom Advanced sensors when the Management Information Base (MIB) file that you import contains single values.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)²⁴⁷⁴.



Sensor in Other Languages

- Dutch: SNMP Aanpasbaar Geavanceerd
- French: SNMP personnalisé avancé
- German: SNMP (Benutzerdef. erweitert)
- Japanese: SNMP カスタムアドバンスト
- Portuguese: SNMP customizado avançado
- Russian: SNMP
- Simplified Chinese: SNMP 自定义高级
- Spanish: SNMP personalizado avanzado

Remarks

- It might not work to query data from a probe device via SNMP (querying localhost, 127.0.0.1, or ::1). [Add this device to PRTG](#)³⁴⁰ with the IP address that it has in your network and create the SNMP sensor on this device instead.
- This sensor supports the IPv6 protocol.

- This sensor has a low performance impact.
- See the Knowledge Base: [How do I find out which OID I need for an SNMP Custom sensor?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

OID Settings

Setting	Description
Value Type	<p>Select the expected numeric type of the results at the OID:</p> <ul style="list-style-type: none"> ▪ Absolute (unsigned integer): Integer values without an operational sign, such as 10 or 120. ▪ Absolute (signed integer): Integer values with an operational sign, such as -12 or 120. ▪ Absolute (float): Float values, such as -5.80 or 8.23. ▪ Delta (counter): Counter values. PRTG calculates the difference between the last and the current value. PRTG additionally divides the delta value by a time period to indicate a speed value. <p>i Absolute (float) and Delta (Counter) are not compatible with the unit Lookup.</p>
Channel #2 – #10	<p>You can create up to 10 different channels for this sensor. You have to define at least one data channel, so you already see all available settings for Channel #1. Additionally, you can define Channel #2 up to Channel #10. To do so, choose between:</p> <ul style="list-style-type: none"> ▪ Disable: Do not create this channel. ▪ Enable: Create this channel. Define further settings below. <p>i It is not possible to enable or disable channels after sensor creation.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag X +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpcustomsensor ▪ snmpcustomadvanced
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★★★★☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

OID Settings

OID Settings

Channel #1 Name ⓘ 1

Channel #1 OID ⓘ 1.3.6.1.2.1.1.3.0





Channel #1 Value Type ⓘ *Absolute (unsigned integer, for example "10", "120")*

Channel #1 Unit ⓘ Count

Channel #2 ⓘ *Disable*


OID Settings


Setting	Description
Channel #x Name	Enter a name for the channel in which the sensor shows the results at the OID. Enter a string.
Channel #x OID	<p>Enter the OID of the SNMP object from which you want to receive numeric data.</p> <p> ⓘ Most OIDs begin with 1.3.6.1. However, OIDs that start with 1.0, or 1.1, or 1.2 are also allowed. If you want to entirely disable the validation of your entry, add the string norfccheck: to the beginning of the OID, for example, norfccheck:2.0.0.0.1.</p>
Channel #x Value Type	<p>Shows the value type of the numeric data that this sensor receives from the OID.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Channel #x Unit	<p>Define the unit of the numeric data that this sensor receives from the OID:</p> <ul style="list-style-type: none"> ▪ BytesBandwidth ▪ BytesMemory ▪ BytesDisk ▪ Temperature ▪ Percent ▪ TimeResponse ▪ TimeSeconds ▪ TimeHours ▪ Count ▪ CPU

Setting	Description
	<ul style="list-style-type: none"> ▪ BytesFile ▪ SpeedDisk ▪ SpeedNet ▪ Custom ▪ Lookup <p> For more information about the available units, see section Custom Sensors.</p> <p> To use lookups with this channel, select Lookup and define the lookup file in Channel #x Lookup. Do not use Custom if you use lookups with this sensor.</p> <p> You cannot use the unit Lookup if you select the value type Delta (counter) or Absolute (float). You are not able to create the sensor in this case.</p>
Channel #x Custom Unit	This setting is only visible if you select the channel unit Custom above. Define a unit for the channel value. Enter a string.
Channel #x Lookup	This setting is only visible if you select the channel unit Lookup above. Select a lookup file that you want to use with this channel.
Channel #2 – #10	<p>This field shows the option you selected for this channel in the Add Sensor dialog, Enable or Disable.</p> <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p> <p>If you created this channel, you can define the settings of this channel as described above.</p>


Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type 
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval **i** 60 seconds

 inherit from  Root

If a Sensor Query Fails **i** Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root






Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies , select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector  to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access ⓘ


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	The numeric value for a specified OID (up to 10 OIDs are possible) that refers to a specific SNMP device

More

KNOWLEDGE BASE

How do I find out which OID I need for an SNMP Custom sensor?

- <https://kb.paessler.com/en/topic/903>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

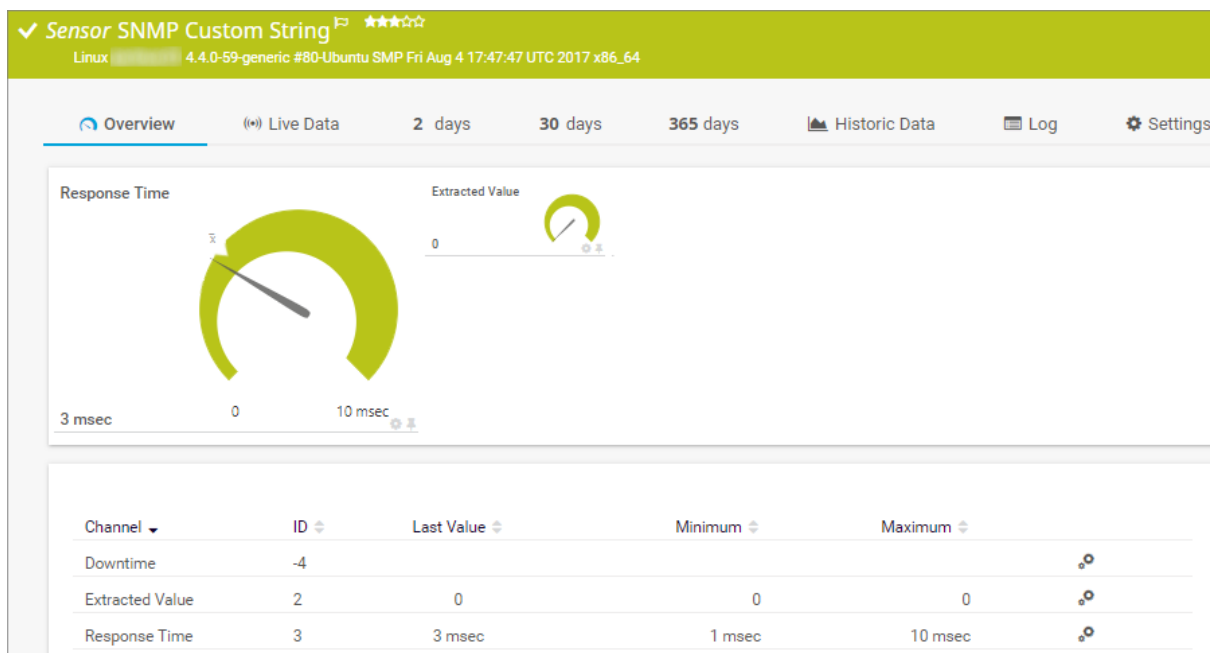
7.8.154 SNMP Custom String Sensor

The SNMP Custom String sensor monitors a string returned by a specific object identifier (OID) via the Simple Network Management Protocol (SNMP). It can check for keywords. If you want to set limits to the channel value, you can also extract a numeric value contained in the string.

i In the sensor message, the sensor shows the string that you [search](#)²⁴⁷⁸ for and the reason for the Warning or Down [status](#)¹⁹⁷¹.

i The [SNMP Library sensor](#)²⁷⁹⁷ automatically creates SNMP Custom String sensors when the Management Information Base (MIB) file that you import contains string values.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)²⁴⁸⁸.



SNMP Custom String Sensor

Sensor in Other Languages

- Dutch: SNMP Aangepaste Tekenreeks
- French: Chaîne personnalisée SNMP
- German: SNMP-Zeichenfolge
- Japanese: SNMP カスタム文字列
- Portuguese: Sequência de caracteres customizada SNMP
- Russian: SNMP:
- Simplified Chinese: SNMP 自定义字符串
- Spanish: Cadena personalizada de SNMP

Remarks

- It might not work to query data from a probe device via SNMP (querying `localhost`, `127.0.0.1`, or `:::1`). [Add this device to PRTG](#) with the IP address that it has in your network and create the SNMP sensor on this device instead.
- For an example, see section [Number Extraction with Regular Expression](#).
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- See the Knowledge Base: [How do I find out which OID I need for an SNMP Custom sensor?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <ul style="list-style-type: none"> i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). i For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpcustomstringsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

OID Settings

OID Settings

OID ⓘ 1.3.6.1.2.1.1.3.0

Maximum Length of String ⓘ

If Value Changes ⓘ

Ignore changes
 Trigger 'change' notification

OID Settings

Setting	Description
OID	<p>Enter the OID of the SNMP object that you want to receive a string from.</p> <ul style="list-style-type: none"> i Most OIDs begin with 1.3.6.1. However, OIDs that start with 1.0, or 1.1, or 1.2 are also allowed. If you want to entirely disable the validation of your entry, add the string norfccheck: to the beginning of the OID, for example, norfccheck:2.0.0.0.1.

Setting	Description
Maximum Length of String	Define the maximum length of the string that PRTG receives from the SNMP object at the OID. If the string is longer than this value, the sensor shows the Down status. Enter an integer value or leave the field empty.
If Value Changes	Define what the sensor does when the sensor value changes: <ul style="list-style-type: none"> Ignore changes (default): Take no action on change. Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁸, you can use this mechanism to trigger a notification³⁹⁸⁷ whenever the sensor value changes.

Keyword Search

Keyword Search

Response Must Include (Down Status If Not Included) ⓘ

Search Method ⓘ Simple string search
 Regular expression

Response Must Not Include (Down Status If Included) ⓘ

Search Method ⓘ Simple string search
 Regular expression











Response Must Include (Warning Status If Not Included) ⓘ

Search Method ⓘ Simple string search
 Regular expression

Response Must Not Include (Warning Status If Included) ⓘ

Search Method ⓘ Simple string search
 Regular expression

Keyword Search

Setting	Description
Response Must Include (Down Status if Not Included)	<p>Define the search string that must be part of the data that PRTG receives from the SNMP object at the OID. You can enter a simple string in plain text or a regular expression (regex)⁴⁴⁹⁷.</p> <ul style="list-style-type: none">  The search string must be case sensitive.  If the data does not include the search pattern, the sensor shows the Down status.
Search Method	<p>Define the method with which you want to provide the search string.</p> <ul style="list-style-type: none"> ▪ Simple string search: Search for a simple string in plain text.  The characters * and ? work as placeholders. * stands for no number or any number of characters and ? stands for exactly one character. You cannot change this behavior. The literal search for these characters is only possible with a regex. ▪ Regular expression: Search with a regex.  PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.
Response Must Not Include (Down Status if Included)	<p>Define the search string that must not be part of the data that PRTG receives from the SNMP object at the OID. You can enter a simple string in plain text or a regex.</p> <ul style="list-style-type: none">  The search string must be case sensitive.  If the data does include the search pattern, the sensor shows the Down status.
Search Method	<p>Define the method with which you want to provide the search string.</p> <ul style="list-style-type: none"> ▪ Simple string search: Search for a simple string in plain text.  The characters * and ? work as placeholders. * stands for no number or any number of characters and ? stands for exactly one character. You cannot change this behavior. The literal search for these characters is only possible with a regex. ▪ Regular expression: Search with a regex.  PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.
Response Must Include (Warning Status If Not Included)	<p>Define the search string that must be part of the data that PRTG receives from the SNMP object at the OID. You can enter a simple string in plain text or a regex.</p> <ul style="list-style-type: none">  The search string must be case sensitive.  If the data does not include the search pattern, the sensor shows the Warning status.

Setting	Description
Search Method	<p>Define the method with which you want to provide the search string.</p> <ul style="list-style-type: none"> Simple string search: Search for a simple string in plain text. <p>i The characters <code>*</code> and <code>?</code> work as placeholders. <code>*</code> stands for no number or any number of characters and <code>?</code> stands for exactly one character. You cannot change this behavior. The literal search for these characters is only possible with a regex.</p> <ul style="list-style-type: none"> Regular expression: Search with a regex. <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p>
Response Must Not Include (Warning Status If Included)	<p>Define the search string that must not be part of the data that PRTG receives from the SNMP object at the OID. You can enter a simple string in plain text or a regex.</p> <p>i The search string must be case sensitive.</p> <p>i If the data does include the search pattern, the sensor shows the Warning status.</p>
Search Method	<p>Define the method with which you want to provide the search string.</p> <ul style="list-style-type: none"> Simple string search: Search for a simple string in plain text. <p>i The characters <code>*</code> and <code>?</code> work as placeholders. <code>*</code> stands for no number or any number of characters and <code>?</code> stands for exactly one character. You cannot change this behavior. The literal search for these characters is only possible with a regex.</p> <ul style="list-style-type: none"> Regular expression: Search with a regex. <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p>

Extended Processing

Extended Processing

Interpret Result As **i**

String (default)

Bytes in hexadecimal notation

Bytes in decimal notation

Numeric Value Extraction **i**

Do not use extraction

Use a regular expression for extraction

Extended Processing

Setting	Description
Interpret Result As	<p>Define the type of the received string:</p> <ul style="list-style-type: none"> ▪ String (default): Handle the result as a common string. ▪ Bytes in hexadecimal notation: Handle the result as bytes in hexadecimal notation. For example, select this option if you monitor MAC addresses. ▪ Bytes in decimal notation: Handle the result as bytes in decimal notation. For example, select this option if you monitor IP addresses.
Numeric Value Extraction	<p>Define if you want to filter out a numeric value from the received string:</p> <ul style="list-style-type: none"> ▪ Do not use extraction: Do not extract a float value. Use the result as a string value. ▪ Use a regular expression for extraction: Use a regular expression (regex) to identify a numeric value in the string and to convert it to a float value to use it, for example, with channel limits. Define below. See also the example²⁴⁸⁷. ■ For more information, see section Channel Settings³⁹⁷⁷.
Regular Expression	<p>This setting is only visible if you select Use a regular expression for extraction above. Enter a regular expression to identify the numeric value that you want to extract from the string returned by the SNMP object at the specified OID. You can use capturing groups.</p> <ul style="list-style-type: none"> i Make sure that the expression only returns numbers, including the decimal and thousands separators. i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.
Index of Capturing Group	<p>This setting is only visible if you select Use a regular expression for extraction above. If your regex uses capturing groups, specify which one captures the number. Enter an integer value or leave the field empty.</p>
Decimal Separator	<p>This setting is only visible if you select Use a regular expression for extraction above. Define the character for the decimal separator of the number. Enter a string or leave the field empty.</p>
Thousands Separator	<p>This setting is only visible if you select Use a regular expression for extraction above. Define the character for the thousands separator of the number. Enter a string or leave the field empty.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule None




Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
Maintenance Window	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p> <p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>For more details on access rights, see section Access Rights Management.</p>

Example: Number Extraction with Regular Expression

If you want to extract a number in the response string via a regex, note that the index for captures in this sensor is based on 1 (not on 0). Furthermore, capturing groups are not automatically created. The example below illustrates this issue.

Consider the following string as returned by a request for CPU usage:

```
5 Sec (3.49%), 1 Min (3.555%), 5 Min (3.90%)
```

Assuming you would like to filter for the number 3.555, this is the percentage in the second parentheses. Enter the following regex in the Regular Expression field:

```
(\d+\.\d+).*?(\d+\.\d+).*?(\d+\.\d+)
```

As Index of Capturing Group, enter 3. This extracts the desired number 3.555.

The index must be 3 in this case because the capturing groups here are the following:


- Group 1 contains 3.49%, 1 Min (3.555), 5 Min (3.90)
- Group 2 contains 3.49
- Group 3 contains 3.555
- Group 4 contains 3.90


Keep this note about index and capturing groups in mind when using number extraction.

It is not possible to match an empty string with the PRTG regex sensor search.

 PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section [Regular Expressions](#)  ⁴⁴⁹⁷.

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Extracted Value	The value extracted from the string (optional)
Response Time	The response time in milliseconds (msec)  This channel is the primary channel by default.

More

KNOWLEDGE BASE

How do I find out which OID I need for an SNMP Custom sensor?

- <https://kb.paessler.com/en/topic/903>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

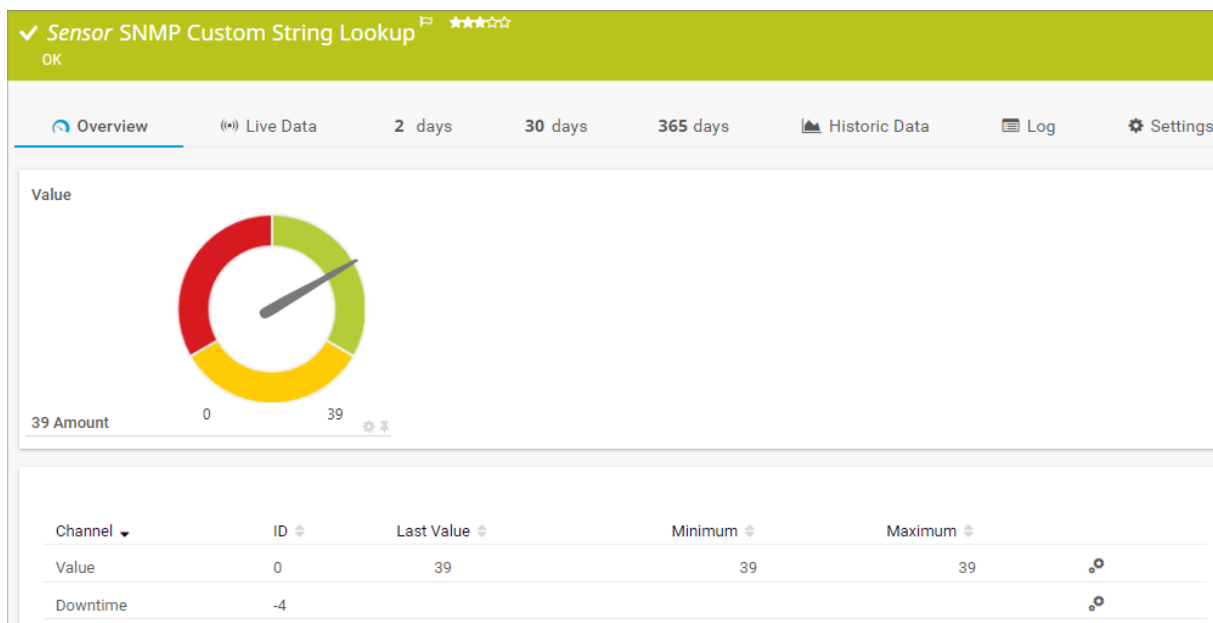
- [List of Available Sensor Types](#)  ⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)  ³⁹⁷²
- [Channel Settings](#)  ³⁹⁷⁷
- [Notification Triggers Settings](#)  ³⁹⁸⁷

7.8.155 SNMP Custom String Lookup Sensor

The SNMP Custom String Lookup sensor monitors a string that a specific object identifier (OID) returns via the Simple Network Management Protocol (SNMP). It can map the string directly to a [sensor status](#) [197] by using a [defined lookup file](#) [4485].

Basically, this sensor does a "reverse lookup". You have to define all potential return strings in the lookup file as text values, each in one lookup entry. Graphs and data tables show the value to which the string is mapped, usually an integer ([lookup type](#) [4493] SingleInt). For more information, see section [Example](#) [2498].

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) [2499].



SNMP Custom String Lookup Sensor

Sensor in Other Languages

- Dutch: SNMP Aangepaste Tekst Lookup
- French: Requête de chaîne personnalisée SNMP
- German: SNMP-Zeichenfolge mit Lookup
- Japanese: SNMP カスタム文字列のルックアップ
- Portuguese: Pesquisa da sequência de caracteres customizada SNMP
- Russian: SNMP
- Simplified Chinese: SNMP 自定义字符串查询
- Spanish: Búsqueda de cadena personalizada de SNMP

Remarks

- It might not work to query data from a probe device via SNMP (querying [localhost](#), [127.0.0.1](#), or [::1](#)). [Add this device to PRTG](#) with the IP address that it has in your network and create the SNMP sensor on this device instead.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).
- See section [Example](#) for a sample lookup definition for this sensor.
- See the Knowledge Base: [How do I find out which OID I need for an SNMP Custom sensor?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

OID Settings

Setting	Description
Channel Name	<p>Enter a name for the channel in which the sensor shows the results for the OID. Enter a string.</p> <p>i You can change this value later in the channel settings of this sensor.</p>
Lookup	<p>Select a lookup file that is available in the \lookups\custom subfolder of the PRTG program directory on the probe system.</p> <p>i The lookup file must contain all potential strings that the OID can return.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag ✕ +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpcustomsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

OID Settings

OID Settings

OID ⓘ 1.3.6.1.2.1.1.3.0

Lookup ⓘ oid.paessler.hplaserjet.jamstatus

If Value Changes ⓘ

Ignore changes
 Trigger 'change' notification

OID Settings

Setting	Description
OID	<p>Enter the OID of the SNMP object that you want to receive a string from.</p> <p>ⓘ Most OIDs begin with 1.3.6.1. However, OIDs that start with 1.0, or 1.1, or 1.2 are also allowed. If you want to entirely disable the validation of your entry, add the string norfccheck: to the beginning of the OID, for example, norfccheck:2.0.0.0.1.</p>
Lookup	<p>Shows the lookup file that this sensor uses.</p> <p>ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
If Value Changes	<p>Define what the sensor does when the sensor value changes:</p> <ul style="list-style-type: none"> ▪ Ignore changes (default): Take no action on change. ▪ Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁸, you can use this mechanism to trigger a notification³⁹⁸⁷ whenever the sensor value changes.

Sensor Display




Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ

Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights


Click  to interrupt the [inheritance](#) [142].



Access Rights

Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Example

 You have to provide all possible return strings for this sensor in one lookup file. For example, consider an OID that can return one of the three strings **Good**, **Deficient**, or **Bad**. Then you have to [define a lookup file](#)⁴⁴⁸⁵ for this sensor that contains all these possible string values as text, each text value in one lookup entry:


```
<?xml version="1.0" encoding="UTF-8"?>
<ValueLookup id="mylookupfile" desiredValue="0"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="PaeValueLookup.xsd">
  <Lookups>
    <SingleInt state="Ok" value="0">
      Good
    </SingleInt>
    <SingleInt state="Warning" value="1">
      Deficient
    </SingleInt>
    <SingleInt state="Error" value="2">
      Bad
    </SingleInt>
  </Lookups>
</ValueLookup>
```

If a retrieved string matches one of the text values, the sensor maps it into the defined integer value ("reverse lookup") that is shown, for example, in data graphs. Depending on the integer, the sensor shows the respective status and converts the integer back to the original string to show it as a channel value. If the OID returns a string that the lookup definition does not contain, the sensor shows the [Down status](#)¹⁹⁷ with a corresponding error message.

For example, you create an SNMP Custom String Lookup sensor, apply the example lookup definition from above (store it into the \lookups\custom subfolder of the PRTG program directory), and the specified OID returns the string **Good**. Then the sensor maps the string **Good** to the integer value **0** that is shown in the live graph of the sensor, for example. According to the status definition `state="Ok"`, the sensor status is Up in this case. The integer **0** is converted back to the string **Good**, which is shown as the channel value.

 The string match is not case sensitive.

 Use the lookup type SingleInt for this sensor. BitFields and ranges are not supported.

 If you [imported an SNMP library](#)²⁸⁰⁷ (this is an `.oidlib` file) that contains [lookups](#)⁴⁴⁸⁵ (you can see this in section Lookup in the MIB Importer), you can define your own sensor states for returning values. Use the lookupname of the imported SNMP library as id parameter in a custom lookup definition. This overrides the lookups that an `.oidlib` file might contain with your own status definitions. See section [Define Lookups](#)⁴⁴⁸¹ for details about this mechanism.

Channel List

- ❗ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	The retrieved string value and its status, as defined in the corresponding lookup file ❗ This channel is the primary channel by default.

More

■ KNOWLEDGE BASE

How do I find out which OID I need for an SNMP Custom sensor?

- <https://kb.paessler.com/en/topic/903>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>





✂ PAESSLER TOOLS

MIB Importer

- <https://www.paessler.com/tools/mibimporter>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

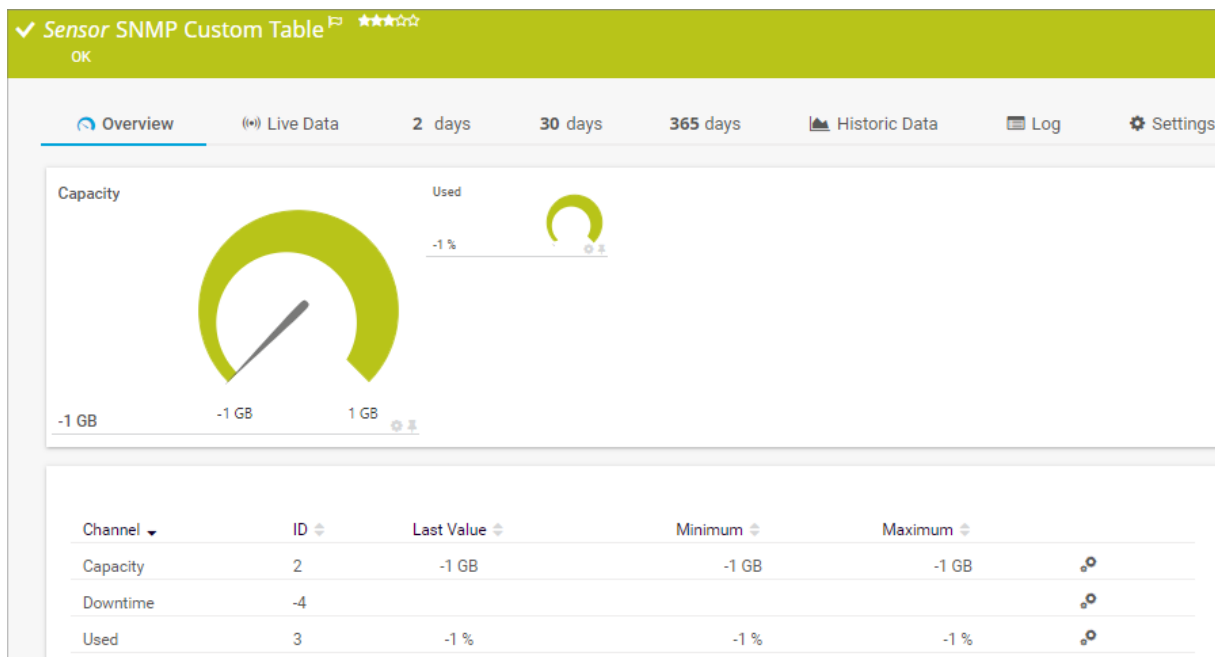
- [List of Available Sensor Types](#) 
- [Additional Sensor Types \(Custom Sensors\)](#) 
- [Channel Settings](#) 
- [Notification Triggers Settings](#) 

7.8.156 SNMP Custom Table Sensor

The SNMP Custom Table sensor monitors entries from a table that is provided via the Simple Network Management Protocol (SNMP). You can create one new sensor per table row. For each sensor, you can define up to ten channels. Each channel shows the value of one defined table column.

i The [SNMP Library sensor](#)²⁷⁹⁷ automatically creates SNMP Custom Table sensors when the Management Information Base (MIB) file that you import contains tables.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)²⁵¹².



SNMP Custom Table Sensor

Sensor in Other Languages

- Dutch: SNMP Aangepaste Tabel
- French: Table SNMP personnalisée
- German: SNMP (Benutzerdef. Tabelle)
- Japanese: SNMP カスタムテーブル
- Portuguese: Tabela customizada do SNMP
- Russian: SNMP
- Simplified Chinese: SNMP 自定义表
- Spanish: Tabla de SNMP personalizado

Remarks

- It might not work to query data from a probe device via SNMP (querying [localhost](#), [127.0.0.1](#), or [::1](#)). [Add this device to PRTG](#)³⁴⁰ with the IP address that it has in your network and create the SNMP sensor on this device instead.

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- See the Knowledge Base: [How do I find out which OID I need for an SNMP Custom sensor?](#)
- See the Knowledge Base: [What can I monitor with the SNMP Custom Table Sensor?](#)

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

SNMP Table

Setting	Description
Table OID	<p>Enter the object identifier (OID) of the SNMP table that you want to monitor. The OID must directly point to an object that represents an SNMP table. PRTG creates one SNMP Custom Table sensor for each table row that you select.</p> <p>i If you do not enter an OID, you cannot proceed with channel creation.</p>

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. You can use the placeholders [tablename] and [rowidentifier]. PRTG replaces them with the name of the table and the identifying value of the chosen row respectively. You can select the column that provides the row identifier in the Identification Column option below.</p> <p>You can also enter a valid OID that is part of a different SNMP table, for example, [1.3.6.1.2.1.2.2.1.2], to query information that the current table does not contain. PRTG adds the same index as in the original table to the OID.</p>

Table Specific

Setting	Description
Table	<p>The sensor shows you the table that the OID returns. Select the table rows that contain the data that you want to monitor. PRTG creates one sensor for each table row that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>
Identification Column	<p>Define the identification column for the sensors that you want to create. The sensors use this column to uniquely identify each table row.</p> <p>i We recommend that you use a unique identification column because it allows the sensors to keep track of changing indexes.</p> <p>i The value of the column that you select as identification column replaces the [rowidentifier] in the sensor name. This lets you distinguish sensors that you create for the same SNMP table.</p>
Channel #2 – #10	<p>You can create up to 10 different channels for this sensor. You have to define at least one data channel, so you already see all available settings for Channel #1. Additionally, you can define Channel #2 up to Channel #10. To do so, choose between:</p> <ul style="list-style-type: none"> ▪ Disable: Do not create this channel. ▪ Enable: Create this channel. Define further settings below. <p>i It is not possible to enable or disable channels after sensor creation.</p> <p>i All channels that you define during the creation of an SNMP Custom Table sensor are the same for all sensors for each table row.</p>
Value Type	<p>Select the expected type of results in this channel:</p> <p>Select the expected numeric type of the results at the OID:</p> <ul style="list-style-type: none"> ▪ Absolute (unsigned integer): Integer values without an operational sign, such as 10 or 120. ▪ Absolute (signed integer): Integer values with an operational sign, such as -12 or 120. ▪ Absolute (float): Float values, such as -5.80 or 8.23. ▪ Delta (counter): Counter values. PRTG calculates the difference between the last and the current value. PRTG additionally divides the delta value by a time period to indicate a speed value. <p>i Absolute (float) and Delta (Counter) are not compatible with the unit Lookup.</p> <p>i See below ²⁵⁰² for other channel settings that you can also change after sensor creation.</p>

Setting	Description
	<p>i This sensor monitors numeric values only. Make sure that you do not select columns that return strings because they lead to the Down status^[197]. For example, if you monitor an ifTable, we recommend that you do not select an ifDescr column because this results in an error.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a title 'Basic Sensor Settings' in blue. Below the title are three settings: 'Sensor Name' with an information icon and the value 'Example Name'; 'Tags' with an information icon and a list containing 'exampletag' with a close button and a plus sign; and 'Priority' with an information icon and five star icons.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpcustomsensor ▪ snmpcustomtable
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SNMP Table

SNMP Table
Table OID **i** 1.3.6.1.2.1.1.3.0

SNMP Table





Setting	Description
Table OID	<p>Shows the OID of the SNMP table that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Table Specific

Table Specific	
Identifier ⓘ	196608
Identification Column ⓘ	table_index
Channel #1 Name ⓘ	CPU Load (1 min average)
Channel #1 Column ⓘ	hrProcessorLoad
Channel #1 Value Type ⓘ	Absolute (signed integer, for example "-12", "120")
Channel #1 Unit ⓘ	Percent
Channel #2 ⓘ	Disable


Table Specific


Setting	Description
Identifier	This is the value of the column that you selected as the Identification Column during sensor creation. PRTG also displays it in the sensor name to distinguish it from other sensors you created for the same table with other table rows. You can change the identifier if you want to.
Identification Column	Shows the table column that you chose as identification column. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Channel #x Name	Enter a name for the channel in which the sensor shows the desired result. Enter a string.
Channel #x Column	Select the table column that, together with the table row, points to the value that you want to monitor in this channel. You can choose between the available columns of the table that you monitor.
Channel #x Value Type	Shows the value type of the data that this sensor receives in this channel. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Channel #x Unit	Define the unit of the data that this sensor receives in this channel: <ul style="list-style-type: none"> ▪ BytesBandwidth ▪ BytesMemory ▪ BytesDisk ▪ Temperature

Setting	Description
	<ul style="list-style-type: none"> ▪ Percent ▪ TimeResponse ▪ TimeSeconds ▪ TimeHours ▪ Count ▪ CPU ▪ BytesFile ▪ SpeedDisk ▪ SpeedNet ▪ Custom ▪ Lookup <p> For more information about the available units, see section Custom Sensors.</p> <p> To use lookups with this channel, select Lookup and define the lookup file in Channel #x Lookup. Do not use Custom if you use lookups with this sensor.</p> <p> You cannot use the unit Lookup if you select the value type Delta (counter) or Absolute (float). You are not able to create the sensor in this case.</p>
Channel #x Custom Unit	This setting is only visible if you select the channel unit Custom above. Define a unit for the channel value. Enter a string.
Channel #x Lookup	This setting is only visible if you select the channel unit Lookup above. Select a lookup file that you want to use with this channel.
Channel #2 – #10	Shows if you enabled or disabled a channel. <p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>




Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type 
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access ⓘ


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel List

-  Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	The numeric values in up to 10 channels per table row

More

KNOWLEDGE BASE

How do I find out which OID I need for an SNMP Custom sensor?

- <https://kb.paessler.com/en/topic/903>

What can I monitor with the SNMP Custom Table sensor?

- <https://kb.paessler.com/en/topic/68539>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?





- <https://kb.paessler.com/en/topic/46863>

Can I monitor UPS systems complying with the UPS MIB (RFC-1628) with PRTG?

- <https://kb.paessler.com/en/topic/72117>

Sensor Settings Overview

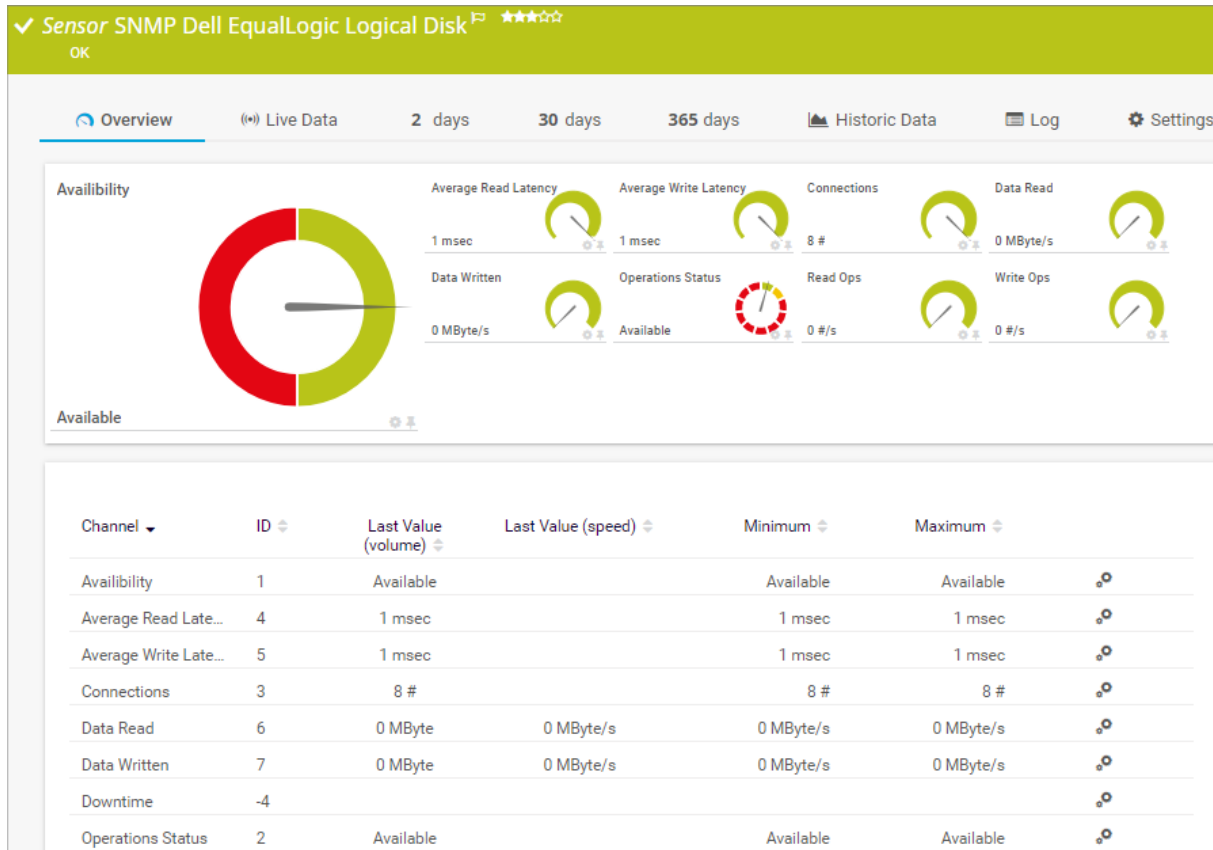
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.157 SNMP Dell EqualLogic Logical Disk Sensor

The SNMP Dell EqualLogic Logical Disk sensor monitors a volume of a Dell EqualLogic storage system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Dell EqualLogic Logical Disk Sensor

Sensor in Other Languages

- Dutch: SNMP Dell EqualLogic Logische Schijf
- French: Disque logique Dell EqualLogic SNMP
- German: SNMP Dell EqualLogic Logischer Datenträger
- Japanese: SNMP Dell EqualLogic 論理ディスク
- Portuguese: Disco lógico SNMP Dell EqualLogic
- Russian: SNMP Dell EqualLogic
- Simplified Chinese: SNMP Dell EqualLogic 逻辑磁盘
- Spanish: Disco lógico SNMP de Dell EqualLogic

Remarks

- This sensor supports the IPv6 protocol.

- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Dell EqualLogic Specific

Setting	Description
Volumes	<p>Select the volumes that you want to monitor. PRTG creates one sensor for each volume that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog with the following fields:

- Sensor Name**: Example Name
- Tags**: exampletag (with a plus sign to add more)
- Priority**: 5 stars (represented by five star icons)

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dellequallogic ▪ snmpdell ▪ dell
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Dell EqualLogic Specific

Dell EqualLogic Specific

Volumes ⓘ Storage eq101/...

Member ID ⓘ ...

Volume ID ⓘ ...

Volume Description ⓘ

Dell EqualLogic Specific

Setting	Description
Volumes	<p>Shows the volume that this sensor monitors.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Member ID	<p>Shows the member ID of the volume that this sensor monitors.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Volume ID	<p>Shows the ID of the volume that this sensor monitors.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Volume Description	<p>Shows the description of the volume that this sensor monitors.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display




Primary Channel ⓘ Downtime

Graph Type ⓘ


Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Availability	<p>The availability status</p> <ul style="list-style-type: none"> Up status¹⁹⁷: Available Down status: Missing Members <p>i This channel is the primary channel by default.</p>
Average Read Latency	The average read latency in milliseconds (msec)
Average Write Latency	The average write latency in msec
Connections	The number of connections
Data Read	The data read speed in bytes per second
Data Written	The data write speed in bytes per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Operations Status	<p>The operations status:</p> <ul style="list-style-type: none"> Up status: Available Warning status: Available But No New Connections Down status: Not Available, Not Available Due To, Not Available Due To Internal Error, Not Available Due To Lost Cached Blocks, Not Available Due To Members Offline, Not Available Due To Missing Pages, Not Available Due To No Space For Auto Grow, Not Available Due To Snap Reserve Met, Not Available Due To Thin Max Growth Met,
Read Ops	The number of disk read operations per second
Write Ops	The number of disk write operations per second

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>





My SNMP sensors don't work. What can I do?

Part 7: Device and Sensor Setup | 8 Sensor Settings
157 SNMP Dell EqualLogic Logical Disk Sensor

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

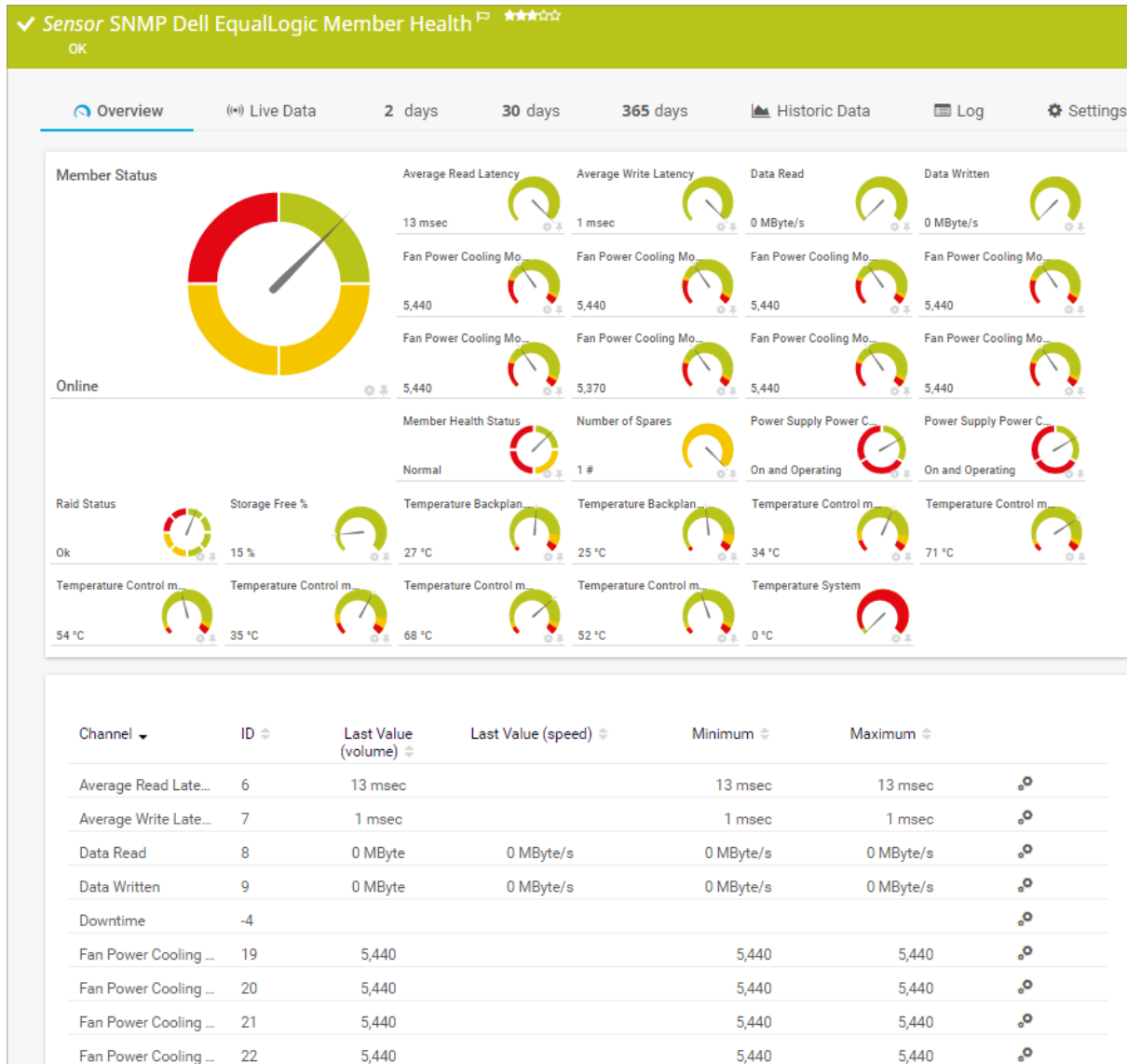
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.158 SNMP Dell EqualLogic Member Health Sensor

The SNMP Dell EqualLogic Member Health sensor monitors the health of an array member of an EqualLogic storage system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Dell EqualLogic Member Health Sensor

Sensor in Other Languages

- Dutch: SNMP Dell EqualLogic Lid Gezondheid
- French: État du membre Dell EqualLogic SNMP
- German: SNMP Dell EqualLogic Member-Zustand
- Japanese: SNMP Dell EqualLogic のメンバー 正常性
- Portuguese: Funcionamento do membro SNMP Dell EqualLogic

- Russian: Dell EqualLogic SNMP
- Simplified Chinese: SNMP Dell EqualLogic 成员健康状况
- Spanish: Salud de miembro SNMP de Dell EqualLogic

Remarks

- This sensor works with [SNMP v2c](#) and [SNMP v3](#). It does not support [SNMP v1](#). Make sure that you set the correct SNMP Version in the Credentials for SNMP Devices settings of the parent device or inherit it from objects higher in the [hierarchy](#).
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ❗ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Dell EqualLogic Specific

Setting	Description
Array Member	<p>Select the array members that you want to monitor. PRTG creates one sensor for each array member that you select.</p> <p>❗ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ exampletag ✕ +

Priority ⓘ ★ ★ ★ ☆ ☆

Example Name

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dellequallogic ▪ snmpdell ▪ dell
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Dell EqualLogic Specific

Dell EqualLogic Specific

Array Member i array-member-1

Group ID i 1

Member ID i 1

Dell EqualLogic Specific

Setting	Description
Array Member	Shows the name of the member this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Group ID	Shows the group ID of the member that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Member ID	Shows the ID of the group member that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display




Sensor Display

Primary Channel i Downtime


Graph Type i Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.

Setting	Description
	<p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval  60 seconds

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds

Setting	Description
	<ul style="list-style-type: none"> ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p>

Setting	Description
	<p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root


Schedule **i** None ▼

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p>

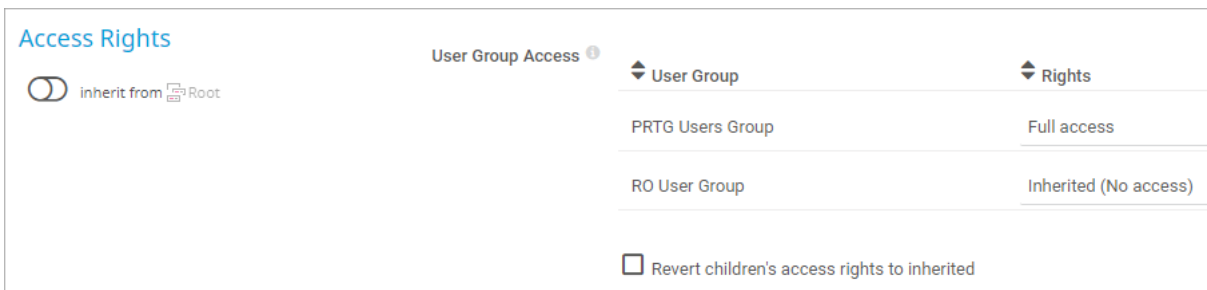
Setting	Description
	<ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ²⁵¹ to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights


inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management^[158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**


Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Average Read Latency	The average read latency in milliseconds (msec)
Average Write Latency	The average write latency in msec
Data Read	The data read speed in bytes per second
Data Written	The data write speed in bytes per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Fan Power Cooling Module [#] Fan [#]	The power of the cooling module fan in revolutions per minute (RPM)
Member Health Status	<p>The member health status:</p> <ul style="list-style-type: none"> ▪ Up status^[197]: Normal ▪ Warning status: Warning ▪ Down status: Critical, Unknown
Member Status	<p>The member status:</p> <ul style="list-style-type: none"> ▪ Up status^[197]: Online ▪ Warning status: Vacated, Vacating ▪ Down status: Offline <p> This channel is the primary channel by default.</p>
Number of Spares	The number of spare drives
Power Supply Power Cooling Module [#]	<p>The status of the power supply cooling module</p> <ul style="list-style-type: none"> ▪ Up status: On and Operating ▪ Down status: Failed or No Data, No AC Power
Raid Status	<p>The RAID status</p> <ul style="list-style-type: none"> ▪ Up status: Expanding, Mirroring, Ok, Verifying ▪ Warning status: Degraded, Reconstructing ▪ Down status: Catastrophic Loss, Failed
Storage Free %	The free storage in percent

Channel	Description
Temperature Control Module [#] [Module]	The control module temperature

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

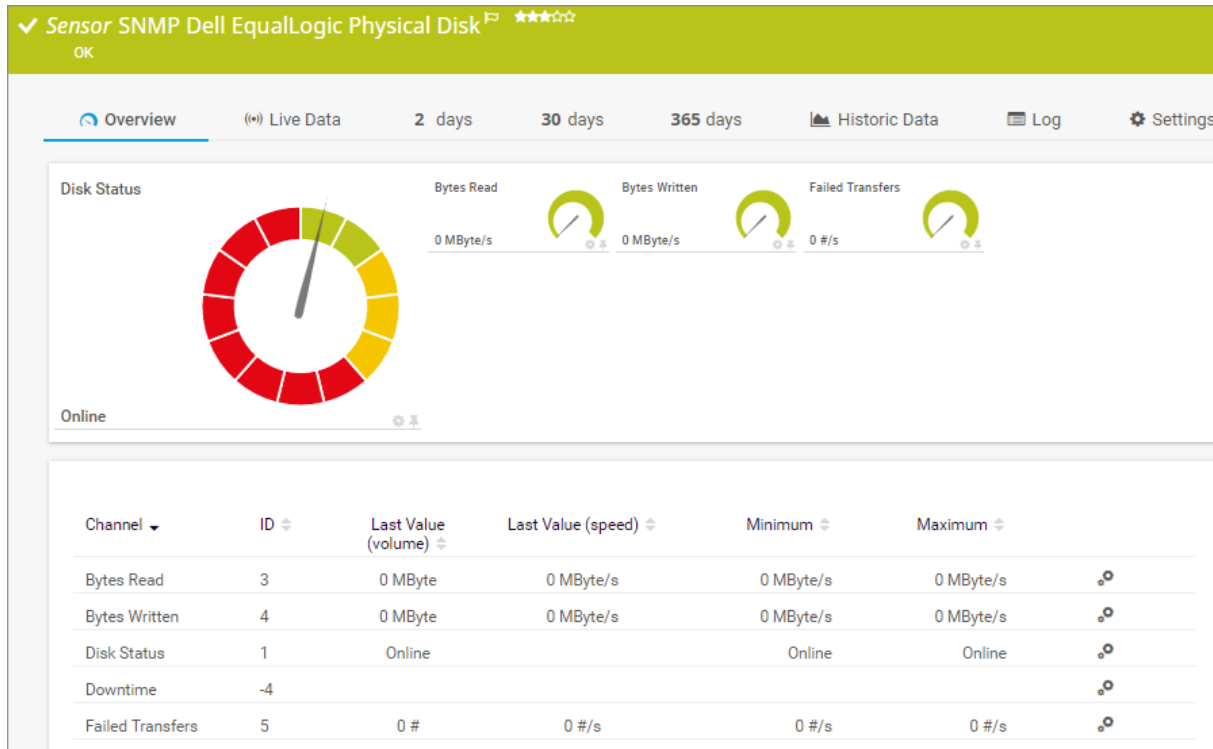
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3957

7.8.159 SNMP Dell EqualLogic Physical Disk Sensor

The SNMP Dell EqualLogic Physical Disk sensor monitors a disk in a Dell EqualLogic storage system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Dell EqualLogic Physical Disk Sensor

Sensor in Other Languages

- Dutch: SNMP Dell EqualLogic Fysieke Schijf
- French: Disque physique Dell EqualLogic SNMP
- German: SNMP Dell EqualLogic Physikalischer Datenträger
- Japanese: SNMP Dell EqualLogic 物理ディスク
- Portuguese: Disco físico SNMP Dell EqualLogic
- Russian: Dell EqualLogic SNMP
- Simplified Chinese: SNMP Dell EqualLogic 物理磁盘
- Spanish: Disco físico SNMP de Dell EqualLogic

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Dell EqualLogic Specific

Setting	Description
Disk	<p>Select the physical disks that you want to monitor. PRTG creates one sensor for each physical disk that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has a title bar 'Basic Sensor Settings'. Below the title bar, there are three rows of settings:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A text input field containing 'exampletag' with a blue 'x' icon to the right and a plus sign icon to the left of the input field.
- Priority**: A row of five star icons, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dellequallogic ▪ snmpdell ▪ dell
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Dell EqualLogic Specific

Dell EqualLogic Specific

Disk ⓘ [Redacted]

Group ID ⓘ 1

Member ID ⓘ [Redacted]

Disk Slot ⓘ 0

Serial Number ⓘ [Redacted]

Manufactured ⓘ [Redacted]

Dell EqualLogic Specific

Setting	Description
Disk	Shows the physical disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Group ID	Shows the group ID of the physical disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Member ID	Shows the group member ID of the physical disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Disk Slot	Shows the slot number of the physical disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Serial Number	Shows the serial number of the physical disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Manufactured	Shows the production date of the physical disk that this sensor monitors. If this field is empty, the physical disk does not provide information about the date (this depends on the manufacturer).

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display

Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click **🔕** under the corresponding setting name to disable the inheritance and to display its options.



■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Bytes Read	The bytes read per second
Bytes Written	The bytes written per second
Disk Status	<p>The health status of the disk</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Online, Spare ▪ Warning status: Alt-Sig, History Of Failures, Replacement ▪ Down status: Encrypted, Failed, Not Approved, Offline, Preempt Failed, Too Small, Unhealthy, Unsupported Version <p>i This channel is the primary channel by default.</p>
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Failed Transfers	The number of failed transfers per second

More

■ KNOWLEDGE BASE

Part 7: Device and Sensor Setup | 8 Sensor Settings
159 SNMP Dell EqualLogic Physical Disk Sensor

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

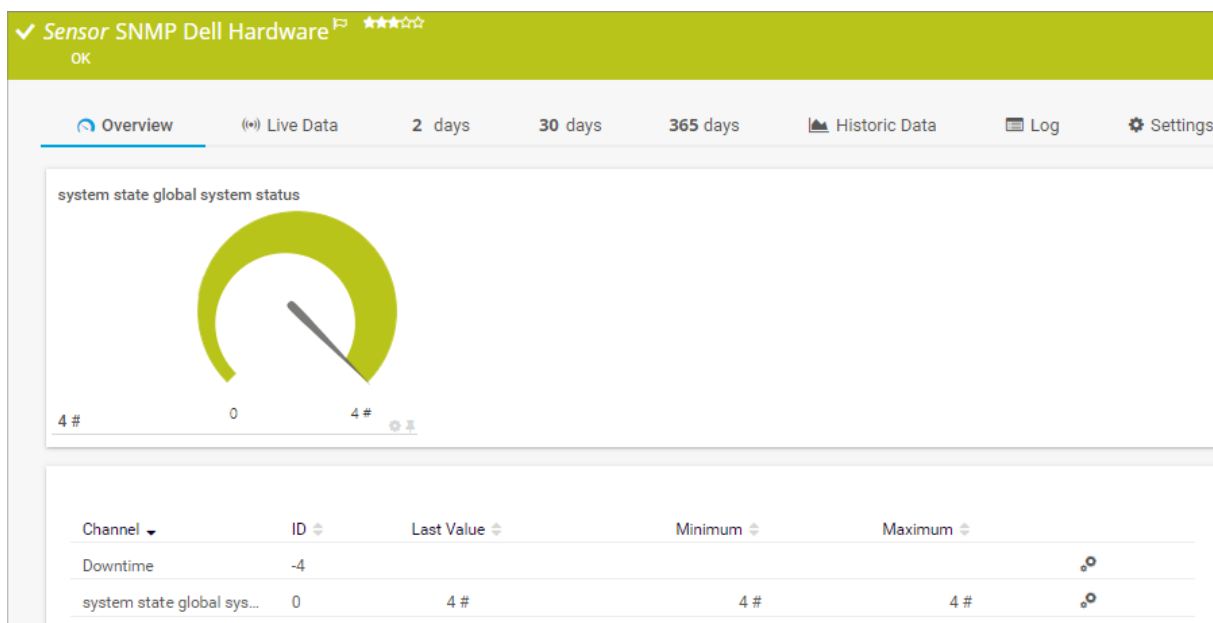
7.8.160 SNMP Dell Hardware Sensor

The SNMP Dell Hardware sensor monitors performance counters on a Dell hardware device via the Simple Network Management Protocol (SNMP).

i The data that you can monitor with this sensor depends on the available performance counters on the target system.

i The SNMP Dell Hardware sensor does not appear as a running sensor, instead it is created as an [SNMP Custom Advanced sensor](#)^[2464] or an [SNMP Custom Table sensor](#)^[2500].

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)^[2557].



SNMP Dell Hardware Sensor

Sensor in Other Languages

- Dutch: SNMP Dell Hardware
- French: Matériels SNMP Dell
- German: SNMP Dell Hardware
- Japanese: SNMP Dell ハードウェア
- Portuguese: Hardware Dell SNMP
- Russian: Dell SNMP
- Simplified Chinese: SNMP Dell 硬件
- Spanish: Hardware SNMP Dell

Remarks

- This sensor [requires](#)^[2550] that the Dell OpenManage Server Administrator is installed on the monitored Dell device.

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- See the Knowledge Base: [What do I need to monitor Dell servers?](#)

Detailed Requirements

Requirement	Description
Dell OpenManage Server Administrator	<p>This sensor needs the Dell OpenManage Server Administrator (OMSA) tool to be installed on the target device to monitor it. Make sure that you enable SNMP in the OMSA.</p> <p>■ For details, see the Knowledge Base: What do I need to monitor Dell servers?</p>

Add Sensor

The [Add Sensor](#)³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Dell Hardware Specific

Setting	Description
Library OIDs	<p>Select the performance counters that you want to monitor. PRTG creates one SNMP Custom Advanced sensor or SNMP Custom Table sensor with up to 10 channels for each library OID category that you select. If your selection results in more than 10 channels, PRTG creates the corresponding amount of SNMP Custom Advanced sensors or SNMP Custom Table sensors.</p> <p>ⓘ Select the counters that you want to monitor with caution. We recommend that you select only a few counters in this dialog. Use the search function in the table header to filter for specific counters. Selecting too many library OIDs might result in thousands of sensors or the sensor creation is canceled.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ dell
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

Dell Hardware Specific

Dell Hardware Specific

Interface ⓘ *MIB-Dell-10892/system state: 1/system state amperage status combined*

Unit String ⓘ #

Multiplication ⓘ 1

Division ⓘ 1

If Value Changes ⓘ Ignore changes
 Trigger 'change' notification

Dell Hardware Specific

Setting	Description
Interface	Shows the name of the interface (performance counter) that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Unit String	Define the unit of the numeric data that the sensor receives at the specified OID. Enter a string.
Multiplication	If you want to multiply the received data with a certain value, enter the multiplier. Enter an integer value.
Division	If you want to divide the received data by a certain value, enter the divisor. Enter an integer value.
If Value Changes	Define what the sensor does when the sensor value changes: <ul style="list-style-type: none"> Ignore changes (default): Take no action on change. Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁸, you can use this mechanism to trigger a notification³⁹⁸⁷ whenever the sensor value changes.




Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².




Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes

Setting	Description
	<ul style="list-style-type: none"> ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>

Setting	Description
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

- Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Performance Counter]	<p>The value returned by a specific Dell hardware object identifier (OID), for example</p> <ul style="list-style-type: none"> ▪ Data about the system management software ▪ Data about system status

Channel	Description
	<ul style="list-style-type: none">▪ Information about chassis and BIOS▪ Various hardware parameters▪ Other valuable data

More

KNOWLEDGE BASE

What do I need to monitor Dell servers?

- <https://kb.paessler.com/en/topic/45333>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

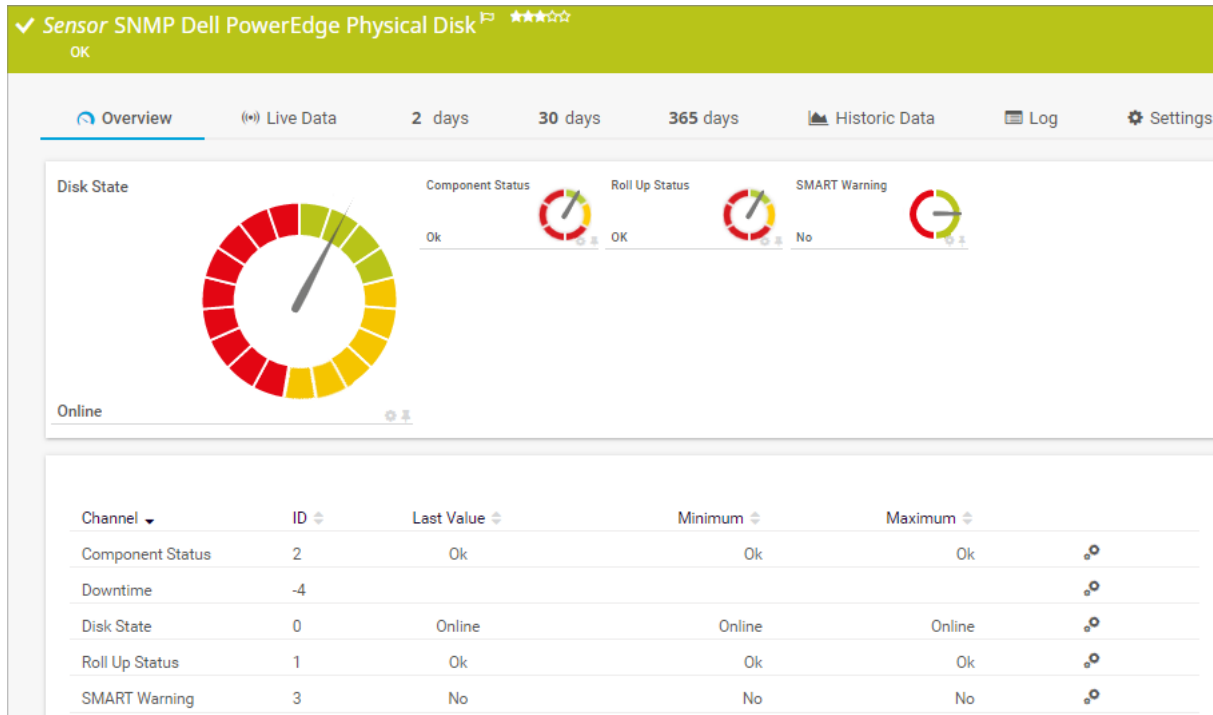
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4981
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3927

7.8.161 SNMP Dell PowerEdge Physical Disk Sensor

The SNMP Dell PowerEdge Physical Disk sensor monitors a physical disk in a Dell PowerEdge server via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Dell PowerEdge Physical Disk Sensor

Sensor in Other Languages

- Dutch: SNMP-Dell PowerEdge Fysieke Schijf
- French: Disque physique Dell PowerEdge SNMP
- German: SNMP Dell PowerEdge Physikalischer Datenträger
- Japanese: SNMP Dell PowerEdge 物理ディスク
- Portuguese: Disco físico SNMP Dell PowerEdge
- Russian: Dell PowerEdge SNMP
- Simplified Chinese: SNMP Dell PowerEdge 物理磁盘
- Spanish: Disco físico SNMP Dell PowerEdge

Remarks

- This sensor [requires](#) that Integrated Dell Remote Access Controller (iDRAC) 7 or the Dell OpenManage Server Administrator (OMSA) are installed on the monitored server.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).
- See the Knowledge Base: [What do I need to monitor Dell servers?](#)
- See the Knowledge Base: [I can't add Dell PowerEdge sensors to PRTG. What can I do?](#)
- See the Knowledge Base: [My Dell PowerEdge sensor fails to validate disks and I can't add it. What can I do?](#)

Detailed Requirements

Requirement	Description
Dell OpenManage Server Administrator or iDRAC 7	<p>This sensor needs the Dell OpenManage Server Administrator (OMSA) tool to be installed on the target device to monitor it. Make sure that you enable SNMP in the OMSA.</p> <ul style="list-style-type: none"> ■ For details, see the Knowledge Base: What do I need to monitor Dell servers? ⓘ You can also monitor Dell PowerEdge servers with this sensor via iDRAC 7.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Dell PowerEdge Physical Disk Settings

Setting	Description
Disk	<p>Select the physical disks that you want to monitor. PRTG creates one sensor for each physical disk that you select.</p> <ul style="list-style-type: none"> ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag X +

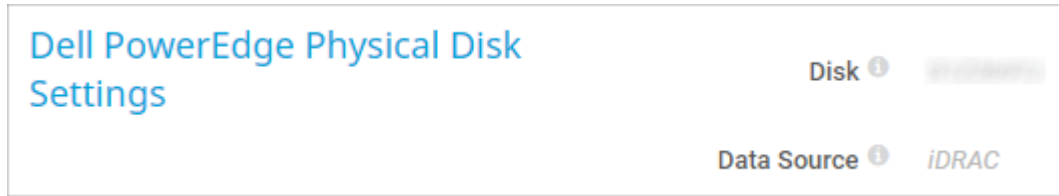
★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpdellphysicaldisksensor ▪ physicaldisk ▪ snmpdell ▪ dell
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★★★★☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Dell PowerEdge Physical Disk Settings



Dell PowerEdge Physical Disk Settings


Setting	Description
Disk	Shows the physical disk that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Data Source	Shows the interface that PRTG uses to get monitoring data. This is either Dell OMSA or iDRAC. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display




Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel.

Setting	Description
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p> <ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic.  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷).

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Component Status	<p>The component status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Ok ▪ Warning status: Non Critical ▪ Down status: Critical, Non Recoverable, Other, Unknown

Channel	Description
Disk State	<p>The disk state</p> <ul style="list-style-type: none"> ▪ Up status: Non-Raid, Online, Ready ▪ Warning status: Foreign ▪ Down status: Blocked, Critical, Failed, Non Recoverable, Other, Removed, Unknown <p> This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Roll Up Status	<p>The roll up status</p> <ul style="list-style-type: none"> ▪ Up status: Ok ▪ Warning status: Non Critical ▪ Down status: Critical, Non Recoverable, Other, Unknown
SMART Warning	<p>The Self-Monitoring, Analysis and Reporting Technology (S.M.A.R.T.) status warning</p> <ul style="list-style-type: none"> ▪ Up status: No ▪ Down status: Yes

More

KNOWLEDGE BASE

What do I need to monitor Dell servers?

- <https://kb.paessler.com/en/topic/45333>

I can't add Dell PowerEdge sensors to PRTG. What can I do?

- <https://kb.paessler.com/en/topic/68040>

My Dell PowerEdge sensor fails to validate disks and I can't add it. What can I do?

- <https://kb.paessler.com/en/topic/61784>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

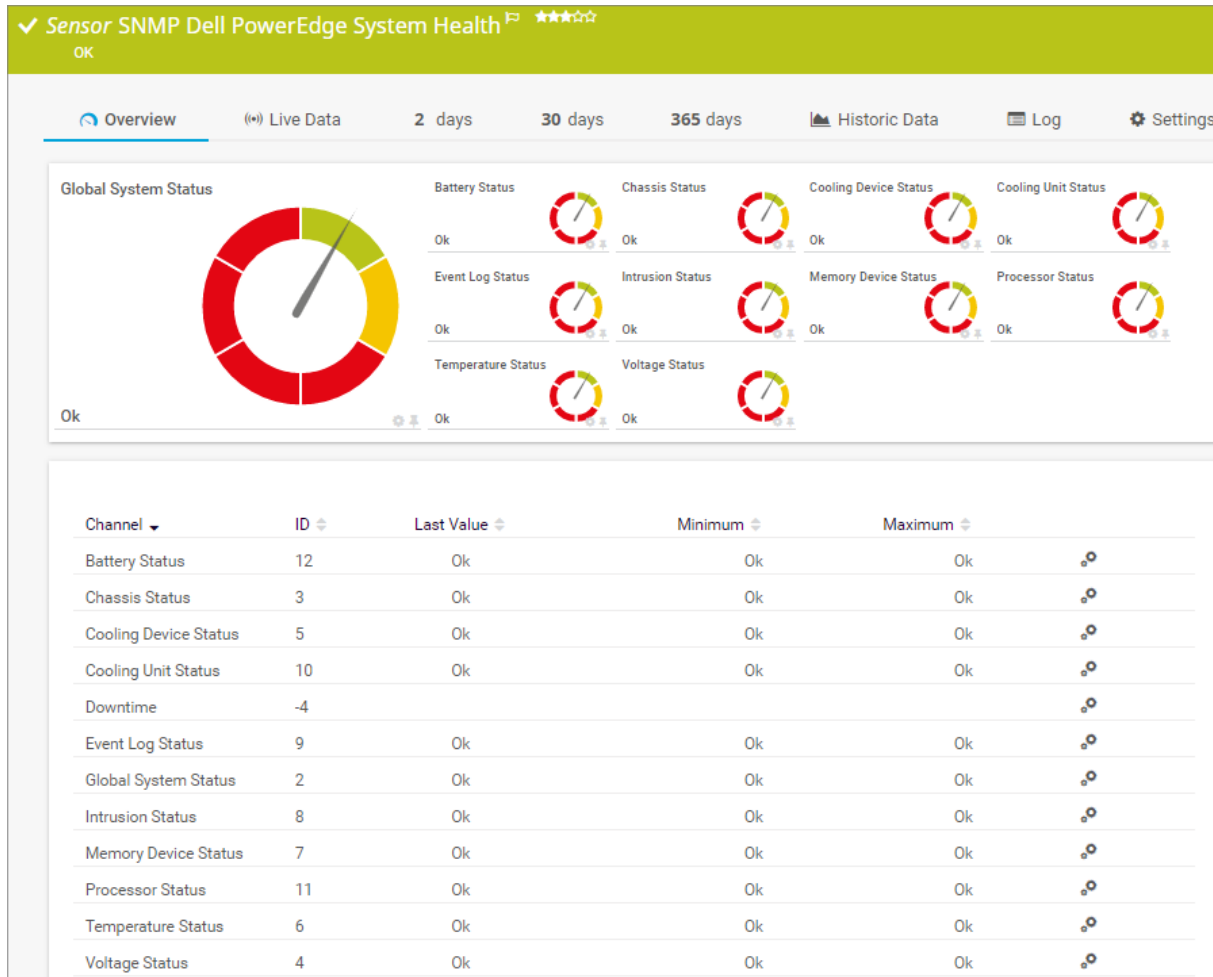
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.162 SNMP Dell PowerEdge System Health Sensor

The SNMP Dell PowerEdge System Health sensor monitors the system health of a Dell PowerEdge server via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Dell PowerEdge System Health Sensor

Sensor in Other Languages

- Dutch: SNMP Dell PowerEdge System Status
- French: État du système Dell PowerEdge SNMP
- German: SNMP Dell PowerEdge Systemzustand
- Japanese: SNMP Dell PowerEdge システムの正常性
- Portuguese: Funcionamento do sistema SNMP Dell PowerEdge
- Russian: Dell PowerEdge SNMP
- Simplified Chinese: SNMP Dell PowerEdge 系统健康状况
- Spanish: SNMP Salud de sistema Dell PowerEdge

Remarks

- This sensor [requires](#) ²⁵⁷² that Integrated Dell Remote Access Controller (iDRAC) 7 or the Dell OpenManage Server Administrator (OMSA) are installed on the monitored server.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor has predefined limits for several metrics. You can individually change these limits in the channel settings. For detailed information about channel limits, see section [Channel Settings](#) ³⁹⁷⁷.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#) ⁴⁴⁸⁵.
- See the Knowledge Base: [Why does my Dell PowerEdge System Health sensor show a power unit status error after iDRAC update?](#)
- See the Knowledge Base: [What do I need to monitor Dell servers?](#)
- See the Knowledge Base: [I can't add Dell PowerEdge sensors to PRTG. What can I do?](#)

Detailed Requirements

Requirement	Description
Dell OpenManage Server Administrator or iDRAC 7	<p>This sensor needs the Dell OpenManage Server Administrator (OMSA) tool to be installed on the target device to monitor it. Make sure that you enable SNMP in the OMSA.</p> <ul style="list-style-type: none"> ■ For details, see the Knowledge Base: What do I need to monitor Dell servers? ⓘ You can also monitor Dell PowerEdge servers with this sensor via iDRAC 7.

Add Sensor

The [Add Sensor](#) ³⁶⁷ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Dell PowerEdge System Health Specific

Setting	Description
Chassis	Select the chassis that you want to monitor. PRTG creates one sensor for each chassis that you select.

Setting	Description
	<p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a title 'Basic Sensor Settings' in blue. Below the title are three settings: 'Sensor Name' with a value of 'Example Name', 'Tags' with a value of 'exampletag' and a plus icon, and 'Priority' with a value of five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpdellssystemhealthsensor ▪ systemhealth ▪ snmpdell ▪ dell
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Dell PowerEdge System Health Specific

Dell PowerEdge System Health Specific

Chassis ⓘ

Channel Mask ⓘ 104959


Data Source ⓘ iDRAC


Dell PowerEdge System Health Specific

Setting	Description
Chassis	<p>Shows the chassis that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Channel Mask	<p>Shows the channel mask that describes which channels are available.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Data Source	<p>Shows the interface that PRTG uses to get monitoring data. This is either Dell OMSA or iDRAC.</p>




Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type  Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#)¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Ampere Status	<p>The ampere status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: OK ▪ Warning status: Non Critical ▪ Down status: Critical, Non Recoverable, Other, Unknown
Battery Status	<p>The battery status</p> <ul style="list-style-type: none"> ▪ Up status: OK ▪ Warning status: Non Critical ▪ Down status: Critical, Non Recoverable, Other, Unknown
Chassis Status	<p>The chassis status</p> <ul style="list-style-type: none"> ▪ Up status: OK ▪ Warning status: Non Critical ▪ Down status: Critical, Non Recoverable, Other, Unknown
Cooling Device Status	<p>The cooling device status</p> <ul style="list-style-type: none"> ▪ Up status: OK ▪ Warning status: Non Critical

Channel	Description
	<ul style="list-style-type: none"> Down status: Critical, Non Recoverable, Other, Unknown
Cooling Unit Status	<p>The cooling unit status</p> <ul style="list-style-type: none"> Up status: OK Warning status: Non Critical Down status: Critical, Non Recoverable, Other, Unknown
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Global System Status	<p>The global system status</p> <ul style="list-style-type: none"> Up status: OK Warning status: Non Critical Down status: Critical, Non Recoverable, Other, Unknown <p> This channel is the primary channel by default.</p>
Intrusion Status	<p>The intrusion status</p> <ul style="list-style-type: none"> Up status: OK Warning status: Non Critical Down status: Critical, Non Recoverable, Other, Unknown
Memory Device Status	<p>The memory device status</p> <ul style="list-style-type: none"> Up status: OK Warning status: Non Critical Down status: Critical, Non Recoverable, Other, Unknown
Power Supply Status	<p>The power supply status</p> <ul style="list-style-type: none"> Up status: OK Warning status: Non Critical Down status: Critical, Non Recoverable, Other, Unknown
Power Unit Status	<p>The power unit status</p> <ul style="list-style-type: none"> Up status: OK Warning status: Non Critical Down status: Critical, Non Recoverable, Other, Unknown

Channel	Description
Processor Status	<p>The processor status</p> <ul style="list-style-type: none"> ▪ Up status: OK ▪ Warning status: Non Critical ▪ Down status: Critical, Non Recoverable, Other, Unknown
Temperature Status	<p>The temperature status</p> <ul style="list-style-type: none"> ▪ Up status: OK ▪ Warning status: Non Critical ▪ Down status: Critical, Non Recoverable, Other, Unknown
Voltage Status	<p>The voltage status</p> <ul style="list-style-type: none"> ▪ Up status: OK ▪ Warning status: Non Critical ▪ Down status: Critical, Non Recoverable, Other, Unknown

More

■ KNOWLEDGE BASE

Why does my Dell PowerEdge System Health sensor show a power unit status error after iDRAC update?

- <https://kb.paessler.com/en/topic/72855>

What do I need to monitor Dell servers?

- <https://kb.paessler.com/en/topic/45333>

I can't add Dell PowerEdge sensors to PRTG. What can I do?

- <https://kb.paessler.com/en/topic/68040>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>





My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

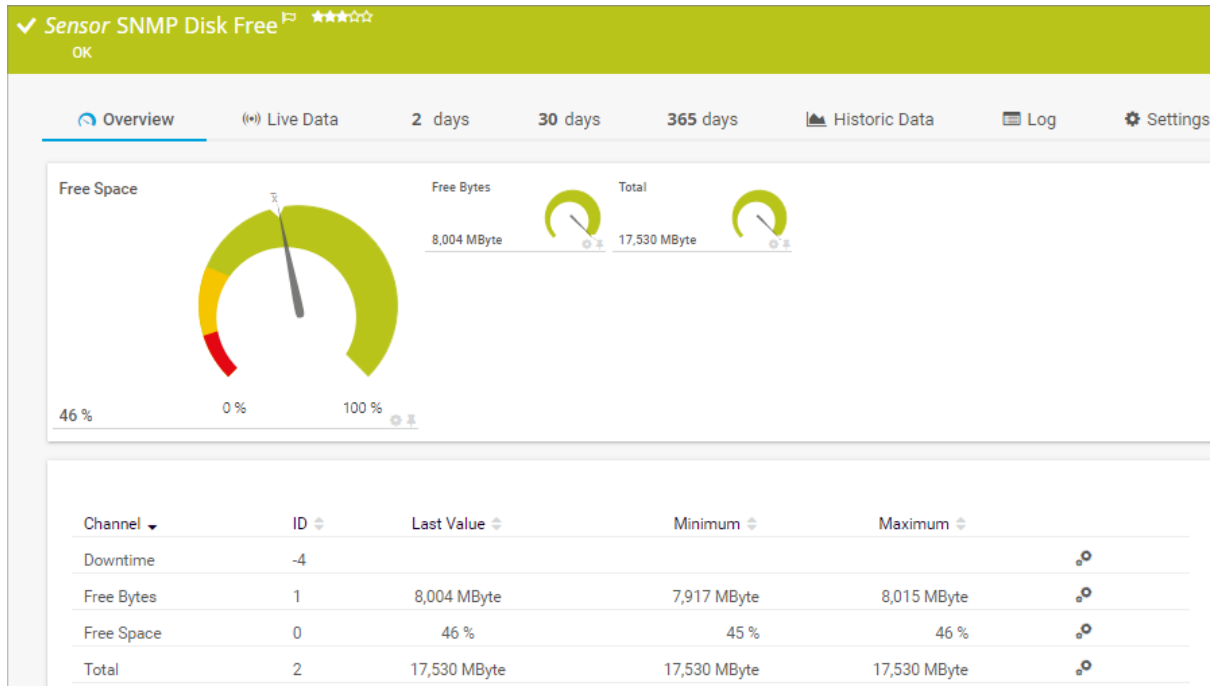
Part 7: Device and Sensor Setup | 8 Sensor Settings
162 SNMP Dell PowerEdge System Health Sensor

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.163 SNMP Disk Free Sensor

The SNMP Disk Free sensor monitors the free disk space on a logical disk via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Disk Free Sensor

Sensor in Other Languages

- Dutch: SNMP vrije schijf ruimte
- French: Espace disque disponible SNMP
- German: SNMP Datenträgerspeicher
- Japanese: SNMP ディスク空き容量
- Portuguese: Disco livre SNMP
- Russian: SNMP
- Simplified Chinese: SNMP 磁盘可用空间
- Spanish: SNMP Disco libre

Remarks

- This sensor uses more generic object identifier (OID) values compared to the [SNMP Linux Disk Free sensor](#).
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

- It might not work to query data from a probe device via SNMP (querying [localhost](#), [127.0.0.1](#), or [::1](#)). [Add this device to PRTG](#) with the IP address that it has in your network and create the SNMP sensor on this device instead.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Disk Free Settings

Setting	Description
Disk	Select the disks that you want to monitor. PRTG creates one sensor for each disk that you select.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections: 'Sensor Name' with the value 'Example Name', 'Tags' with a list containing 'exampletag', and 'Priority' set to 3 stars out of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree , as well as in alarms , logs , notifications , reports , maps , libraries , and tickets . If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe .

Setting	Description
	<p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ¹⁴⁵.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpdiskfreesensor ▪ diskspacesensor ▪ diskfree ▪ snmp
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Disk Free Settings

Disk Free Settings Disk ⓘ C:\ Label:Windows Serial Number 16384/16384

Disk Free Settings

Setting	Description
Disk	<p>Shows the name of the disk that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. We strongly recommend that you only change it if the Paessler support team explicitly asks you to do so. Wrong usage can result in incorrect monitoring data.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click ⓘ to interrupt the [inheritance](#).

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Bytes	The free space in bytes
Free Space	<p>The free space in percent</p> <p>i This channel is the primary channel by default.</p>
Total	The total space in bytes

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

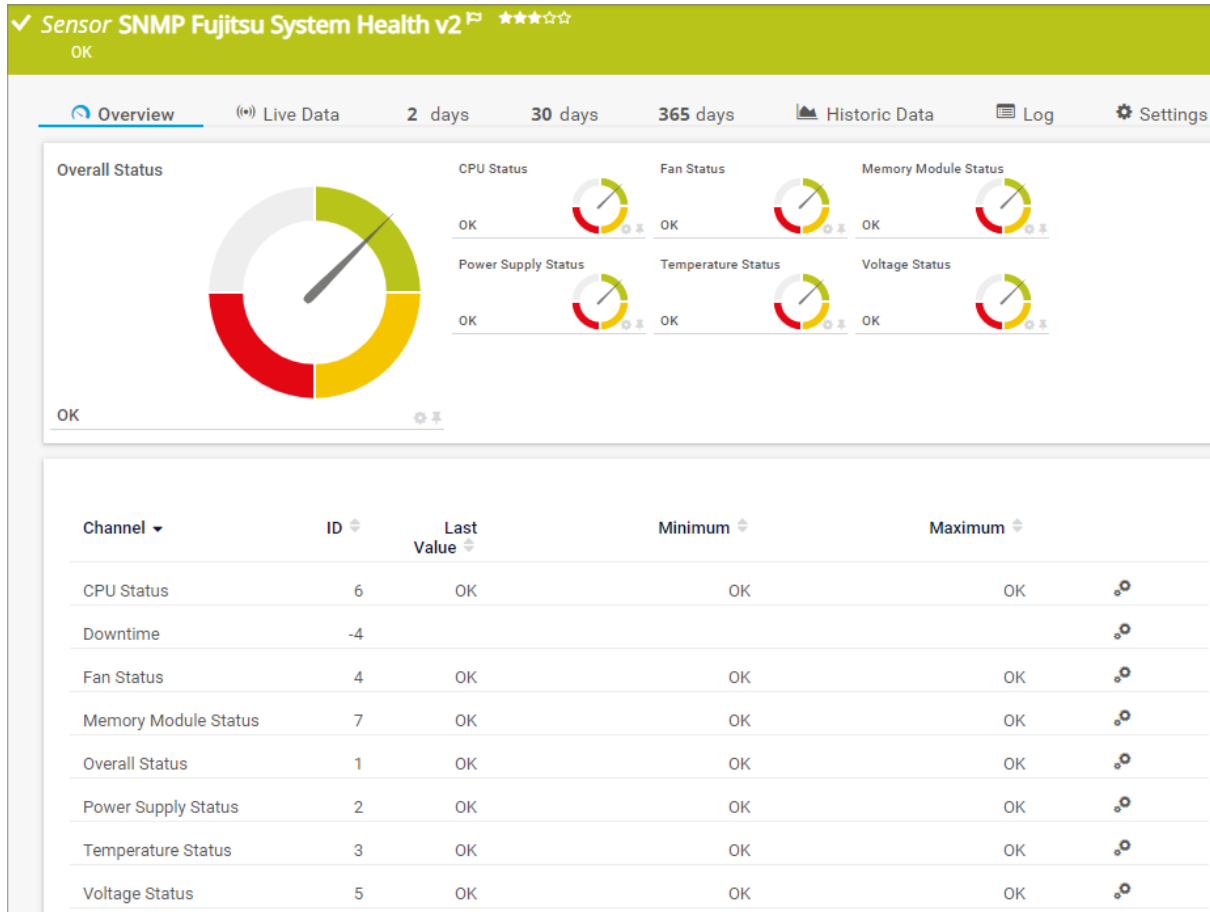
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.164 SNMP Fujitsu System Health v2 Sensor

The SNMP Fujitsu System Health v2 sensor monitors the status of a Fujitsu PRIMERGY server via the integrated Remote Management Controller (iRMC) and Simple Network Management Protocol (SNMP). The sensor might also work on other Fujitsu devices that have an iRMC available like PRIMEQUEST servers, some storage systems of the ETERNUS product line, and CELSIUS workstations in racks.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Fujitsu System Health v2 Sensor

Sensor in Other Languages

- Dutch: SNMP Fujitsu System Health v2
- French: SNMP Santé du système Fujitsu v2
- German: SNMP Fujitsu Systemzustand v2
- Japanese: SNMP Fujitsu システム正常性 v2
- Portuguese: Funcionamento do sistema Fujitsu SNMP v2
- Russian: Fujitsu SNMP, 2
- Simplified Chinese: SNMP Fujitsu 系统运行状况版本 2
- Spanish: Salud del sistema Fujitsu con SNMP v2

Remarks

- Use an iRMC interface as parent device for this sensor.
- Make sure that you enable SNMP in the iRMC via ServerView.
- This sensor does not support SNMPv1.
- As of iRMC S5, additional counters for physical disks and logical disks are supported.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor supersedes the deprecated SNMP Fujitsu System Health sensor.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

System Specific

Setting	Description
Measurements	<p>Select the measurements that you want to monitor. PRTG creates one sensor for each measurement that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ X +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpfujitsusystemhealthsensor ▪ snmp ▪ systemhealth ▪ fujitsu ▪ irmc
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

System Specific

System Specific

Measurement ⓘ	sc2CPU
Sensor Version ⓘ	2
Identifier ⓘ	
OID Index ⓘ	1.1

System Specific

Setting	Description
Measurement	Shows the type of measurement that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Sensor Version	Shows the version of the sensor definition that was used to create this sensor.
Identifier	Shows the value that the sensor uses to find the component in the OID table. i The identifier has the following format: RowIndex | Unique | Measurement . For example, 1.1|BATT 3.0V|Voltage . i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
OID Index	Shows the OID table index that this sensor uses. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.



Debug Options

Debug Options

Result Handling ⓘ


Discard result
 Store result


Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].Data.txt and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>




Sensor Display

Sensor Display

Primary Channel  Downtime


Graph Type  Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>


Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU Status	<p>The CPU status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: OK ▪ Warning status: Warning ▪ Down status: Error

Channel	Description
	<ul style="list-style-type: none"> Unknown status: Unknown
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Fan Status	<p>The fan status</p> <ul style="list-style-type: none"> Up status: OK Warning status: Warning Down status: Error Unknown status: Unknown
Memory Module Status	<p>The memory module status</p> <ul style="list-style-type: none"> Up status: OK Warning status: Warning Down status: Error Unknown status: Unknown
Overall Status	<p>The overall status</p> <ul style="list-style-type: none"> Up status: OK Warning status: Warning Down status: Error Unknown status: Unknown <p> This channel is the primary channel by default.</p>
Power Supply Status	<p>The power supply status</p> <ul style="list-style-type: none"> Up status: OK Warning status: Warning Down status: Error Unknown status: Unknown
Temperature Status	<p>The temperature status</p> <ul style="list-style-type: none"> Up status: OK Warning status: Warning Down status: Error

Channel	Description
	<ul style="list-style-type: none">▪ Unknown status: Unknown
Voltage Status	The voltage status <ul style="list-style-type: none">▪ Up status: OK▪ Warning status: Warning▪ Down status: Error▪ Unknown status: Unknown

 The sensor can also show CPU speed and core count, fan speed, number of correctable and uncorrectable errors of the memory module, service processor battery status, condition of the power supply, power limit status, and power consumption.

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

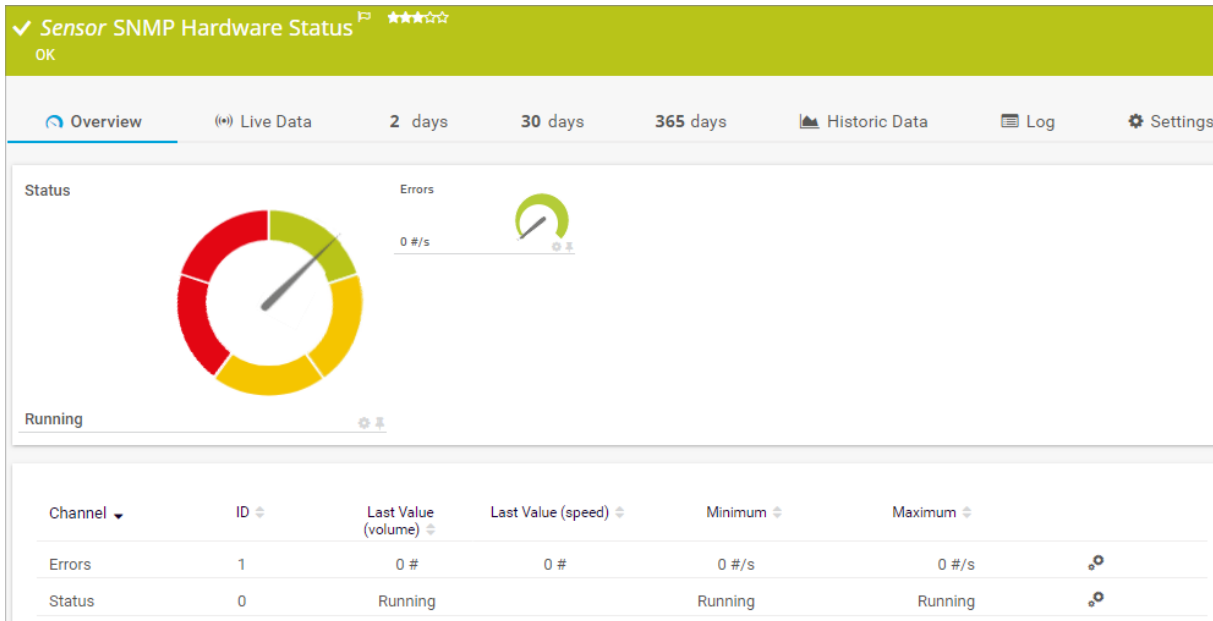
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.165 SNMP Hardware Status Sensor

The SNMP Hardware Status sensor monitors the status of a server's hardware component via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Hardware Status Sensor

Sensor in Other Languages

- Dutch: SNMP Hardware Status
- French: Statut matériel SNMP
- German: SNMP Hardwarezustand
- Japanese: SNMP ハードウェア正常性
- Portuguese: Status do hardware SNMP
- Russian: SNMP
- Simplified Chinese: SNMP 硬件状态
- Spanish: Estado del hardware de SNMP

Remarks

- It might not work to query data from a probe device via SNMP (querying `localhost`, `127.0.0.1`, or `::1`). [Add this device to PRTG](#) with the IP address that it has in your network and create the SNMP sensor on this device instead.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Hardware Specific

Setting	Description
Hardware Components	<p>Select the hardware components that you want to monitor. PRTG creates one sensor for each hardware component that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a blue 'x' to remove it and a '+' to add more.
- Priority:** A section with five stars, where the first three are filled, indicating a priority of 3.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ hardwarestatus
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Hardware Specific

Hardware Specific	
Hardware Components i	1
Product ID i	0.0
Description i	Send to Microsoft OneNote 16 Driver
Type i	Printer

Hardware Specific

Setting	Description
Hardware Components	Shows the hardware component that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Product ID	Shows the product ID of the hardware component that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Description	Shows the description of the hardware component that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Type	Shows the type of the hardware component that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p> <ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
Errors	The number of errors per second
Status	<p>The status of the hardware component</p> <ul style="list-style-type: none">▪ Up status¹⁹⁷: Running▪ Warning status: Warning, Testing▪ Down status: Down, Unknown <p> This channel is the primary channel by default.</p>

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

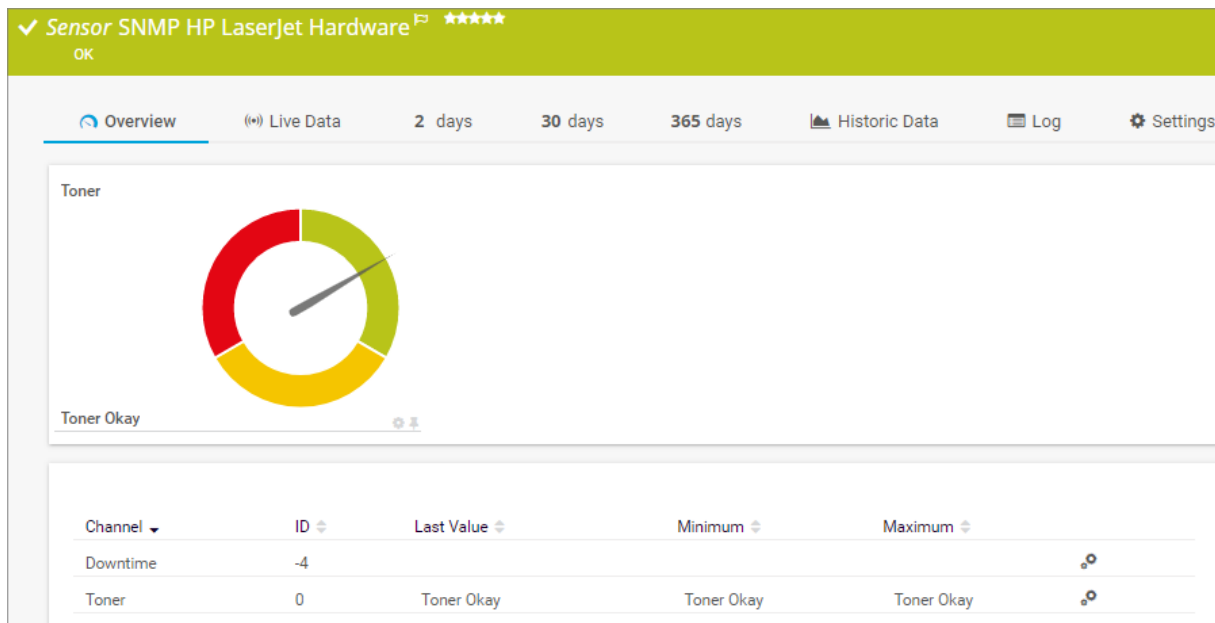
- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁵⁷

7.8.166 SNMP HP LaserJet Hardware Sensor

The SNMP HP LaserJet Hardware sensor monitors performance counters on an HP LaserJet hardware device via the Simple Network Management Protocol (SNMP).

i The SNMP HP LaserJet Hardware sensor does not appear as a running sensor, instead it is created as an [SNMP Custom Advanced sensor](#)²⁴⁶⁴.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)²⁶²⁷.



SNMP HP LaserJet Hardware Sensor

Sensor in Other Languages

- Dutch: SNMP HP LaserJet Hardware
- French: Matériels SNMP HP LaserJet
- German: SNMP HP LaserJet Hardware
- Japanese: SNMP HP LaserJet ハードウェア
- Portuguese: Hardware da HP LaserJet SNMP
- Russian: HP LaserJet SNMP
- Simplified Chinese: SNMP HP LaserJet 硬件
- Spanish: Hardware SNMP HP LaserJet

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

HP LaserJet Specific

Setting	Description
Library OIDs	<p>Select the categories that you want to monitor. PRTG creates one SNMP Custom Advanced sensor including all performance counters that you select.</p> <p>The following performance counters for your printer are available:</p> <ul style="list-style-type: none"> ▪ Toner/Status ▪ Paper/Status ▪ Jam/Status <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ ✕ +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> hplaserjet
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HP LaserJet Specific

HP LaserJet Specific

Interface i *HP Laserjet / Jam/Status*

If Value Changes i Ignore changes
 Trigger 'change' notification

HP LaserJet Specific

Setting	Description
Interface	Shows the name of the category (performance counter) that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
If Value Changes	Define what the sensor does when the sensor value changes: <ul style="list-style-type: none"> ▪ Ignore changes (default): Take no action on change. ▪ Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁶, you can use this mechanism to trigger a notification³³⁶⁷ whenever the sensor value changes.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⚙ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Jam	<p>The paper jam status</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: No Jam Detected ▪ Down status: Paper Jam Detected

Channel	Description
Paper	The paper status <ul style="list-style-type: none">▪ Up status: Paper Okay▪ Down status: Manual Paper Feed Required, Out Of Paper Or No Cassette Loaded
Toner	The toner status <ul style="list-style-type: none">▪ Up status: Toner Okay▪ Warning status: Toner Low▪ Down status: No Toner Cartridge Loaded

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

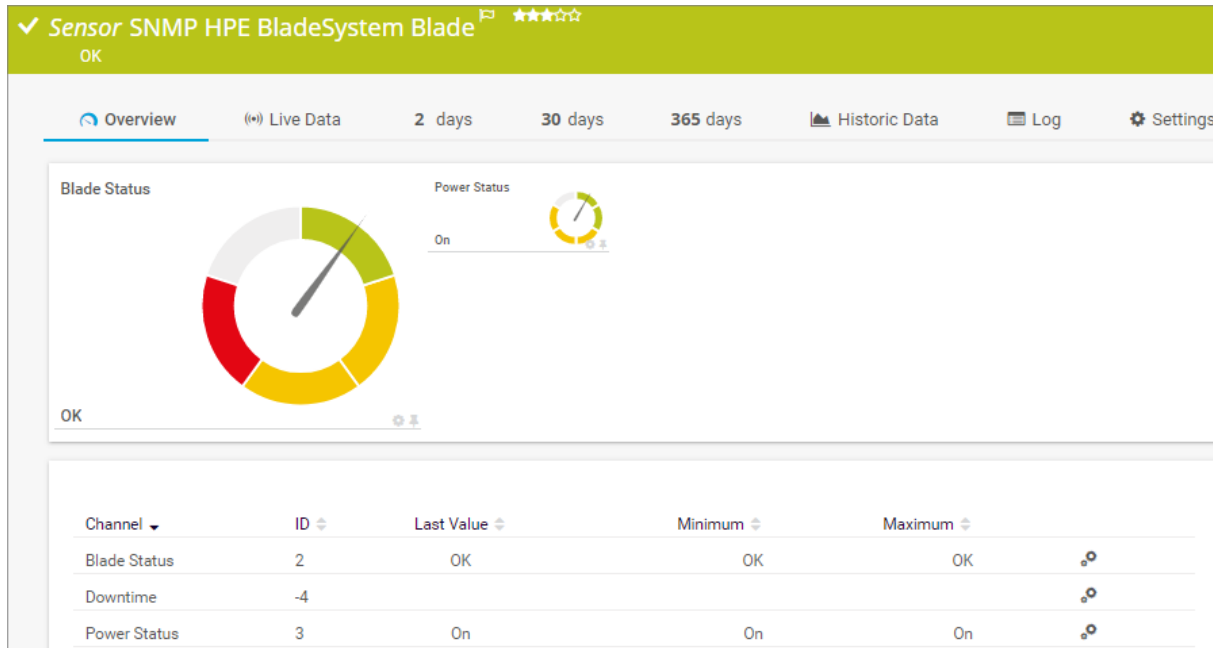
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.167 SNMP HPE BladeSystem Blade Sensor

The SNMP HPE BladeSystem Blade sensor monitors the status of an HPE BladeSystem via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP HPE BladeSystem Blade Sensor

Sensor in Other Languages

- Dutch: SNMP HPE BladeSystem Blade
- French: SNMP HPE BladeSystem Blade
- German: SNMP HPE BladeSystem Blade
- Japanese: SNMP HPE BladeSystem ブレード
- Portuguese: Blade do SNMP HPE BladeSystem
- Russian: - HPE BladeSystem SNMP
- Simplified Chinese: SNMP HPE BladeSystem 刀片
- Spanish: Blade de SNMP de HPE BladeSystem

Remarks

- Make sure that you add this sensor to a device whose IP address or Domain Name System (DNS) name points to the HPE BladeSystem Enclosure hosting the Onboard Administrator.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

HPE BladeSystem Specific

Setting	Description
Server Blades	<p>Select the blades that you want to monitor. PRTG creates one sensor for each server blade that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a blue 'x' to remove it and a '+' to add more.
- Priority:** A section with five stars, where the first three are filled, indicating a priority of 3.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmp ▪ hpe ▪ blade ▪ bladesystem
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HPE BladeSystem Specific

HPE BladeSystem Specific
Server Blades **i**

HPE BladeSystem Specific

Setting	Description
Server Blades	Shows the server blade that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click under the corresponding setting name to disable the inheritance and to display its options.



For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None


Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays


Setting	Description
	<ul style="list-style-type: none"> ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency.


Setting	Description
	<ul style="list-style-type: none"> Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies [4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector [251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Blade Status	<p>The blade status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: OK ▪ Warning status: Degraded, Unknown ▪ Down status: Failed ▪ Unknown status: Other <p>i This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Power Status	<p>The power status</p> <ul style="list-style-type: none"> ▪ Up status: On, Rebooting ▪ Warning status: Off, Power Staged Off, Unknown ▪ Unknown status: Other

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

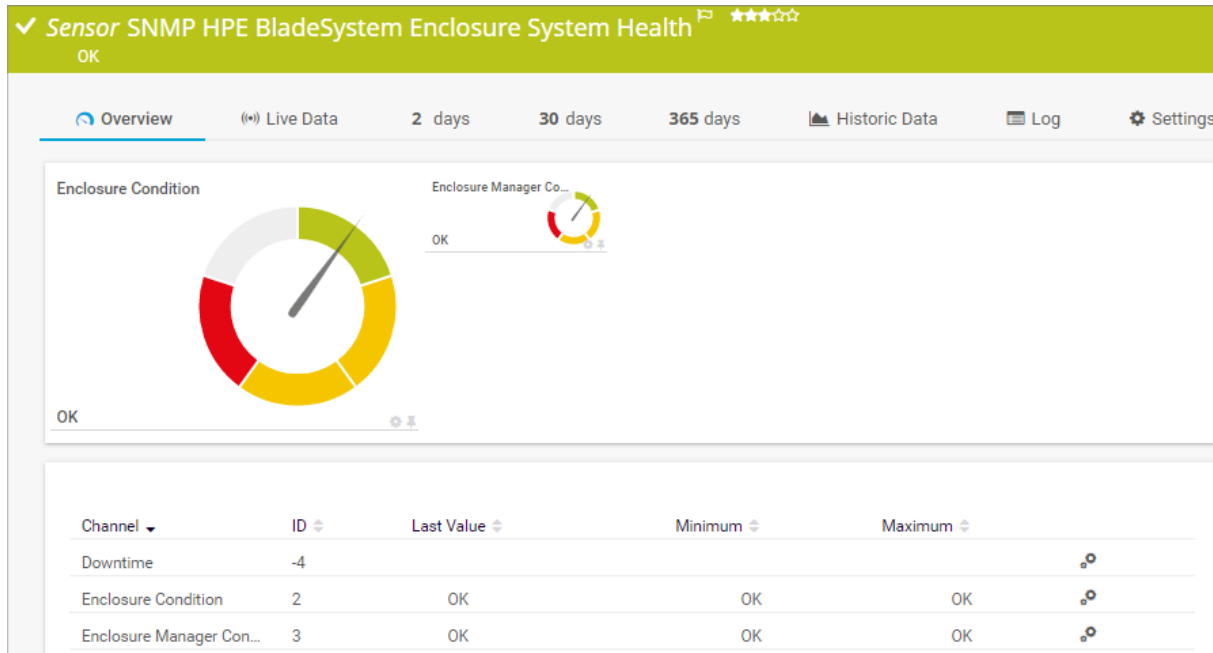
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.168 SNMP HPE BladeSystem Enclosure System Health Sensor

The SNMP HPE BladeSystem Enclosure System Health sensor monitors the system health of an HPE BladeSystem device via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP HPE BladeSystem Enclosure System Health Sensor

Sensor in Other Languages

- Dutch: SNMP HPE BladeSystem Behuizing Systeem Gesteldheid
- French: État d'un système de Enclosure HPE BladeSystem SNMP
- German: SNMP HPE BladeSystem Enclosure Systemzustand
- Japanese: SNMP HPE BladeSystem インクロージャのシステム正常性
- Portuguese: Funcionamento do sistema de gabinete de HPE BladeSystem via SNMP
- Russian: HPE BladeSystem SNMP
- Simplified Chinese: SNMP HPE BladeSystem 外壳系统运行状况
- Spanish: Salud de sistema SNMP de carcasa HPE BladeSystem

Remarks

- Make sure that you add this sensor to a device whose IP address or Domain Name System (DNS) name points to the HPE BladeSystem Enclosure hosting the Onboard Administrator.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmp ▪ hpe ▪ blade ▪ bladesystem ▪ systemhealth ▪ health
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display


Sensor Display

Primary Channel **ⓘ** Downtime


Graph Type **ⓘ** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p> <ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic.  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷).

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Enclosure Condition	The enclosure condition

Channel	Description
	<ul style="list-style-type: none"> ▪ Up status¹⁹⁷: OK ▪ Warning status: Degraded, Unknown ▪ Down status: Failed ▪ Unknown status: Other <p> This channel is the primary channel by default.</p>
Enclosure Manager Condition	<p>The enclosure manager condition</p> <ul style="list-style-type: none"> ▪ Up status: OK ▪ Warning status: Degraded, Unknown ▪ Down status: Failed ▪ Unknown status: Other

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

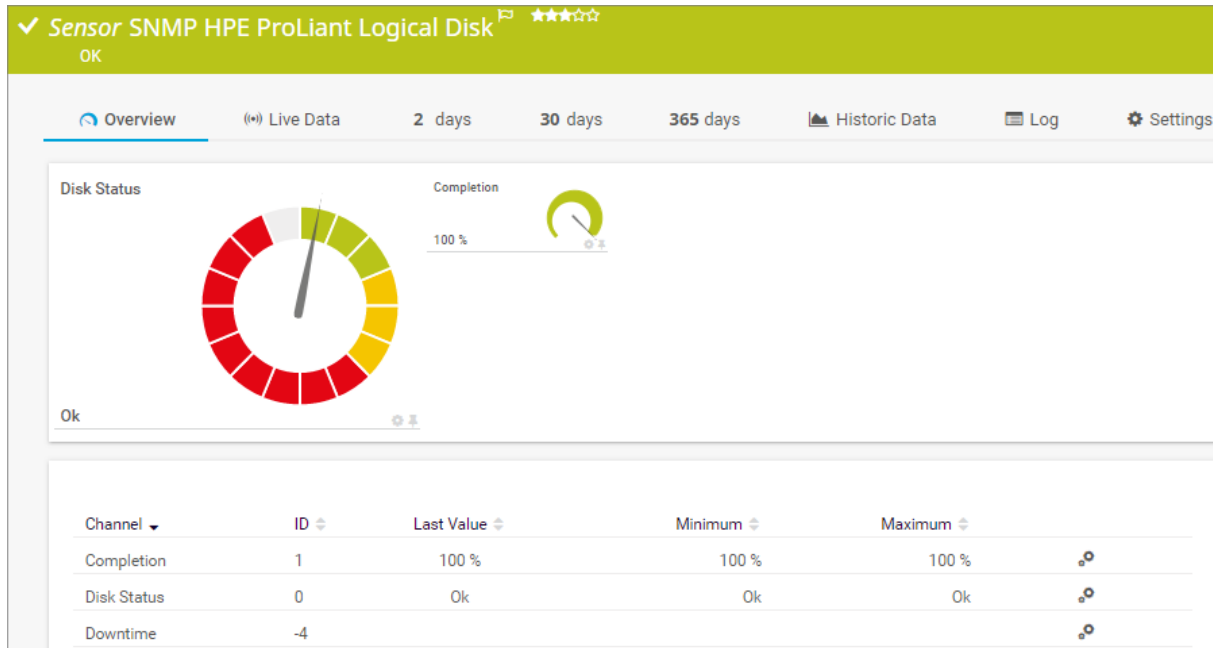
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.8.169 SNMP HPE ProLiant Logical Disk Sensor

The SNMP HPE ProLiant Logical Disk sensor monitors a logical disk in an HPE server via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP HPE ProLiant Logical Disk Sensor

Sensor in Other Languages

- Dutch: SNMP HPE ProLiant Logische Schijf
- French: Disque logique HPE ProLiant SNMP
- German: SNMP HPE ProLiant Logischer Datenträger
- Japanese: SNMP HPE ProLiant 論理ディスク
- Portuguese: Disco lógico SNMP HPE ProLiant
- Russian: HPE ProLiant SNMP
- Simplified Chinese: SNMP HPE ProLiant 逻辑磁盘
- Spanish: Disco lógico SNMP HPE ProLiant

Remarks

- For Gen9 servers or earlier: This sensor requires HPE Insight Management Agents and HPE Insight Management Web-based Enterprise Management (WBEM) Providers to be installed on the target device.
- For Gen10 servers: This sensor requires HPE Agentless Management and the HPE Agentless Management Service to be installed on the target device.
- For Gen10 servers: Use the HPE Integrated Lights Out (iLO) interface as the parent device for this sensor.

- This sensor supports monitoring iLO as of iLO version 3. We recommend that you use iLO 4 or later.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)⁴⁴⁸⁵.

Detailed Requirements

Requirement	Description
HPE system management tools	<p>For Gen9 servers or earlier, this sensor needs a specific HPE system management tool to be installed on the target device to report data via SNMP: HPE Insight Management Agents. To receive SNMP data from redundant array of independent disks (RAID) controllers, you additionally need HPE Insight Management WBEM Providers. For Gen10 servers, this sensor no longer requires HPE system management tools. Instead, the sensor needs the Agentless Management Service to be installed on the target device.</p> <ul style="list-style-type: none"> ■ For more details and download links, see the Knowledge Base: Monitor HP ProLiant via SNMP? ⓘ For Gen9 servers or earlier, some of the HPE object identifiers (OID) that this sensor uses are only accessible via the iLO interface. If this sensor throws an error that it cannot find "such device types", create a device that points to the address of the HPE iLO interface (if available) and add the sensor to this device. We recommend that you use the Agentless Management feature with configured SNMP. You can set this up in the iLO configuration interface under Administration | Management | SNMP Settings. For Gen10 servers, use the HPE iLO interface as parent device for this sensor.

Add Sensor

The [Add Sensor](#)³⁶⁷ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

HPE ProLiant Logical Disk Settings

Setting	Description
Disk	<p>Select the logical disks that you want to monitor. PRTG creates one sensor for each logical disk that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' configuration page. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus sign to add more, and a 'Priority' field set to 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmphpelogicaldisksensor ▪ logicaldisk ▪ snmphpe ▪ hpe
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HPE ProLiant Logical Disk Settings

HPE ProLiant Logical Disk Settings
Disk ⓘ Disk 0

HPE ProLiant Logical Disk Settings

Setting	Description
Disk	<p>Shows the name of the disk that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display




Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ
 Show channels independently (default)

 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

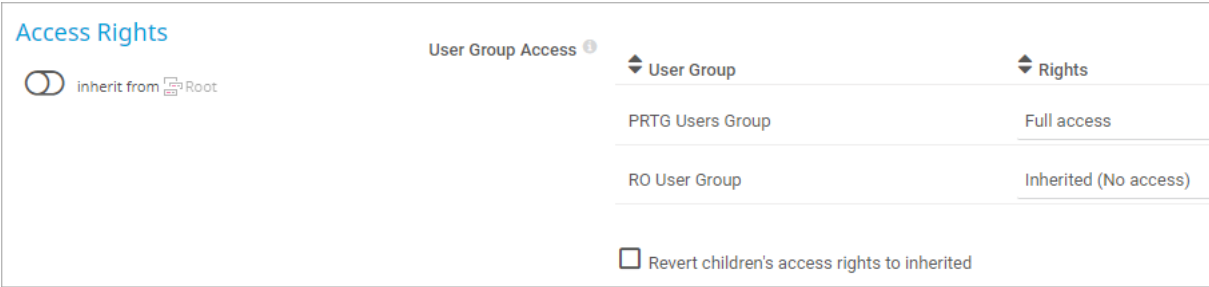
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights


Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Completion	<p>The completion in percent</p> <p>i This is only important when the disk status is "Reconstructing" or "Expanding" and illustrates the progress of this task.</p>
Disk Status	<p>The disk status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Expanding, Ok, Rebuilding ▪ Warning status: Ready For Rebuild, Recovering, Unconfigured ▪ Down status: Bad Connect, Erasing, Failed, Multipath Access Degraded, Not Available, Overheating, Queued For Expansion, Shutdown, Wrong Drive, ▪ Unknown status: Other <p>i This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>

More

■ KNOWLEDGE BASE

Monitor HP ProLiant via SNMP?

- <https://kb.paessler.com/en/topic/33133>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

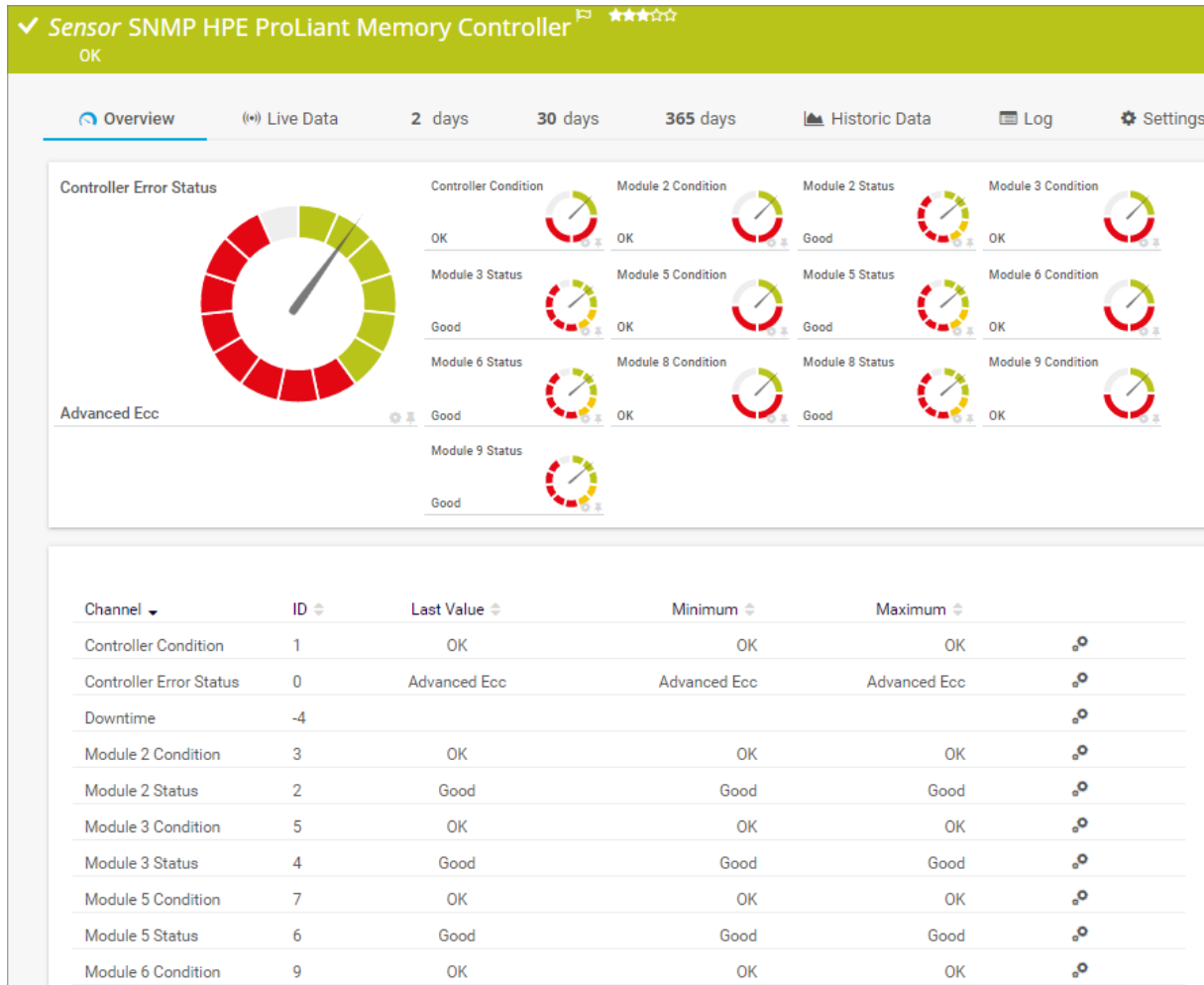
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.8.170 SNMP HPE ProLiant Memory Controller Sensor

The SNMP HPE ProLiant Memory Controller sensor monitors a memory controller in an HPE server via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP HPE ProLiant Memory Controller Sensor

Sensor in Other Languages

- Dutch: SNMP HPE ProLiant Geheugencontroller
- French: Contrôleur de mémoire HPE ProLiant SNMP
- German: SNMP HPE ProLiant Speichercontroller
- Japanese: SNMP HPE ProLiant メモリコントローラー
- Portuguese: Controlador de memória SNMP HPE ProLiant
- Russian: HPE ProLiant SNMP
- Simplified Chinese: SNMP HPE ProLiant 内存控制器
- Spanish: Controlador de memoria SNMP HPE ProLiant

Remarks

- For Gen9 servers or earlier: This sensor requires HPE Insight Management Agents and HPE Insight Management Web-based Enterprise Management (WBEM) Providers to be installed on the target device.
- For Gen10 servers: This sensor requires HPE Agentless Management and the HPE Agentless Management Service to be installed on the target device.
- For Gen10 servers: Use the HPE Integrated Lights Out (iLO) interface as the parent device for this sensor.
- If modules are inserted at a later point, you have to add this sensor anew.
- This sensor supports monitoring iLO as of iLO version 3. We recommend that you use iLO 4 or later.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)⁴⁴⁸⁵.
- See the Knowledge Base: [Which lookup values are supported by the SNMP HPE ProLiant Memory Controller sensor?](#)

Detailed Requirements

Requirement	Description
HPE system management tools	<p>For Gen9 servers or earlier, this sensor needs a specific HPE system management tool to be installed on the target device to report data via SNMP: HPE Insight Management Agents. To receive SNMP data from redundant array of independent disks (RAID) controllers, you additionally need HPE Insight Management WBEM Providers. For Gen10 servers, this sensor no longer requires HPE system management tools. Instead, the sensor needs the Agentless Management Service to be installed on the target device.</p> <ul style="list-style-type: none"> ■ For more details and download links, see the Knowledge Base: Monitor HP ProLiant via SNMP? ⓘ For Gen9 servers or earlier, some of the HPE object identifiers (OID) that this sensor uses are only accessible via the iLO interface. If this sensor throws an error that it cannot find "such device types", create a device that points to the address of the HPE iLO interface (if available) and add the sensor to this device. We recommend that you use the Agentless Management feature with configured SNMP. You can set this up in the iLO configuration interface under Administration | Management | SNMP Settings. For Gen10 servers, use the HPE iLO interface as parent device for this sensor.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

HPE ProLiant Memory Controller Settings

Setting	Description
Controllers	<p>Select the memory controllers that you want to monitor. PRTG creates one sensor for each memory controller that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog with the following elements:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list of tags with 'exampletag' selected, accompanied by a plus sign to add more.
- Priority:** A star rating system showing 3 stars selected out of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited. ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ snmphmemorycontrollersensor ▪ memorycontroller ▪ snmphpe ▪ hpe
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HPE ProLiant Memory Controller Settings

HPE ProLiant Memory Controller Settings

Controller ⓘ
Memory Controller CPU 1

HPE ProLiant Memory Controller Settings

Setting	Description
Controller	Shows the name of the controller that this sensor monitors.

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display


Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval ⓘ 60 seconds

inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#)¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Controller Condition	<p>The condition of the controller</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: OK ▪ Warning status: Degraded, Unknown ▪ Down status: Failed ▪ Unknown status: Other
Controller Error Status	<p>The error status of the controller</p> <ul style="list-style-type: none"> ▪ Up status: Advanced Ecc, Lock Step, Memory Raid, Mirrored, No Error, OnlineSpare ▪ Down status: Bus Error, Config Error, Dimm Ecc Error, Lock Step Error, Mirrored Dimm Error, Power Error, Raid Dimm Error, Unlock Error ▪ Unknown status: Other <p>i This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Module [#] Condition	<p>The condition of the module</p>

Channel	Description
	<ul style="list-style-type: none">▪ Up status: OK▪ Down status: Degraded, Failed▪ Unknown status: Other
Module [#] Status	<p>The status of the module</p> <ul style="list-style-type: none">▪ Up status: Add, Good, Present▪ Warning status: Not Present, Upgrade▪ Down status: Bad Config, Degraded, Does Not Match, Missing, Not Supported▪ Unknown status: Other

More

KNOWLEDGE BASE

Which lookup values are supported by the SNMP HPE ProLiant Memory Controller sensor?

- <https://kb.paessler.com/en/topic/44803>

Monitor HP ProLiant via SNMP?

- <https://kb.paessler.com/en/topic/33133>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3997

7.8.171 SNMP HPE ProLiant Network Interface Sensor

The SNMP HPE ProLiant Network Interface sensor monitors a network interface in an HPE server via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP HPE ProLiant Network Interface Sensor

Sensor in Other Languages

- Dutch: SNMP HPE ProLiant Netwerkinterface
- French: Interface réseau HPE ProLiant SNMP
- German: SNMP HPE ProLiant Netzwerkschnittstelle
- Japanese: SNMP HPE ProLiant ネットワークインターフェース
- Portuguese: Interface de rede SNMP HPE ProLiant
- Russian: HPE ProLiant SNMP
- Simplified Chinese: SNMP HPE ProLiant 网络接口
- Spanish: SNMP Interface de red HPE ProLiant


Remarks

- For Gen9 servers or earlier: This sensor requires HPE Insight Management Agents and HPE Insight Management Web-based Enterprise Management (WBEM) Providers to be installed on the target device.
- For Gen10 servers: This sensor requires HPE Agentless Management and the HPE Agentless Management Service to be installed on the target device.
- For Gen10 servers: Use the HPE Integrated Lights Out (iLO) interface as the parent device for this sensor.
- During sensor creation, the status of each available network interface is shown. If this status is Link Failure, it is still possible to add a sensor for the respective interface. Though, most likely the sensor for this interface does not work correctly. The error message in this case is "No Such Name (SNMP error # 2)".
- This sensor supports monitoring iLO as of iLO version 3. We recommend that you use iLO 4 or later.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

Detailed Requirements

Requirement	Description
HPE system management tools	<p>For Gen9 servers or earlier, this sensor needs a specific HPE system management tool to be installed on the target device to report data via SNMP: HPE Insight Management Agents. To receive SNMP data from redundant array of independent disks (RAID) controllers, you additionally need HPE Insight Management WBEM Providers. For Gen10 servers, this sensor no longer requires HPE system management tools. Instead, the sensor needs the Agentless Management Service to be installed on the target device.</p> <p>■ For more details and download links, see the Knowledge Base: Monitor HP ProLiant via SNMP?</p> <p>ⓘ For Gen9 servers or earlier, some of the HPE object identifiers (OID) that this sensor uses are only accessible via the iLO interface. If this sensor throws an error that it cannot find "such device types", create a device that points to the address of the HPE iLO interface (if available) and add the sensor to this device. We recommend that you use the Agentless Management feature with configured SNMP. You can set this up in the iLO configuration interface under Administration | Management | SNMP Settings. For Gen10 servers, use the HPE iLO interface as parent device for this sensor.</p>

Add Sensor

The [Add Sensor](#)  dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

HPE ProLiant Network Interface Settings

Setting	Description
Network Interfaces	<p>Select the network interfaces that you want to monitor. PRTG creates one sensor for each interface that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p> <p>i If this status is Link Failure, it is still possible to add a sensor for the respective interface. Though, most likely the sensor for this interface does not work correctly. The error message in this case is No Such Name (SNMP error # 2).</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog box. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list of tags with 'exampletag' selected, and a plus sign to add more.
- Priority:** A star rating system showing 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p>

Setting	Description
	<p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmphpenetworkinterfacesensor ▪ snmphpe ▪ hpe
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HPE ProLiant Network Interface Settings

HPE ProLiant Network Interface Settings


Network Interfaces **i**


HPE ProLiant Network Interface Settings

Setting	Description
Network Interfaces	<p>Shows the name of the network interface that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>




Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type  Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Alignment Errors	The number of alignment errors per second
Bad Frames Received	The number of bad frames received per second
Bad Frames Transmitted	The number of bad frames transmitted per second
Carrier Sense Errors	The number of carrier sense errors per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Excessive Collisions	The number of excessive collisions per second
FCS Errors	The number of Frame Check Sequence (FCS) errors per second
Frames Too Long	The number of frames that are too long per second
Good Frames Received	The number of good frames received per second
Good Frames Transmitted	The number of good frames transmitted per second

Channel	Description
Late Collisions	The number of late collisions per second
Total	The total traffic in bytes per second
Traffic In	The incoming traffic in bytes per second  This channel is the primary channel by default.
Traffic Out	The outgoing traffic in bytes per second

More

KNOWLEDGE BASE

Monitor HP ProLiant via SNMP?

- <https://kb.paessler.com/en/topic/33133>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

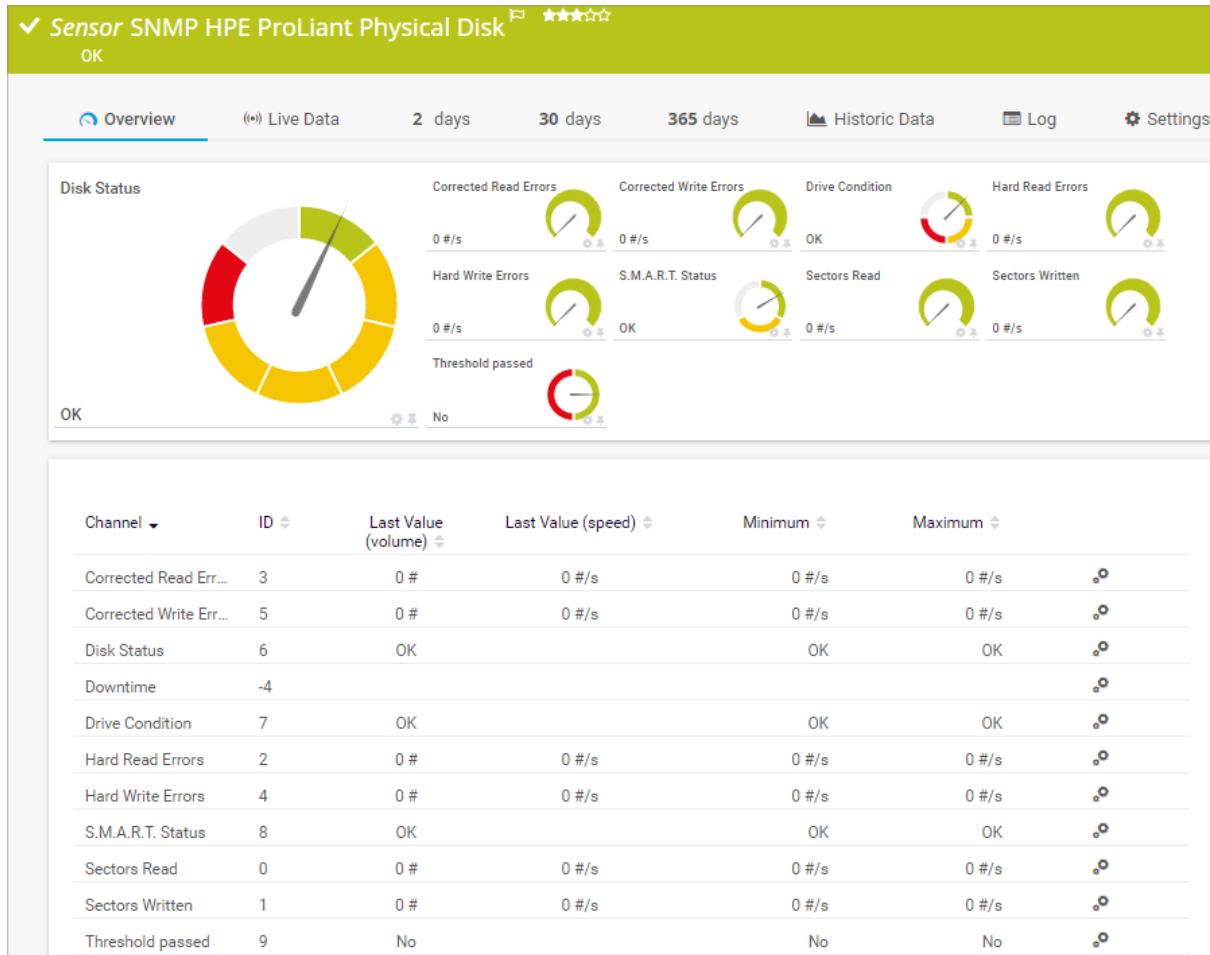
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.172 SNMP HPE ProLiant Physical Disk Sensor

The SNMP HPE ProLiant Physical Disk sensor monitors a physical disk in an HPE server via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP HPE ProLiant Physical Disk Sensor

Sensor in Other Languages

- Dutch: SNMP HPE ProLiant Fysieke Schijf
- French: Disque physique HPE ProLiant SNMP
- German: SNMP HPE ProLiant Physikalischer Datenträger
- Japanese: SNMP HPE ProLiant 物理ディスク
- Portuguese: Disco físico SNMP HPE ProLiant
- Russian: HPE ProLiant SNMP
- Simplified Chinese: SNMP HPE ProLiant 物理磁盘
- Spanish: SNMP Disco físico HPE ProLiant

Remarks

- For Gen9 servers or earlier: This sensor requires HPE Insight Management Agents and HPE Insight Management Web-based Enterprise Management (WBEM) Providers to be installed on the target device.
- For Gen10 servers: This sensor requires HPE Agentless Management and the HPE Agentless Management Service to be installed on the target device.
- For Gen10 servers: Use the HPE Integrated Lights Out (iLO) interface as the parent device for this sensor.
- The sensor only show Disk Status and no other channels if it runs in "Limited Monitoring" mode. For more information, see [SNMP HPE ProLiant Physical Disk sensor not showing all information](#).
- This sensor supports monitoring iLO as of iLO version 3. We recommend that you use iLO 4 or later.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)⁴⁴⁸⁵.

Detailed Requirements

Requirement	Description
HPE system management tools	<p>For Gen9 servers or earlier, this sensor needs a specific HPE system management tool to be installed on the target device to report data via SNMP: HPE Insight Management Agents. To receive SNMP data from redundant array of independent disks (RAID) controllers, you additionally need HPE Insight Management WBEM Providers. For Gen10 servers, this sensor no longer requires HPE system management tools. Instead, the sensor needs the Agentless Management Service to be installed on the target device.</p> <ul style="list-style-type: none"> ■ For more details and download links, see the Knowledge Base: Monitor HP ProLiant via SNMP? ⓘ For Gen9 servers or earlier, some of the HPE object identifiers (OID) that this sensor uses are only accessible via the iLO interface. If this sensor throws an error that it cannot find "such device types", create a device that points to the address of the HPE iLO interface (if available) and add the sensor to this device. We recommend that you use the Agentless Management feature with configured SNMP. You can set this up in the iLO configuration interface under Administration | Management | SNMP Settings. For Gen10 servers, use the HPE iLO interface as parent device for this sensor.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

HPE ProLiant Physical Disk Settings

Setting	Description
Disk	<p>Select the physical disks that you want to monitor. PRTG creates one sensor for each physical disk that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus sign, and a 'Priority' field with three stars selected.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited. ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ snmphpephysicaldisksensor ▪ physicaldisk ▪ snmphpe ▪ hpe
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

HPE ProLiant Physical Disk Settings

HPE ProLiant Physical Disk Settings

Disk ⓘ

HPE ProLiant Physical Disk Settings

Setting	Description
Disk	Shows the ID of the physical disk that this sensor monitors.

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display


Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Corrected Read Errors	The corrected read errors per second
Corrected Write Errors	The corrected write errors per second
Disk Status	<p>The overall disk status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: OK ▪ Warning status: Erase Done, Erase Queued, Erasing, Not Authenticated, Predictive Failure ▪ Down status: Failed, SSD Wear Out ▪ Unknown status: Other <p>i This channel is the primary channel by default.</p>
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Drive Condition	<p>The drive condition</p> <ul style="list-style-type: none"> ▪ Up status: OK ▪ Warning status: Degraded

Channel	Description
	<ul style="list-style-type: none">▪ Down status: Failed▪ Unknown status: Other
Hard Read Errors	The number of hard read errors per second
Hard Write Errors	The number of hard write errors per second
S.M.A.R.T. Status	The Self-Monitoring, Analysis and Reporting Technology (S.M.A.R.T.) status <ul style="list-style-type: none">▪ Up status: OK▪ Warning status: Replace Drive▪ Unknown status: Other
Sectors Read	The number of sectors read per second
Sectors Written	The number of sectors written per second
Threshold Passed	If the threshold is passed <ul style="list-style-type: none">▪ Up status: No▪ Down status: Yes

More

KNOWLEDGE BASE

SNMP HPE ProLiant Physical Disk sensor not showing all information

- <https://kb.paessler.com/en/topic/70009>

Monitor HP ProLiant via SNMP?

- <https://kb.paessler.com/en/topic/33133>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

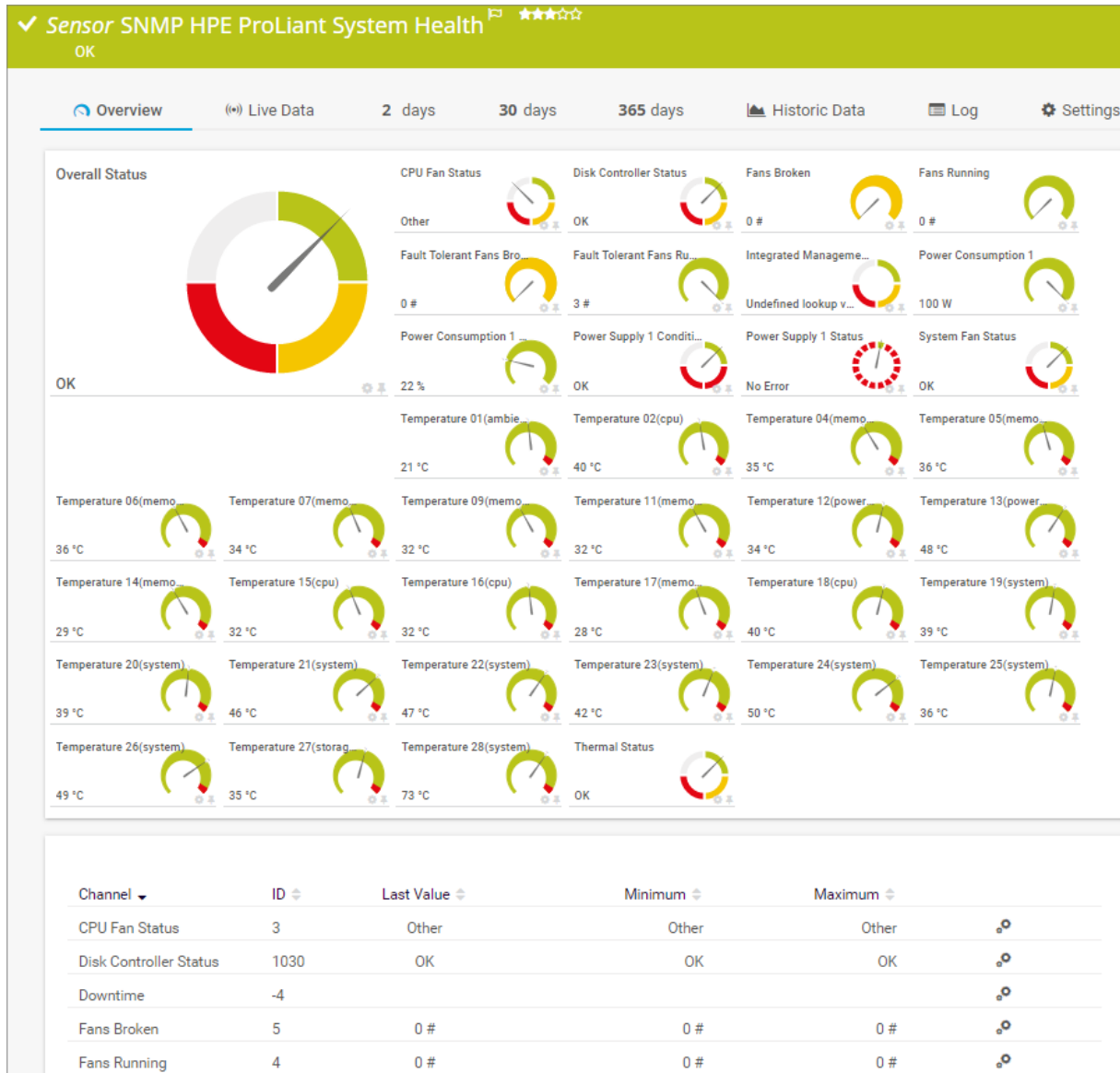
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.173 SNMP HPE ProLiant System Health Sensor

The SNMP HPE ProLiant System Health sensor monitors the system health of an HPE ProLiant server via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP HPE ProLiant System Health Sensor

Sensor in Other Languages

- Dutch: SNMP HPE ProLiant Systeemstatus
- French: État du système HPE ProLiant SNMP
- German: SNMP HPE ProLiant Systemzustand
- Japanese: SNMP HPE ProLiant システム正常性
- Portuguese: Funcionamento do sistema SNMP HPE ProLiant

- Russian: HPE ProLiant SNMP
- Simplified Chinese: SNMP HPE ProLiant 系统运行状况
- Spanish: SNMP Salud de sistema HPE ProLiant

Remarks

- For Gen9 servers or earlier: This sensor requires HPE Insight Management Agents and HPE Insight Management Web-based Enterprise Management (WBEM) Providers to be installed on the target device.
- For Gen10 servers: Use the HPE Integrated Lights Out (iLO) interface as the parent device for this sensor.
- This sensor has predefined limits for temperatures and broken frames. You can change these limits individually in the [channel settings](#) ³⁹⁷⁷.
- Redundant array of independent disks (RAID) controllers that have no hard disks assigned might cause the Down [status](#) ¹⁹⁷. In this case, deactivate the respective controllers in the HPE ProLiant BIOS to avoid sensor errors.
- This sensor supports monitoring iLO as of iLO version 3. We recommend that you use iLO 4 or later.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#) ⁴⁴⁸⁵.

Detailed Requirements

Requirement	Description
HPE system management tools	<p>For Gen9 servers or earlier, this sensor needs a specific HPE system management tool to be installed on the target device to report data via SNMP: HPE Insight Management Agents. To receive SNMP data from redundant array of independent disks (RAID) controllers, you additionally need HPE Insight Management WBEM Providers. For Gen10 servers, this sensor no longer requires HPE system management tools.</p> <p>■ For more details and download links, see the Knowledge Base: Monitor HP ProLiant via SNMP?</p> <p>i For Gen9 servers or earlier, some of the HPE object identifiers (OID) that this sensor uses are only accessible via the iLO interface. If this sensor throws an error that it cannot find "such device types", create a device that points to the address of the HPE iLO interface (if available) and add the sensor to this device. We recommend that you use the Agentless Management feature with configured SNMP. You can set this up in the iLO configuration interface under Administration | Management | SNMP Settings. For Gen10 servers, use the HPE iLO interface as parent device for this sensor.</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog box. It has a title bar 'Basic Sensor Settings' on the left. Below the title bar, there are three rows of settings:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A text input field containing 'exampletag' with a blue 'x' icon to the right and a plus sign icon to the left of the input field.
- Priority**: A star rating system showing five stars, with the first three stars filled and the last two empty.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ snmphpesystemhealthsensor ▪ systemhealth ▪ snmphpe ▪ hpe
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display

Sensor Display

Primary Channel **ⓘ** Downtime


Graph Type **ⓘ** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ^[397]).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p> i You can change the available intervals in the system administration on PRTG on premises installations. </p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p> i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply. </p> <p> i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply. </p> <p> i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply. </p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule ⓘ None

Maintenance Window ⓘ Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type ⓘ Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules 4170.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU Fan Status	<p>The CPU fan status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: OK ▪ Warning status: Degraded ▪ Down status: Failed

Channel	Description
	<ul style="list-style-type: none"> Unknown status: Other
Disk Controller Status	<p>The disk controller status</p> <ul style="list-style-type: none"> Up status: OK Warning status: Degraded Down status: Failed Unknown status: Other
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Fans Broken	<p>The number of broken fans</p>
Fans Running	<p>The number of running fans</p>
Fault Tolerant Fans Broken	<p>The number of fault-tolerant broken fans</p>
Fault Tolerant Fans Running	<p>The number of fault-tolerant running fans</p>
Overall Status	<p>The overall status</p> <ul style="list-style-type: none"> Up status: OK Warning status: Degraded Down status: Failed Unknown status: Other <p>i This channel is the primary channel by default.</p>
Power Consumption [#]	<p>The power consumption in watts (W)</p>
Power Consumption [#] (%)	<p>The power consumption in percent</p>
Power Supply [#] Condition	<p>The power supply condition</p> <ul style="list-style-type: none"> Up status: OK Down status: Degraded, Failed Unknown status: Other

Channel	Description
Power Supply [#] Status	<p>The power supply status</p> <ul style="list-style-type: none"> ▪ Up status: No Error ▪ Down status: Bist Failure, Brownout, Calibration Table Invalid, Dac Failure, Eprom Failure, Fan Failure, General Failure, Give Up On Startup, Interlock Open, No Power Input, Nvram Invalid, Orring Diode Failed, Ram Test Failed, Temp Failure, Voltage Channel Failed, Vref Failure
System Fan Status	<p>The system fan status</p> <ul style="list-style-type: none"> ▪ Up status: OK ▪ Warning status: Degraded ▪ Down status: Failed ▪ Unknown status: Other
Temperature [#] ([Component])	<p>The temperature of the component</p>
Thermal Status	<p>The thermal status</p> <ul style="list-style-type: none"> ▪ Up status: OK ▪ Warning status: Degraded ▪ Down status: Failed ▪ Unknown status: Other

More

■ KNOWLEDGE BASE

Monitor HP ProLiant via SNMP?

- <https://kb.paessler.com/en/topic/33133>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Why is my SNMP HPE ProLiant System Health sensor in error status after updating PRTG?

- <https://kb.paessler.com/en/topic/61805>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

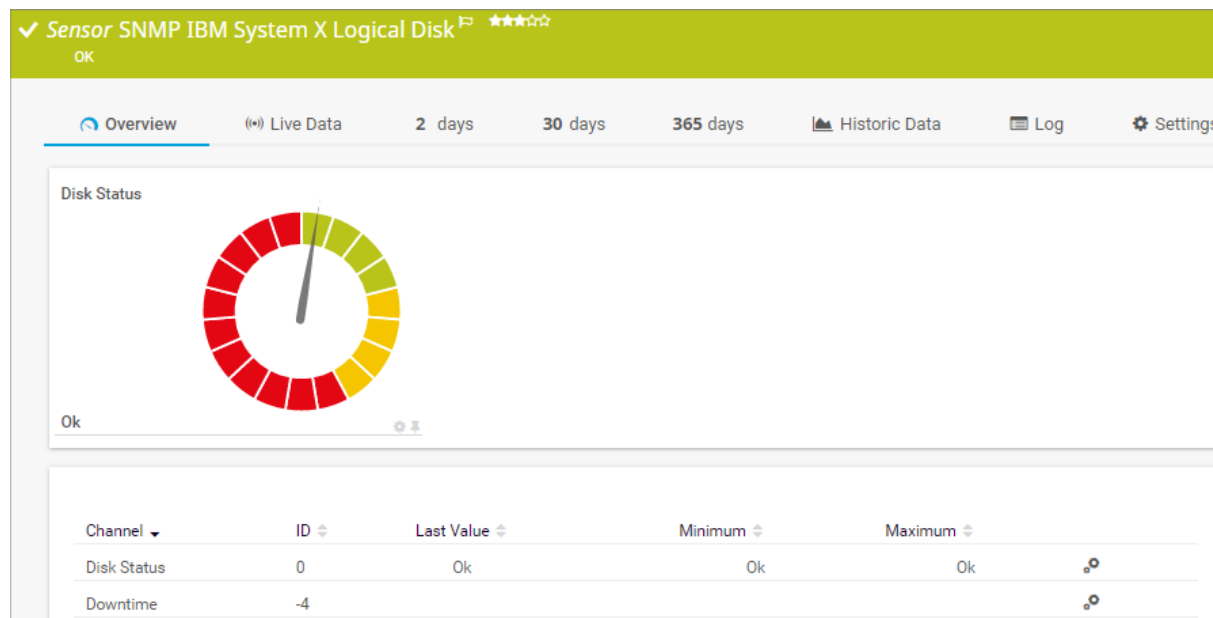
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.174 SNMP IBM System X Logical Disk Sensor

The SNMP IBM System X Logical Disk sensor monitors a logical disk in an IBM server via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)^[2720].



SNMP IBM System X Logical Disk Sensor

Sensor in Other Languages

- Dutch: SNMP IBM System X Logical Disk
- French: Disque logique IBM System X SNMP
- German: SNMP IBM System X Logischer Datenträger
- Japanese: SNMP IBM System X 論理 ディスク
- Portuguese: Disco lógico do IBM System X SNMP
- Russian: IBM System X SNMP
- Simplified Chinese: SNMP IBM 系统 X 逻辑 磁盘
- Spanish: Disco lógico de IBM System X con SNMP

Remarks

- This sensor requires the IBM Systems Director Platform to be installed on the target device.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)^[4485].

- See the Knowledge Base: [What are the requirements to monitor IBM System x?](#)
- See the Knowledge Base: [IBM System X sensors could not find any disk/data on this device \(PE187/PE188/PE194\)](#)

Detailed Requirements

Requirement	Description
IBM Systems Director Platform Agent	<p>This sensor needs the IBM Systems Director Platform Agent to be installed on the target IBM device to monitor it via SNMP.</p> <p>■ For more information, see the Knowledge Base: What are the requirements to monitor IBM System x?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

IBM System X Logical Disk Settings

Setting	Description
Disk	<p>Select the logical disks that you want to monitor. PRTG creates one sensor for each logical disk that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag X +

★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpibmlogicaldisksensor ▪ logicaldisk ▪ snmpibm ▪ ibm
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

IBM System X Logical Disk Settings

IBM System X Logical Disk Settings
Disk **i**

IBM System X Logical Disk Settings

Setting	Description
Disk	<p>Shows the ID of the logical disk that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display
Primary Channel **i** Downtime


Graph Type **i**
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling ³⁹⁷⁷ (available in the channel settings ³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Disk Status	<p>The disk status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Completed, In Service, Ok, Power Mode ▪ Warning status: Dormant, Predictive Failure, Starting, Stressed

Channel	Description
	<ul style="list-style-type: none"> Down status: Aborted, Degraded, Error, Lost Communication, No Contact, Non-Recoverable Error, Other, Stopped, Stopping, Supporting Entity In Error, Unknown <p>i This channel is the primary channel by default.</p>
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

More

■ KNOWLEDGE BASE

What are the requirements to monitor IBM System x?

- <https://kb.paessler.com/en/topic/59393>

IBM System X sensors could not find any disk/data on this device (PE187/PE188/PE194)

- <https://kb.paessler.com/en/topic/73914>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

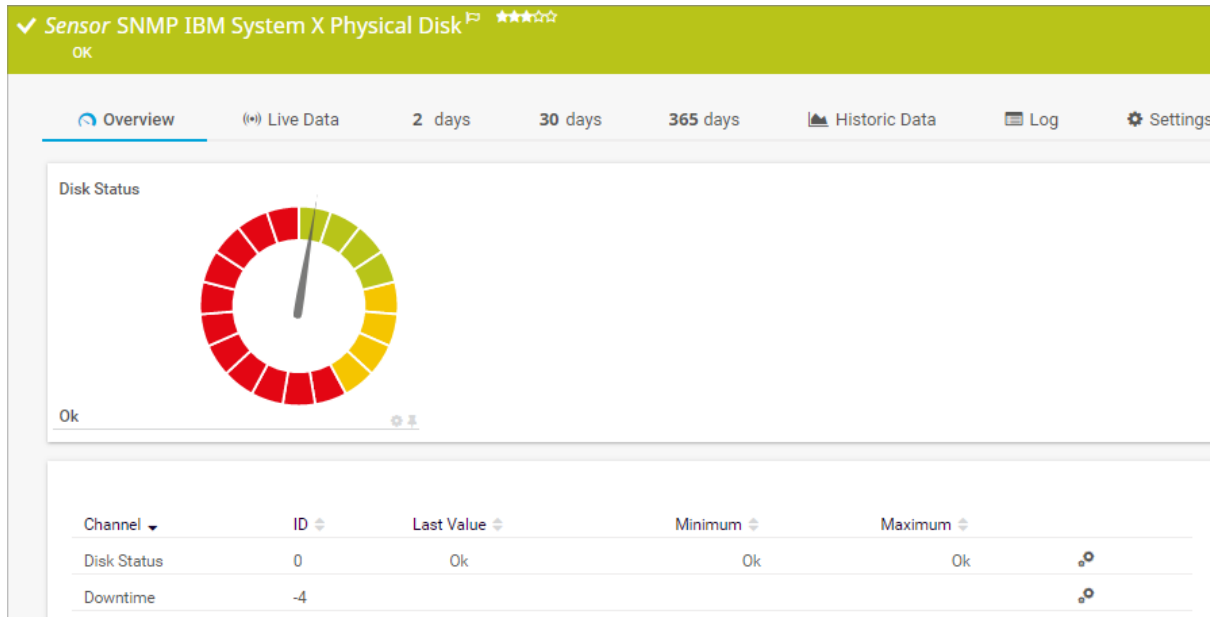
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.175 SNMP IBM System X Physical Disk Sensor

The SNMP IBM System X Physical Disk sensor monitors a physical disk in an IBM server via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP IBM System X Physical Disk Sensor

Sensor in Other Languages

- Dutch: SNMP IBM System X Physical Disk
- French: Disques physiques IBM System X SNMP
- German: SNMP IBM System X Physikalischer Datenträger
- Japanese: SNMP IBM System X 物理 ディスク
- Portuguese: Disco físico do IBM System X SNMP
- Russian: IBM System X SNMP
- Simplified Chinese: SNMP IBM 系统 X 物理 磁盘
- Spanish: Disco físico de IBM System X con SNMP

Remarks

- This sensor requires the IBM Systems Director Platform to be installed on the target device.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

- See the Knowledge Base: [What are the requirements to monitor IBM System x?](#)
- See the Knowledge Base: [IBM System X sensors could not find any disk/data on this device \(PE187/PE188/PE194\)](#)

Detailed Requirements

Requirement	Description
IBM Systems Director Platform Agent	<p>This sensor needs the IBM Systems Director Platform Agent to be installed on the target IBM device to monitor it via SNMP.</p> <p>■ For more information, see the Knowledge Base: What are the requirements to monitor IBM System x?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

IBM System X Physical Disk Settings

Setting	Description
Disk	<p>Select the physical disks that you want to monitor. PRTG creates one sensor for each physical disk that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag ✕ +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpibmphysicaldisksensor ▪ physicaldisk ▪ snmpibm ▪ ibm
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

IBM System X Physical Disk Settings

IBM System X Physical Disk Settings Disk **i**

IBM System X Physical Disk Settings


Setting	Description
Disk	<p>Shows the ID of the physical disk that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display Primary Channel **i** Downtime


Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none">▪ Show channels independently (default): Show a graph for each channel.▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling ³⁹⁷⁷ (available in the channel settings ³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Disk Status	<p>The disk status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Completed, In Service, Ok, Power Mode ▪ Warning status: Dormant, Predictive Failure, Starting, Stressed

Channel	Description
	<ul style="list-style-type: none">▪ Down status: Aborted, Degraded, Error, Lost Communication, No Contact, Non-Recoverable Error, Other, Stopped, Stopping, Supporting Entity In Error, Unknown <p> This channel is the primary channel by default.</p>
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

More

KNOWLEDGE BASE

What are the requirements to monitor IBM System x?

- <https://kb.paessler.com/en/topic/59393>

IBM System X sensors could not find any disk/data on this device (PE187/PE188/PE194)

- <https://kb.paessler.com/en/topic/73914>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

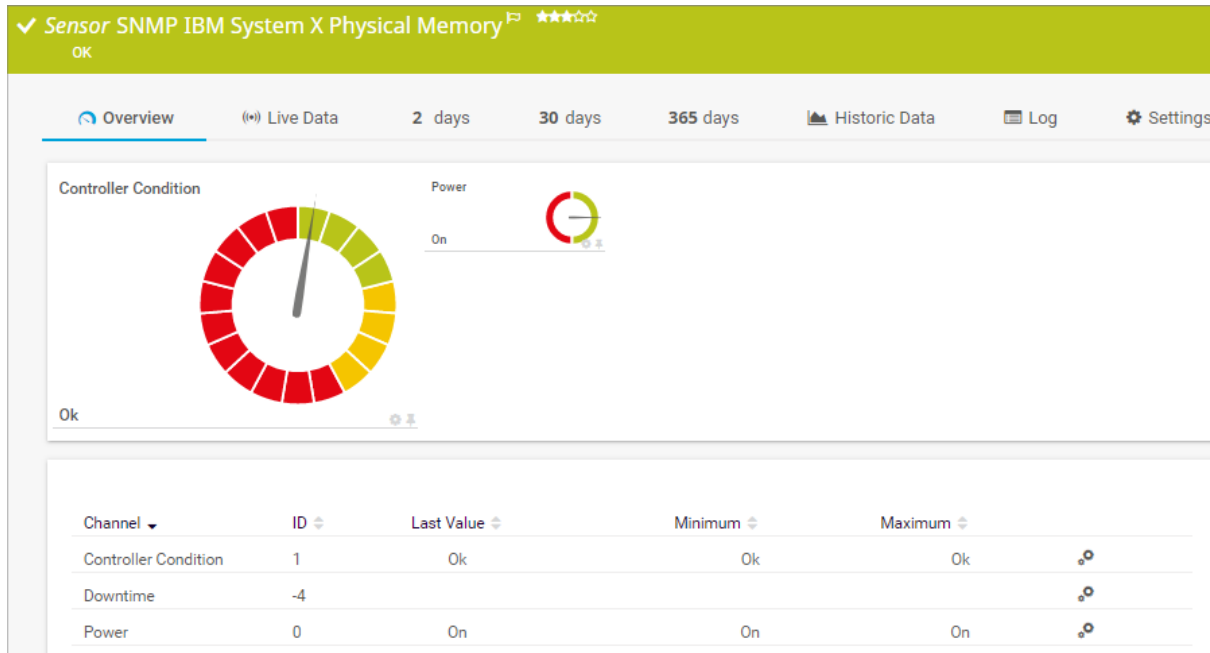
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.176 SNMP IBM System X Physical Memory Sensor

The SNMP IBM System X Physical Memory sensor monitors the memory modules in an IBM server via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP IBM System X Physical Memory Sensor

Sensor in Other Languages

- Dutch: SNMP IBM System X Physical Memory
- French: Mémoire physique SNMP IBM System X
- German: SNMP IBM System X Physikalischer Speicher
- Japanese: SNMP IBM System X 物理メモリ
- Portuguese: Memória física do IBM System X SNMP
- Russian: IBM System X SNMP
- Simplified Chinese: SNMP IBM 系统 X 物理内存
- Spanish: Memoria física de IBM System X con SNMP

Remarks

- This sensor requires the IBM Systems Director Platform to be installed on the target device.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

- See the Knowledge Base: [What are the requirements to monitor IBM System x?](#)
- See the Knowledge Base: [IBM System X sensors could not find any disk/data on this device \(PE187/PE188/PE194\)](#)

Detailed Requirements

Requirement	Description
IBM Systems Director Platform Agent	<p>This sensor needs the IBM Systems Director Platform Agent to be installed on the target IBM device to monitor it via SNMP.</p> <p>■ For more information, see the Knowledge Base: What are the requirements to monitor IBM System x?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

IBM System X Physical Memory Settings

Setting	Description
Modules	<p>Select the memory modules that you want to monitor. PRTG creates one sensor for each memory module that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag X +

Priority ⓘ ★ ★ ★ ☆ ☆

Example Name

exampletag X +

★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpibmphysicalmemorysensor ▪ memorycontroller ▪ snmpibm ▪ ibm
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

IBM System X Physical Memory Settings

IBM System X Physical Memory Settings

Name **i** DIMM 1:Bank 1

Caption **i** System Memory

Serial Number **i** [Redacted]

Size **i** 1024 MB

IBM System X Physical Memory Settings

Setting	Description
Name	Shows the name of the memory module that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Caption	Shows the caption of the memory module that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Serial Number	Shows the serial number of the memory module that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Size	Shows the size of the memory module that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.




Sensor Display

Sensor Display


Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

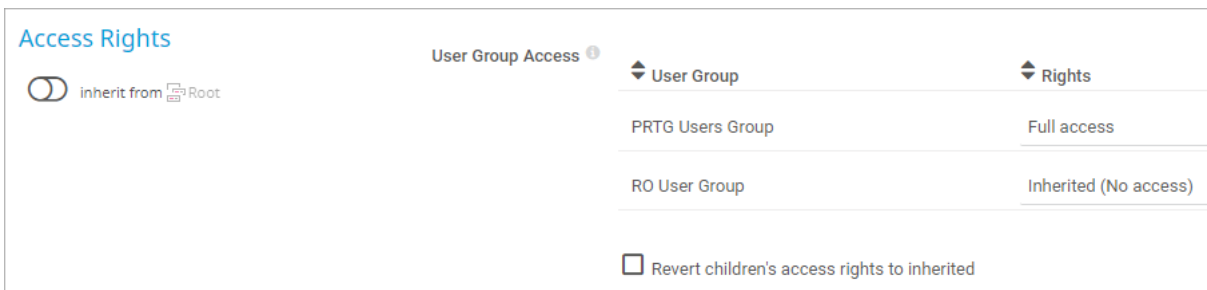
Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**


Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Controller Condition	<p>The condition of the memory controller</p> <ul style="list-style-type: none"> Up status¹⁹⁷: Completed, In Service, Ok, Power Mode Warning status: Dormant, Predictive Failure, Starting, Stressed Down status: Aborted, Degraded, Error, Lost Communication, No Contact, Non-Recoverable Error, Other, Stopped, Stopping, Supporting Entity In Error, Unknown <p> This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Power	<p>The power status</p> <ul style="list-style-type: none"> Up status: On Down status: Off

More

■ KNOWLEDGE BASE

What are the requirements to monitor IBM System x?

- <https://kb.paessler.com/en/topic/59393>

IBM System X sensors could not find any disk/data on this device (PE187/PE188/PE194)

- <https://kb.paessler.com/en/topic/73914>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷

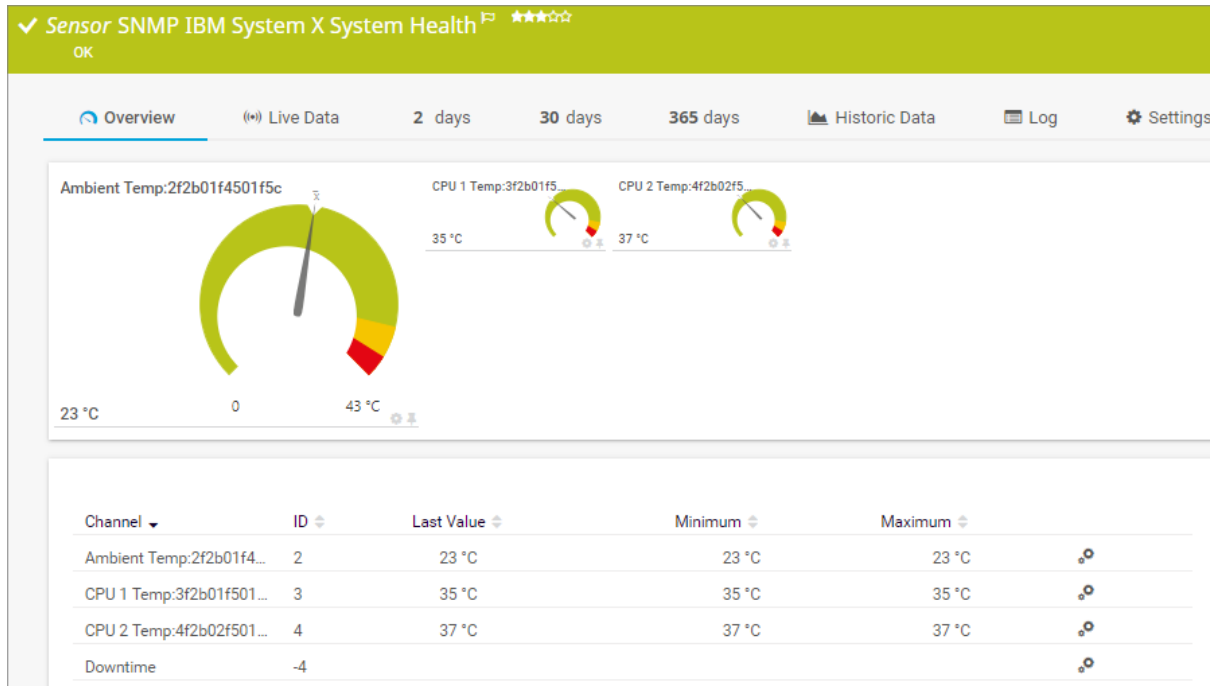
Part 7: Device and Sensor Setup | 8 Sensor Settings
176 SNMP IBM System X Physical Memory Sensor

- [Notification Triggers Settings](#) 

7.8.177 SNMP IBM System X System Health Sensor

The SNMP IBM System X System Health sensor monitors the system health of an IBM device via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP IBM System X System Health Sensor

Sensor in Other Languages

- Dutch: SNMP IBM System X System Health
- French: État du système IBM System X SNMP
- German: SNMP IBM System X Systemzustand
- Japanese: SNMP IBM System X システムの正常性
- Portuguese: Funcionamento do sistema IBM System X SNMP
- Russian: IBM System X SNMP
- Simplified Chinese: SNMP IBM 系统 X 系统健康状况
- Spanish: Salud del sistema de IBM System X con SNMP

Remarks

- This sensor requires the IBM Systems Director Platform to be installed on the target device.
- This sensor can also run directly on an Integrated Management Module (IMM) network port and can show the overall health of IMMs.

- If the IBM device returns a string in an unexpected format for the percentage of fan revolutions (for example, "offline"), this sensor shows -1% in the corresponding channel. You can define the Down status for this via [channel limits](#) ³⁹⁷⁸.
- This sensor has predefined limits for several metrics. You can individually change these limits in the channel settings. For detailed information about channel limits, see section [Channel Settings](#) ³⁹⁷⁷.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#) ⁴⁴⁸⁵.
- See the Knowledge Base: [What are the requirements to monitor IBM System x?](#)
- See the Knowledge Base: [IBM System X sensors could not find any disk/data on this device \(PE187/PE188/PE194\)](#)

Detailed Requirements

Requirement	Description
IBM Systems Director Platform Agent	<p>This sensor needs the IBM Systems Director Platform Agent to be installed on the target IBM device to monitor it via SNMP.</p> <p>■ For more information, see the Knowledge Base: What are the requirements to monitor IBM System x?</p>

i The SNMP IBM System X System Health sensor can also run directly on an IMM network port and can show the overall health of IMM's.

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

IBM System X System Health Specific

Setting	Description
Measurements	Select the measurements that you want to monitor. PRTG creates one sensor for each measurement that you select.

Setting	Description
	<p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus sign, and a 'Priority' field with five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpibmsystemhealthsensor ▪ systemhealth
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

IBM System X System Health Specific

IBM System X System Health Specific

Source ⓘ *Integrated Management Module*

Measurement ⓘ *Fans*

IBM System X System Health Settings

Setting	Description
Source	<p>Shows the source of the measurement that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Measurement	<p>Shows the type of measurement that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display




Primary Channel ⓘ Downtime

Graph Type ⓘ


Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights


inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Ambient Temp	The ambient temperature
CMOS Battery	The CMOS battery voltage in millivolts (mV)
CPU [#] Temp	The CPU temperature
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Fan [#] Tach	The fan revolutions per minute (RPM) or the percentage of the possible maximum
Overall Status	The overall system health <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Normal, System Level ▪ Warning status: Non Critical ▪ Down status: Critical
SysBrd 3.3V	The 3.3V-system board voltage in mV
SysBrd 5V	The 5V-system board voltage in mV
SysBrd 12V	The 12V-system board voltage in mV

More

■ KNOWLEDGE BASE

What are the requirements to monitor IBM System x?

- <https://kb.paessler.com/en/topic/59393>

IBM System X sensors could not find any disk/data on this device (PE187/PE188/PE194)

- <https://kb.paessler.com/en/topic/73914>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

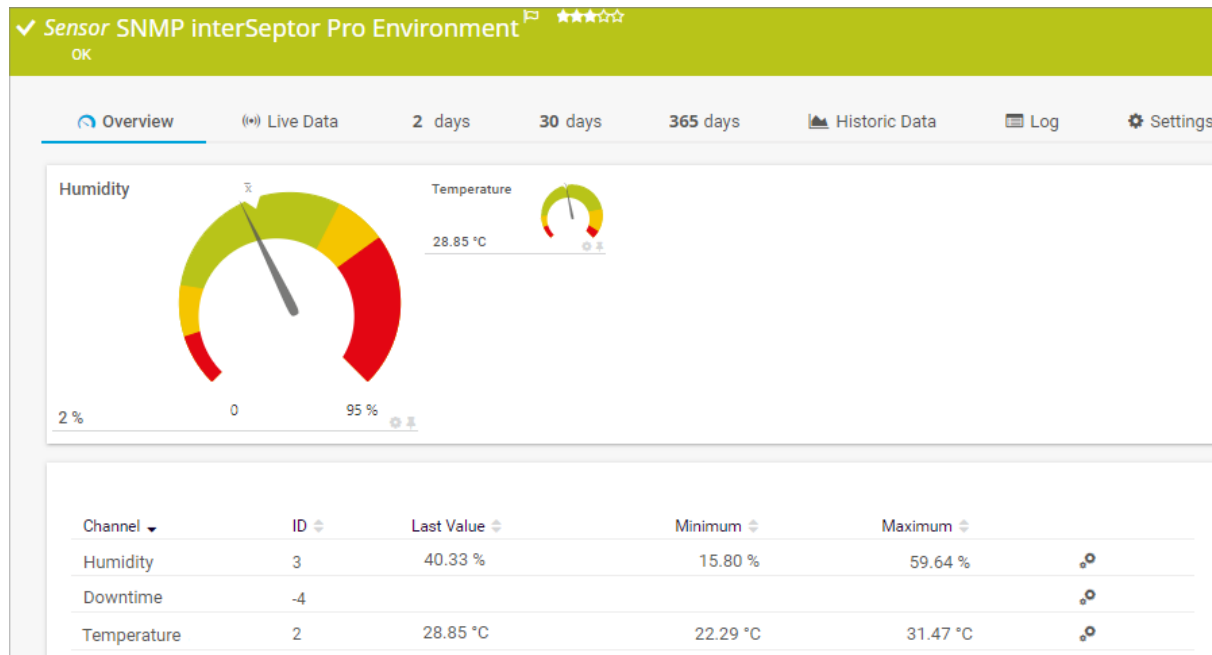
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.178 SNMP interSeptor Pro Environment Sensor

The SNMP interSeptor Pro Environment sensor queries data from a Jakarta interSeptor Pro environmental monitoring system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP interSeptor Pro Environment Sensor

Sensor in Other Languages

- Dutch: SNMP interSeptor Pro Omgeving
- French: Environnement interSeptor Pro SNMP
- German: SNMP interSeptor Pro Umgebung
- Japanese: SNMP interSeptor Pro 環境
- Portuguese: Ambiente do SNMP interSeptor Pro
- Russian: interSeptor Pro SNMP
- Simplified Chinese: SNMP interSeptor Pro 环境
- Spanish: Entorno de interSeptor Pro de SNMP

Remarks

- To monitor data of an interSeptor Pro device with this sensor, you have to add the IP address of your PRTG core server system to Access Control in the interSeptor Pro control panel. Open the interSeptor Pro web interface, select InterSeptor Pro Menu | System Configuration | Access Control, and allow access for the IP address of PRTG.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

InterSeptor Environment Specific

Setting	Description
Measuring Point	<p>Select the measuring points that you want to monitor. PRTG creates one sensor for each measuring point that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited . ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ interseptor ▪ environment
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

InterSeptor Environment Specific

InterSeptor Environment Specific

Name ⓘ *Sensor1-1*

Measuring Point ⓘ *0*

InterSeptor Environment Specific

Setting	Description
Name	Shows the name of the measuring point that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Setting	Description
Measuring Point	Shows the measuring point that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.


Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.


For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
<input type="radio"/> inherit from  Root	Scanning Interval ⓘ 60 seconds
	If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None


Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays


Setting	Description
	<ul style="list-style-type: none"> ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency.


Setting	Description
	<ul style="list-style-type: none"> Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies [4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector [251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Humidity	The humidity in percent
Temperature	The temperature

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

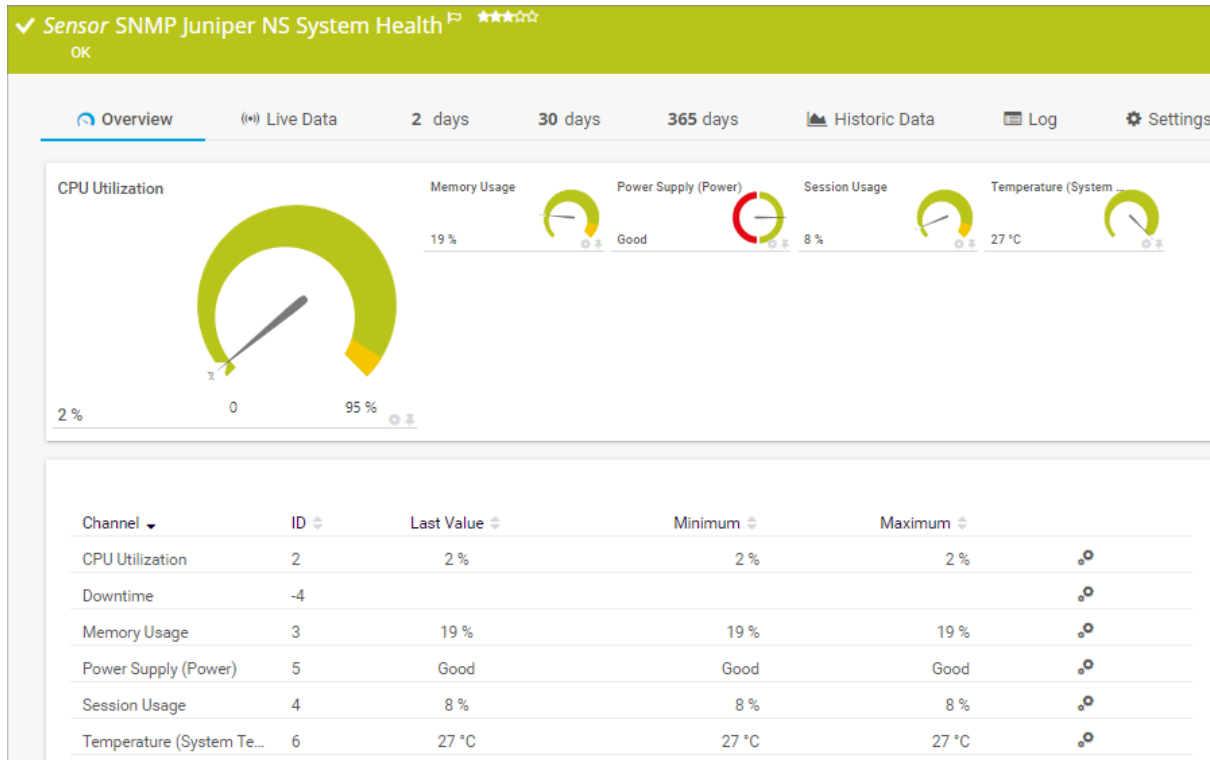
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.179 SNMP Juniper NS System Health Sensor

The SNMP Juniper NS System Health sensor monitors the system health of a Juniper NetScreen device via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Juniper NS System Health Sensor

Sensor in Other Languages

- Dutch: SNMP Juniper NS systeemstatus
- French: État du système SNMP Juniper NS
- German: SNMP Juniper NS Systemzustand
- Japanese: SNMP Juniper NS のシステム正常性
- Portuguese: Funcionamento do sistema Juniper NS SNMP
- Russian: Juniper NS SNMP
- Simplified Chinese: SNMP Juniper NS 系统健康状况
- Spanish: Salud del sistema NS de Juniper SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpjuniper ▪ systemhealth
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click  to interrupt the [inheritance](#).

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB ▾
	kbit ▾
	/ ▾
	sec... ▾
Bytes (Memory)	MB ▾
Bytes (Disk)	MB ▾
Bytes (File)	Byte ▾

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU Utilization	<p>The CPU usage in percent</p> <p>ⓘ This channel is the primary channel by default.</p>

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Memory Usage	The memory usage in percent
Power Supply (Power)	The status of the power supply <ul style="list-style-type: none"> Up status¹⁹⁷: Good Down status: Fail
Session Usage	The session usage in percent
Temperature (System Temperature)	The system temperature

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

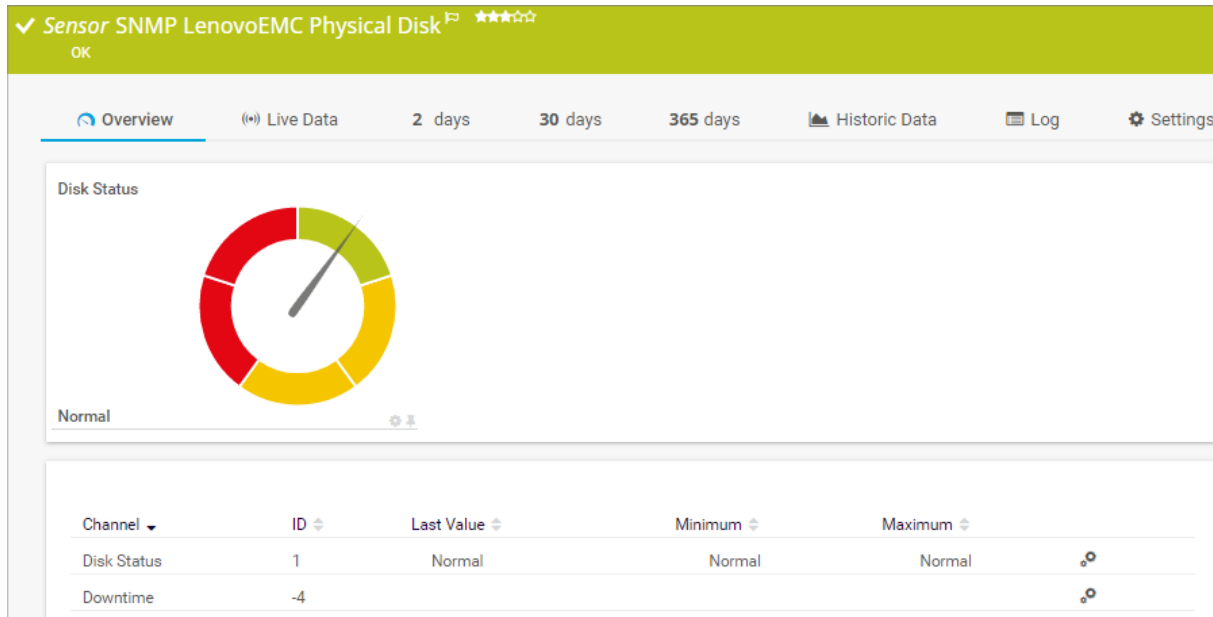
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.8.180 SNMP LenovoEMC Physical Disk Sensor

The SNMP LenovoEMC Physical Disk sensor monitors a physical disk in a LenovoEMC network-attached storage (NAS) via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP LenovoEMC Physical Disk Sensor

Sensor in Other Languages

- Dutch: SNMP LenovoEMC fysieke schijf
- French: Disque physique SNMP LenovoEMC
- German: SNMP LenovoEMC Physikalischer Datenträger
- Japanese: SNMP LenovoEMC 物理ディスク
- Portuguese: Disco físico LenovoEMC SNMP
- Russian: LenovoEMC SNMP
- Simplified Chinese: SNMP LenovoEMC 物理磁盘
- Spanish: Disco físico de LenovoEMC con SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

LenovoEMC NAS Settings

Setting	Description
Disk	<p>Select the physical disks that you want to monitor. PRTG creates one sensor for each physical disk that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited . ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ snmplenovoemc ▪ lenovoemc ▪ physicaldisk
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

LenovoEMC NAS Settings

LenovoEMC NAS Settings

Disk ⓘ	1
Name ⓘ	Disk 1
Size ⓘ	1863.02GB

LenovoEMC NAS Settings

Setting	Description
Disk	Shows the ID of the physical disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Name	Shows the name of the physical disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Size	Shows the size of the physical disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ⓘ).

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p> i You can change the available intervals in the system administration on PRTG on premises installations. </p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p> i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply. </p> <p> i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply. </p> <p> i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply. </p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Disk Status	<p>The overall disk status</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: Normal ▪ Warning status: Foreign, Unknown ▪ Down status: Faulted, Missing <p> This channel is the primary channel by default.</p>

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

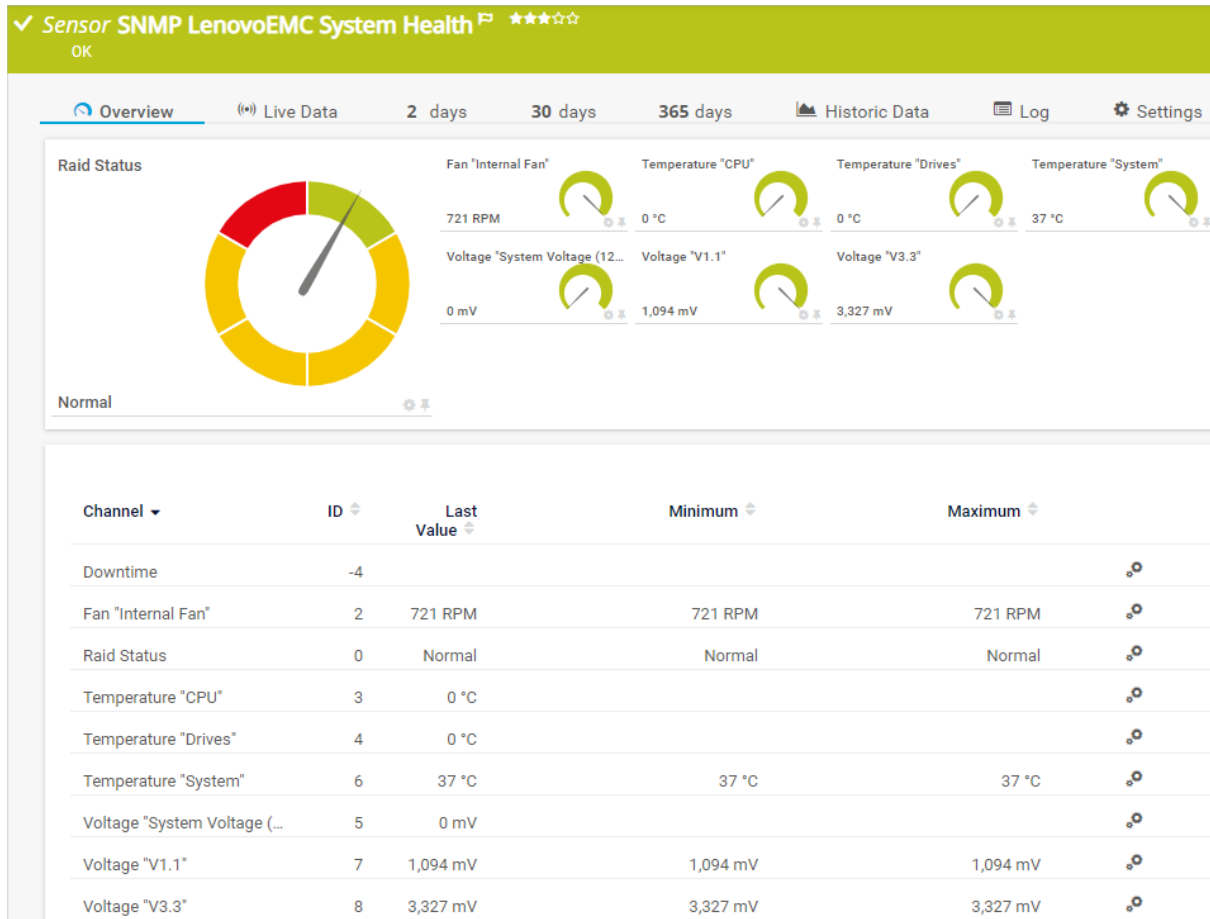
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3957

7.8.181 SNMP LenovoEMC System Health Sensor

The SNMP LenovoEMC System Health sensor monitors the system health of a LenovoEMC network-attached storage (NAS) via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP LenovoEMC System Health Sensor

Sensor in Other Languages

- Dutch: SNMP LenovoEMC Systeem Status
- French: État du système SNMP LenovoEMC
- German: SNMP LenovoEMC Systemzustand
- Japanese: SNMP LenovoEMC システム正常性
- Portuguese: Funcionamento do sistema LenovoEMC SNMP
- Russian: LenovoEMC SNMP
- Simplified Chinese: SNMP LenovoEMC 系统健康状况
- Spanish: Estado del sistema de LenovoEMC del SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A text input field containing "exampletag" with a blue 'x' icon to the right and a plus sign icon to the left of the input area.
- Priority:** A section with five star icons, all of which are filled, indicating a priority of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p>

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmplenovoemc ▪ lenovoemc ▪ systemhealth
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display


Sensor Display

Primary Channel **i** Downtime


Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p> <ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic.  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷).

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
Fan "Internal Fan"	The fan revolutions per minute (RPM)
Raid Status	<p>The status of the redundant array of independent disks (RAID)</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Normal ▪ Warning status: Degraded, RebuildFS, Rebuilding, Unknown ▪ Down status: Faulted <p> This channel is the primary channel by default.</p>
Temperature "CPU"	The temperature of the CPU
Temperature "Drives"	The temperature of the drives
Temperature "System"	The temperature of the system
Voltage "System Voltage (12V)"	The system voltage (12V) in millivolts (mV)
Voltage "V1.1"	The voltage of the 1.1V-battery in mV
Voltage "V3.3"	The voltage of the 3.3V-battery in mV

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

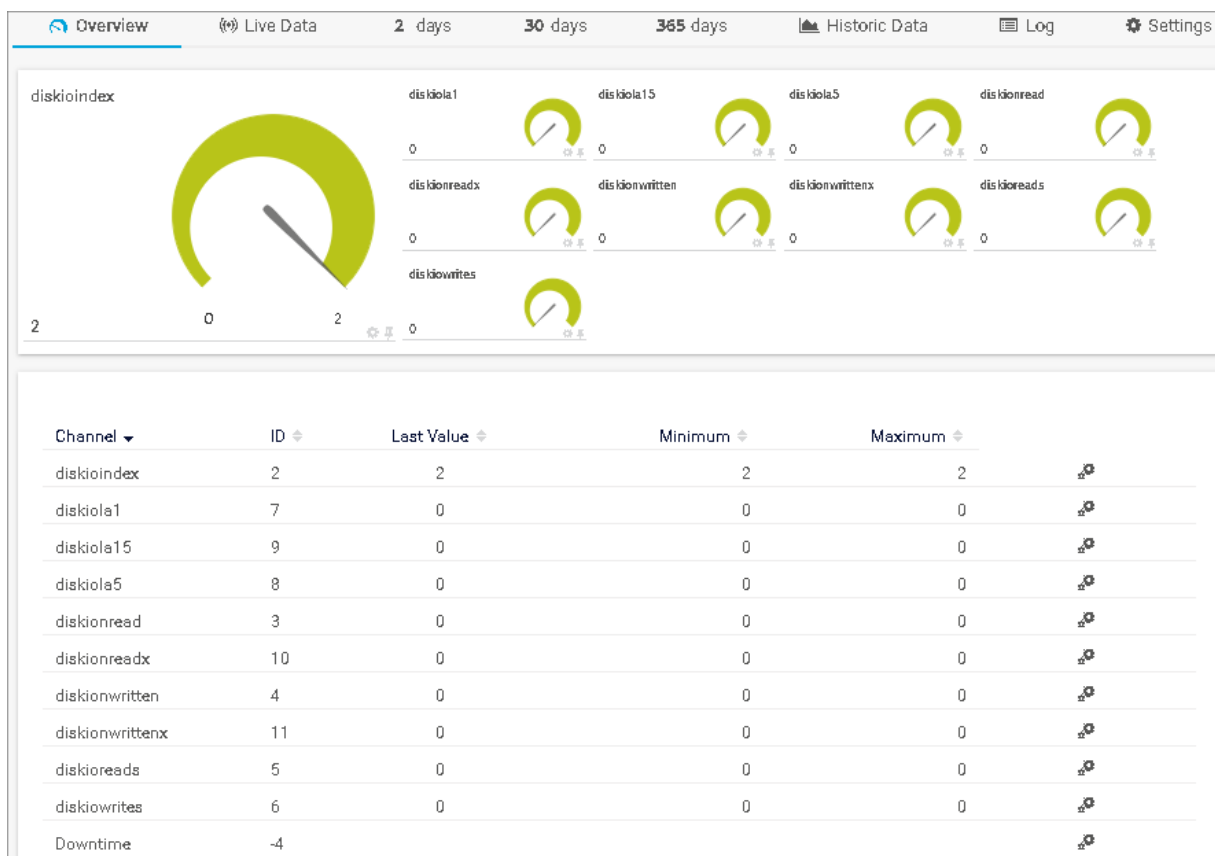
7.8.182 SNMP Library Sensor

The SNMP Library sensor uses a Management Information Base (MIB) file to create sensors that monitor a device via the Simple Network Management Protocol (SNMP).

- ❶ The content of the MIB file determines which data types are available for monitoring. When you create the sensor, it provides a list of counters that the target device returns based on every object identifier (OID) in the MIB file.
- ❷ The SNMP Library sensor does not appear as a running sensor. It uses the meta-scan facility of the probe to find or to match OIDs from the MIB file. It is useful because you do not have to manually enter OIDs.

To monitor SNMP-capable devices and to add sensors via the SNMP Library sensor, download the manufacturer's MIB files for the target device, convert the MIB files to the [OID library](#) format, and [import](#) them into PRTG. PRTG also provides [precompiled .oidlib files](#) that contain the OIDs of SNMP counters for the most common network devices.

For more information, see the Knowledge Base: [How do SNMP, MIBs and OIDs work?](#)



SNMP Custom Advanced Sensor Created by SNMP Library Sensor

Sensor in Other Languages

- Dutch: [SNMP Bibliotheek](#)
- French: [Bibliothèque SNMP](#)
- German: [SNMP-Bibliothek](#)


- Japanese: SNMP ライブラリ
- Portuguese: Biblioteca SNMP
- Russian: SNMP
- Simplified Chinese: SNMP 库
- Spanish: Biblioteca SNMP

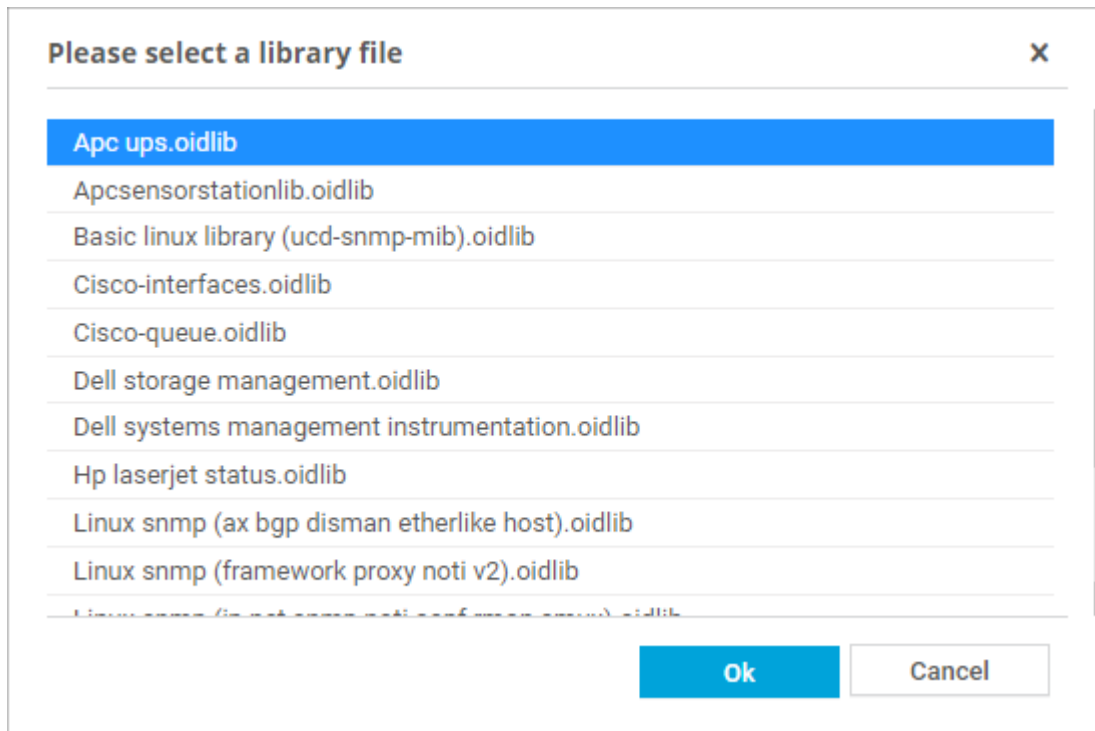
Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- See the Knowledge Base: [How do SNMP, MIBs and OIDs work?](#)
- See the Knowledge Base: [How can I import my MIB files into PRTG?](#)
- See the Knowledge Base: [Can't find a sensor for my device in PRTG but I believe it supports SNMP. How to proceed?](#)

☁ To import MIB files into PRTG Hosted Monitor, [contact the Paessler support team](#) .

Add Sensor

PRTG shows a list of .oidlib files that are available on the system. This list contains all library files in the \snmplibs subfolder of the [PRTG program directory](#) . It contains both the default PRTG library files and your own library files.



List of SNMP Library Files

The library file names in the list indicate their purpose. Select a library file that is suitable for the target device (for example, choose an MIB file that you imported) and confirm via Ok.

i If the library file not suitable for the target device, this results in the error message [The scan for available monitoring items has failed on this device: No such object \(SNMP error # 222\)](#). If you see this message, click Cancel and try to add the sensor with a different library file.

The SNMP Library sensor takes a list of OIDs that you import from an MIB file into an `.oidlib` file and tests the OIDs against the target device to find the OIDs that the target device supports. This discovery process is the [meta-scan](#). If the sensor finds counters for the target device, the sensor settings open with a list of all available monitoring items.

The screenshot shows the 'SNMP Library Specific' configuration window. The library path is `C:\Program Files (x86)\PRTG Network Monitor\snmplibs\Linux SNMP (Framework Proxy Noti v2).oidlib`. Below the path is a search bar and a table of 'Library OIDs'. The table has columns for 'MIB Module', 'Category', and 'Name'. The visible rows are:

<input type="checkbox"/>	MIB Module	Category	Name
<input type="checkbox"/>	SNMP-MPD-MIB	snmpmpdstats	snmp unknown security models
<input type="checkbox"/>	SNMP-MPD-MIB	snmpmpdstats	snmp unknown pdu handlers
<input type="checkbox"/>	SNMP-MPD-MIB	snmpmpdstats	snmp invalid msgs
<input type="checkbox"/>	SNMPv2-MIB	sysor: 1	sysorup time
<input type="checkbox"/>	SNMPv2-MIB	sysor: 10	sysorup time
<input type="checkbox"/>	SNMPv2-MIB	sysor: 2	sysorup time

At the bottom, there is a red error message: **This field is required.** Below the table, there are radio buttons for 'If Value Changes': Ignore changes and Trigger 'change' notification.

List of SNMP Single Values: Sorted by MIB, Category, Name

The screenshot shows the 'SNMP Library Specific' configuration window. The library path is `C:\Program Files (x86)\PRTG Network Monitor\snmplibs\Linux SNMP (Source TCP UCD UDP).oidlib`. Below the path is a search bar and a table of 'Library OIDs'. The table has columns for 'MIB Module', 'Category', and 'Name'. The visible rows are:

<input type="checkbox"/>	MIB Module	Category	Name
<input type="checkbox"/>	UCD-DISKIO-MIB	diskio: 19	diskioindex
<input type="checkbox"/>	UCD-DISKIO-MIB	diskio: 2	diskiowrites
<input type="checkbox"/>	UCD-DISKIO-MIB	diskio: 2	diskioreads
<input type="checkbox"/>	UCD-DISKIO-MIB	diskio: 2	diskionwrittenx
<input type="checkbox"/>	UCD-DISKIO-MIB	diskio: 2	diskionwritten
<input type="checkbox"/>	UCD-DISKIO-MIB	diskio: 2	diskionwritten

At the bottom, there is a red error message: **This field is required.** Below the table, there are radio buttons for 'If Value Changes': Ignore changes and Trigger 'change' notification.

List of SNMP Table Values: Sorted by MIB, Category (Table Name/OID), Row, Name

The list of SNMP table values sequentially presents row values to help you find the values you are interested in.

- ⓘ You can also use the search function to find the desired group or category. The search matches individual strings, so if your string has a space in it, put the search string in quotes.

Select the counters that you want to monitor and click Save. PRTG creates sensors based on the OID types of the selected counters.

Add Sensor Settings

Setting	Description
Library	<p>Shows the path to the .oidlib file that this sensor uses.</p> <ul style="list-style-type: none"> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Library OIDs	<p>Select the parameters that you want to monitor. The list is specific to your setup. The list contains all counters that are available in the .oidlib file that match the target device. Select one or more items by adding a check mark in front of the respective line.</p> <ul style="list-style-type: none"> ⓘ You can also select all items or cancel the selection by using the check box in the table header. <p>Depending on the type of the selected entries, PRTG creates the following sensors:</p> <ul style="list-style-type: none"> ▪ SNMP Custom Advanced sensor²⁴⁶⁴: For up to 10 channels for 10 OIDs each. For example, 22 selected single values result in 3 sensors: 2 sensors with 10 channels and 1 sensor with 2 channels. ▪ SNMP Custom String sensor²⁴⁷⁵: For each selected entry that returns a string value. ▪ SNMP Custom Table sensor²⁵⁰⁰: For up to 10 channels for 10 columns per row. The channels represent the values in the columns of the same row. <ul style="list-style-type: none"> ⓘ Once you create a custom SNMP sensor, you can create a device template⁴⁰¹⁹ from it and prepare it for distribution. For example, you can refine the template with better name templates.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ ⊕

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmplibrarysensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Specific

The available sensor settings depend on the sensor that the SNMP Library sensor creates. For details about settings, see the sections of these sensors:

- [SNMP Custom Advanced sensor](#) ²⁴⁶⁷
- [SNMP Custom String sensor](#) ²⁴⁷⁷
- [SNMP Custom Table sensor](#) ²⁵⁰⁵


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
<input type="radio"/> inherit from  Root	Scanning Interval ⓘ 60 seconds
	If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None


Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays


Setting	Description
	<ul style="list-style-type: none"> ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency.


Setting	Description
	<ul style="list-style-type: none"> Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies [4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector [251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Import MIB Files

✂ Additionally, you can create your own `.oidlib` files by importing the device manufacturers' MIB files with the free [MIB Importer](#) tool. You can convert your MIB files and save the `.oidlib` file results to the `\snmplibs` subfolder of the [PRTG program directory](#) ⁴⁵²⁶.

■ For more information about the MIB Importer, see the Knowledge Base: [How can I import my MIB files into PRTG?](#)

If the `.oidlib` files that you import contain [lookups](#) ⁴⁴⁸⁵ (you can see this in section Lookup in the MIB Importer), you can define your own sensor states for the values that the lookups return. Add an SNMP Library sensor with this `.oidlib` file. PRTG then creates a lookup definition file using the lookupname of the chosen library as id parameter.

ⓘ PRTG adds the lookups without status definitions, so the sensor shows the Warning [status](#) ¹⁹⁷ by default. You have to edit the corresponding lookup files to get reliable alarms. Override the lookup definition with your own custom lookup. For more information, see section [Define Lookups](#) ⁴⁴⁹¹.

☁ To import MIB files into PRTG Hosted Monitor, [contact the Paessler support team](#) ⁴²⁶⁶.

Default .oidlib Files Overview

PRTG comes with the following `.oidlib` files.

ⓘ The `.oidlib` files might not support all devices or parameters.

.oidlib File	Description
APC UPS.oidlib	Monitors uninterruptible power supplies (UPSs) from APC American Power Conversion Corp.
APCSensorstationlib.oidlib	Monitors alarm status, communication status, humidity, and temperature as shown by an APC sensor station.
Basic Linux Library (UCD-SNMP-MIB).oidlib	Monitors basic system parameters on Linux systems, such as memory, disk and swap, CPU, and more.
cisco-interfaces.oidlib	Monitors Cisco-specific parameters, for example, the number of present network interfaces on a system, several states of an interface (admin, oper, speed, type, errors, discards, etc.), and more.
cisco-queue.oidlib	Monitors queues on a Cisco interface, for example, queue depth and its maximum, discarded messages from the queue, the number of the queue within the queue set, and more.
Dell Storage Management.oidlib	Monitors Dell storage devices. Possible parameters include disk arrays, battery and power supply, fan and temperature, virtual disk, and more.
Dell Systems Management Instrumentation.oidlib	Monitors the hardware of Dell systems. Possible parameters include ACPower and battery, alerts, base board, BIOS, Baseboard Management Controller (BMC), chassis, COO, cooling, event log, firmware, integrated development environment (IDE), keyboard, memory, port, network, processor, Small Computer System Interface (SCSI), system, temperature, USB, universally unique identifier (UUID), and more.
HP LaserJet Status.oidlib	Monitors toner, paper, and jam status of an HP LaserJet printer.
Linux SNMP (AXBGP DisMan EtherLike Host).oidlib	<p>Monitors different aspects of Linux systems.</p> <p>i This file might detect a very large number of interfaces. It might take a few seconds until the selection table appears.</p>
Linux SNMP (Framework Proxy Noti v2).oidlib	<p>Monitors different aspects of Linux systems.</p> <p>i This file might detect a very large number of interfaces. It might take a few seconds until the selection table appears.</p>

.oidlib File	Description
Linux SNMP (IP Net SNMP Noti OSPF RMON SMUX).oidlib	Monitors different aspects of Linux systems. i This file might detect a very large number of interfaces. It might take a few seconds until the selection table appears.
Linux SNMP (Source TCP UCD UDP).oidlib	Monitors different aspects of Linux systems. i This file might detect a very large number of interfaces. It might take a few seconds until the selection table appears.
Paessler Common OID Library.oidlib	Monitors many common hardware devices. It is used for several sensors and is encrypted.
SNMP Informant std.oidlib	Monitors logical disks, processor, memory, and network interface on Windows systems.

More

KNOWLEDGE BASE

How do SNMP, MIBs, and OIDs work?

- <https://kb.paessler.com/en/topic/653>

How can I import my MIB files into PRTG?

- <https://kb.paessler.com/en/topic/733>

Can't find a sensor for my device in PRTG but I believe it supports SNMP. How to proceed?

- <https://kb.paessler.com/en/topic/65638>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

How can I monitor EMC Isilon storage systems with PRTG?

- <https://kb.paessler.com/en/topic/71413>

PAESSLER TOOLS





MIB Importer

Part 7: Device and Sensor Setup | 8 Sensor Settings
182 SNMP Library Sensor

- <https://www.paessler.com/tools/mibimporter>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

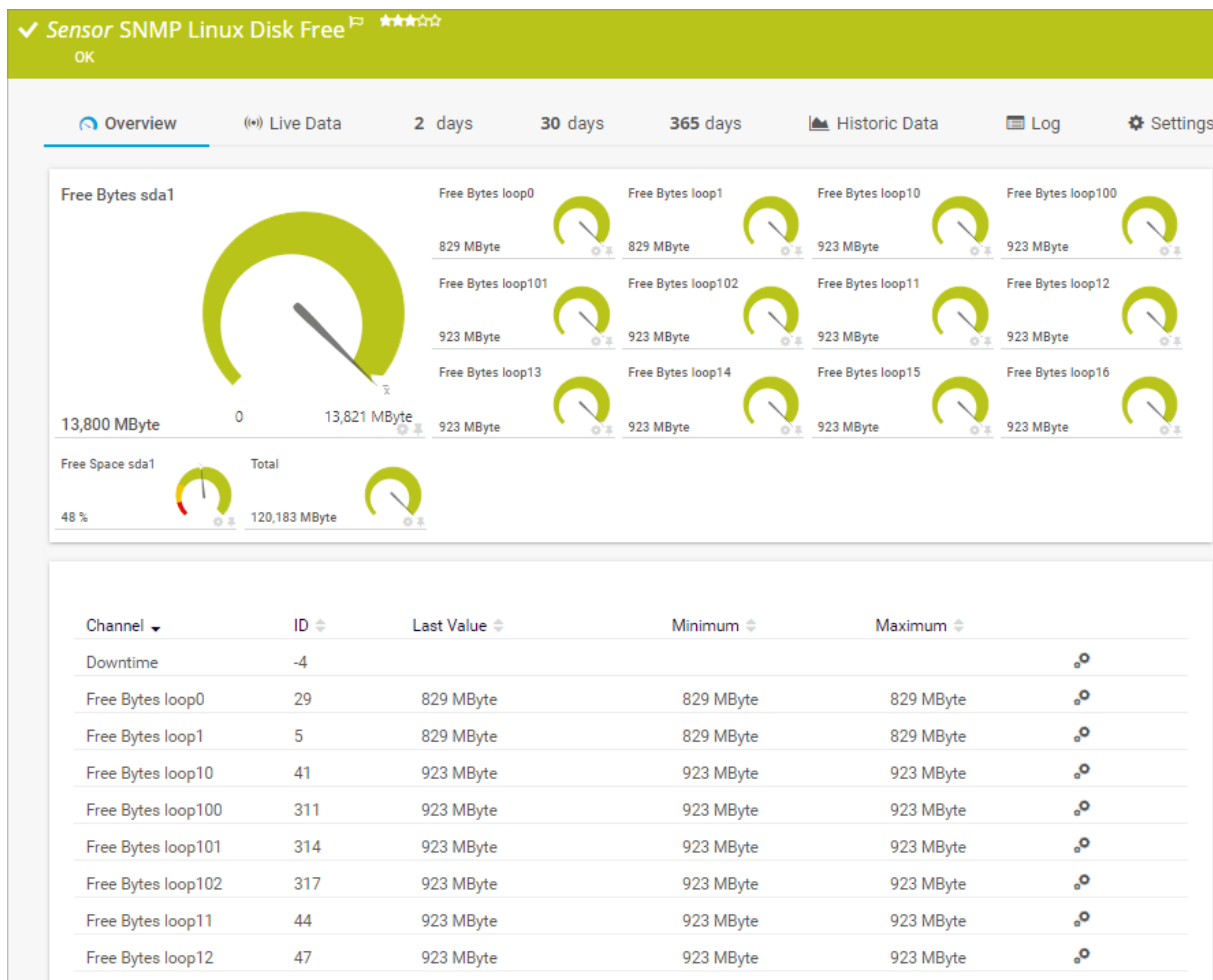
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.183 SNMP Linux Disk Free Sensor

The SNMP Linux Disk Free sensor monitors the free space on disks of a Linux/Unix system via the Simple Network Management Protocol (SNMP).

The free space that this sensor returns shows the disk space that is not yet used. Not all of this space may be available for use because a part of this space may be reserved by the system, for example, for redundancy purposes. For details, see the Knowledge Base: [Why do SSH Disk Free and SNMP Linux Disk Free show different values for my target Linux system?](#)

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Linux Disk Free Sensor

Sensor in Other Languages

- Dutch: SNMP Linux vrije schijf ruimte
- French: Espace disque libre SNMP Linux
- German: SNMP Linux-Datenträgerspeicher
- Japanese: SNMP Linux ディスクの空き容量
- Portuguese: Disco livre Linux SNMP

- Russian: Linux SNMP
- Simplified Chinese: SNMP Linux 磁盘可用空间
- Spanish: SNMP disco libre Linux

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- See the Knowledge Base: [Why do SSH Disk Free and SNMP Linux Disk Free show different values for my target Linux system?](#)
- See the Knowledge Base: [Monitoring Linux problem - SNMP port not reachable](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpdiskfreesensor ▪ diskspacesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Set Limits Checked for ALL Disks

In this section, you can set limits that are valid for all channels and all drives. With limits, you can define when the sensor shows the Warning or Down [status](#)^[197], depending on the data provided by all drives that this sensor monitors. If you want to individually define limits for separate channels, use the limit settings in the [channel settings](#)^[397].

i All limits that you define here are valid in addition to the limits in the particular Channel settings. The limits are valid simultaneously, so the first limit that is breached applies.

Set Limits Checked For ALL Disks

Use the channel settings to set separate error limits or warning limits for each disk.

Percentage Limit Check ⓘ Only use the limits in the settings of the percentage channels
 Use the limits of both the sensor and the channel settings

Upper Error Limit ⓘ

Upper Warning Limit ⓘ

Lower Warning Limit ⓘ 25






Lower Error Limit ⓘ 10

Size Limit Check ⓘ Only use the limits in the settings of the byte size channels
 Use the limits of both the sensor and the channel settings

Alarm on Missing/Removed Disk ⓘ Deactivate alarm (default)
 Activate alarm

Set Limits Checked For ALL Disks

Setting	Description
Percentage Limit Check	<p>Enable or disable a limit check for the free space in percentage channels of all drives. By default, the sensor enables percentage limits with a lower warning limit and a lower error limit. Choose between:</p> <ul style="list-style-type: none"> Only use the limits in the settings of the percentage channels: Do not define sensor limits that are valid for all percentage channels. The sensor only uses the limits that you define in the settings of the particular "free space in percent" channels to determine the status. Use the limits of both the sensor and the channel settings: Define sensor limits that are valid for all percentage channels. Additional fields appear below. The sensor shows the Warning or the Down status when free space limits are above or below the limits.
Upper Error Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify an upper limit in percent for the Down status. If the free disk space of one of your drives exceeds this value, the sensor changes to the Down status. Enter an integer value or leave the field empty.</p> <p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p>
Upper Warning Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify an upper limit in percent for the Warning status. If the free disk space of one of your drives exceeds this value, the sensor changes to the Warning status. Enter an integer value or leave the field empty.</p>

Setting	Description
Lower Warning Limit	<p> The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p> <p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify a lower limit in percent for the Warning status. If the free disk space of one of your drives falls below this value, the sensor changes to the Warning status. Enter an integer value or leave the field empty.</p>
Lower Error Limit	<p> The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p> <p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify a lower limit in percent for the Down status. If the free disk space of one of your drives falls below this value, the sensor changes to the Down status. Enter an integer value or leave the field empty.</p>
Size Limit Check	<p> The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p> <p>Enable or disable a limit check for the free bytes channels of all drives:</p> <ul style="list-style-type: none"> ▪ Only use the limits in the settings of the byte size channels: Do not define sensor limits that are valid for all byte size channels. The sensor only uses limits that you define in the settings of the particular free space in bytes channels to determine the status. ▪ Use the limits of both the sensor and the channel settings: Define limits for the sensor that are valid for all byte size channels. Additional fields appear below. The sensor shows the Warning or Down status when free space limits are above or below the value. <p> By default, byte size limits are not enabled for drives.</p>
Upper Error Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify an upper limit. Use the same unit as shown by the free bytes channels of this sensor (by default this is MB). If the free disk space of one of your drives exceeds this value, the sensor changes to the Down status. Enter an integer value or leave the field empty.</p> <p> The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p>

Setting	Description
Upper Warning Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify an upper limit. Use the same unit as shown by the free bytes channels of this sensor (by default this is MB). If the free disk space of one of your drives exceeds this value, the sensor changes to the Warning status. Enter an integer value or leave the field empty.</p> <p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p>
Lower Warning Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify a lower limit. Use the same unit as shown by the free bytes channels of this sensor (by default this is MB). If the free disk space of one of your drives falls below this value, the sensor changes to the Warning status. Enter an integer value or leave the field empty.</p> <p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p>
Lower Error Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify a lower limit. Use the same unit as shown by the free bytes channels of this sensor (by default this is MB). If the free disk space of one of your drives falls below this value, the sensor changes to the Down status. Enter an integer value or leave the field empty.</p> <p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p>
Alarm on Missing/Removed Disk	<p>If a monitored disk is removed or not found, the sensor sets the values to zero. Select the alarm approach in this case:</p> <ul style="list-style-type: none"> ▪ Deactivate alarm (default): Do not send an alert for a removed disk. ▪ Activate alarm: Send an alert if a monitored disk is removed or not found.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click ⓘ to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management^[155].</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#)^[142].

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Bytes [Partition]	The free space in bytes
Free INodes [Partition]	The free index nodes in percent
Free Space [Partition]	The free space in percent
Total	The free total disk space in bytes

More

KNOWLEDGE BASE

Why do SSH Disk Free and SNMP Linux Disk Free show different values for my target Linux system?

- <https://kb.paessler.com/en/topic/43183>

Monitoring Linux problem - SNMP port not reachable

- <https://kb.paessler.com/en/topic/5353>

What security features does PRTG include?

Part 7: Device and Sensor Setup | 8 Sensor Settings
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- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

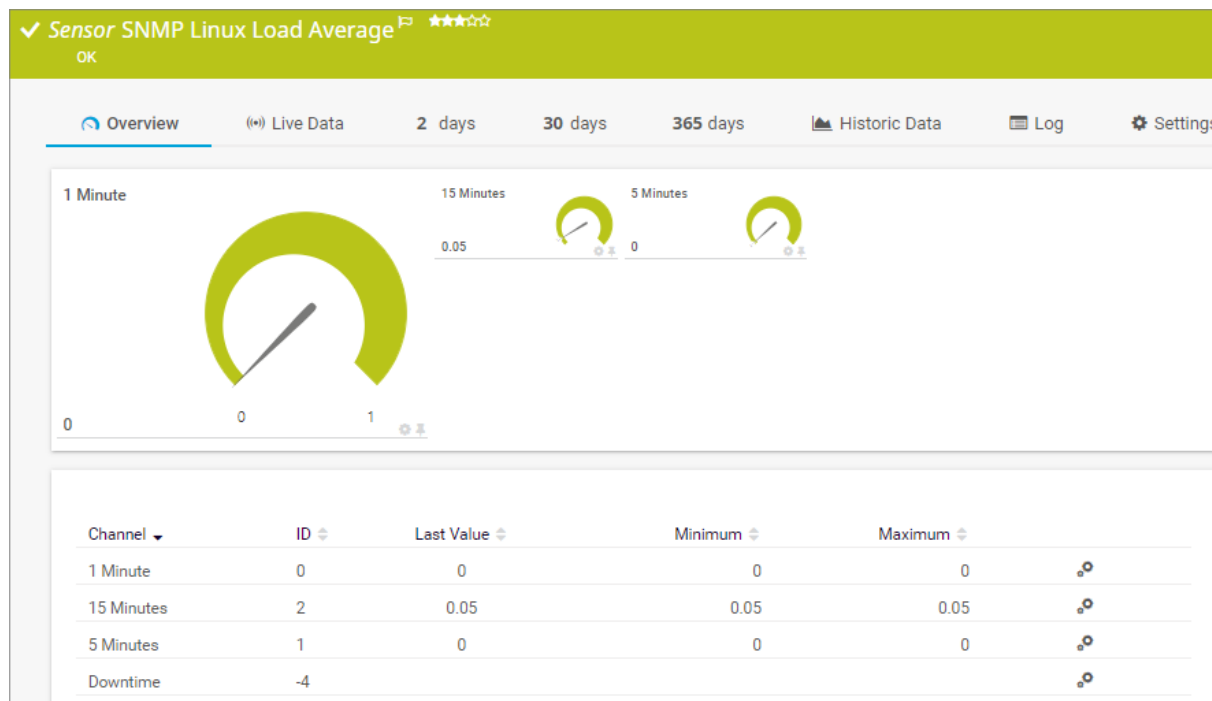
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.184 SNMP Linux Load Average Sensor

The SNMP Linux Load Average sensor monitors the system load average of a Linux/Unix system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Linux Load Average Sensor

Sensor in Other Languages

- Dutch: SNMP Linux Gemiddelde belasting
- French: Moyenne de la charge Linux SNMP
- German: SNMP Linux Durchschnittl. Last
- Japanese: SNMP Linux の負荷平均
- Portuguese: Carga média em Linux SNMP
- Russian: Linux SNMP
- Simplified Chinese: SNMP Linux 负载平均值
- Spanish: SNMP carga promedio Linux

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- See the Knowledge Base: [Monitoring Linux problem - SNMP port not reachable](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> snmploadsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display

Access Rights

inherit from Root


User Group Access i	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷).</p>
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule None ▼

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
1 Minute	<p>The average system load within a 1-minute interval</p> <p> This channel is the primary channel by default.</p>
5 Minutes	The average system load within a 5-minute scanning interval
15 Minutes	The average system load within a 15-minute interval

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

More

KNOWLEDGE BASE

Monitoring Linux problem - SNMP port not reachable

- <https://kb.paessler.com/en/topic/5353>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

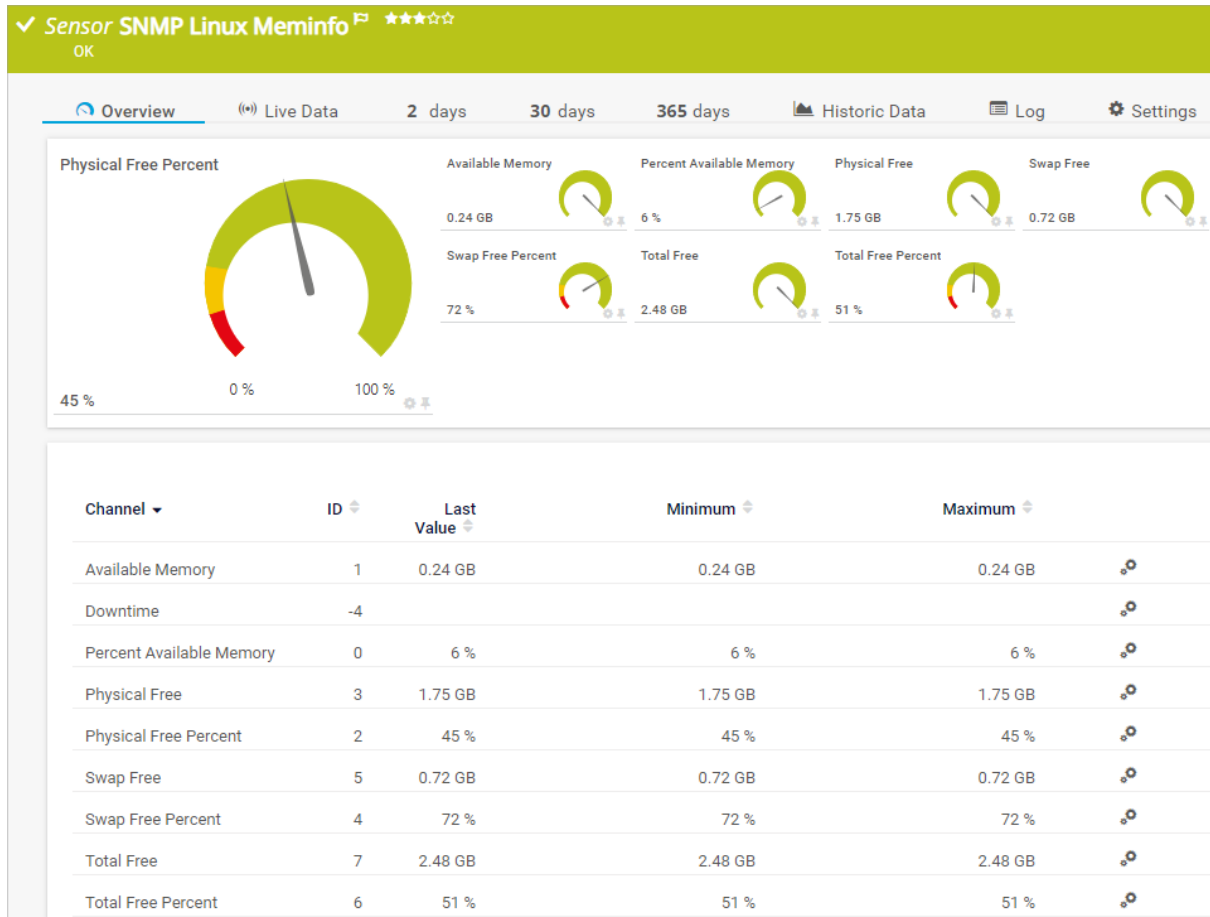
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.185 SNMP Linux Meminfo Sensor

The SNMP Linux Meminfo sensor monitors the memory usage of a Linux/Unix system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Linux Meminfo Sensor

Sensor in Other Languages

- Dutch: SNMP Linux meminfo
- French: Info sur la mémoire SNMP Linux
- German: SNMP Linux Speicherinfo
- Japanese: SNMP Linux メモリ情報
- Portuguese: Linux Meminfo SNMP
- Russian: Linux Meminfo SNMP
- Simplified Chinese: SNMP Linux 内存信息
- Spanish: SNMP información de memoria Linux

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- See the Knowledge Base: [Monitoring Linux problem - SNMP port not reachable](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A list of tags with "exampletag" visible, and buttons for removing (X) and adding (+) tags.
- Priority:** A set of five star icons, all of which are filled, indicating a priority of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p>

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpmeminfosensor ▪ memorysensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display


Sensor Display

Primary Channel **ⓘ** Downtime


Graph Type **ⓘ** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p> <ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic.  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None ▼

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].


Access Rights

inherit from  Root

User Group Access [?]	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management^[153].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#)^[142].

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Available Memory	The available memory in bytes
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
Percent Available Memory	The available memory in percent
Physical Free	The free physical memory in bytes
Physical Free Percent	The free physical memory in percent i This channel is the primary channel by default.
Swap Free	The free swap memory in bytes
Swap Free Percent	The free swap memory in percent
Total Free	The total free memory (physical memory plus swap) in bytes
Total Free Percent	The total free memory (physical memory plus swap) in percent

More

■ KNOWLEDGE BASE

Monitoring Linux problem - SNMP port not reachable

- <https://kb.paessler.com/en/topic/5353>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

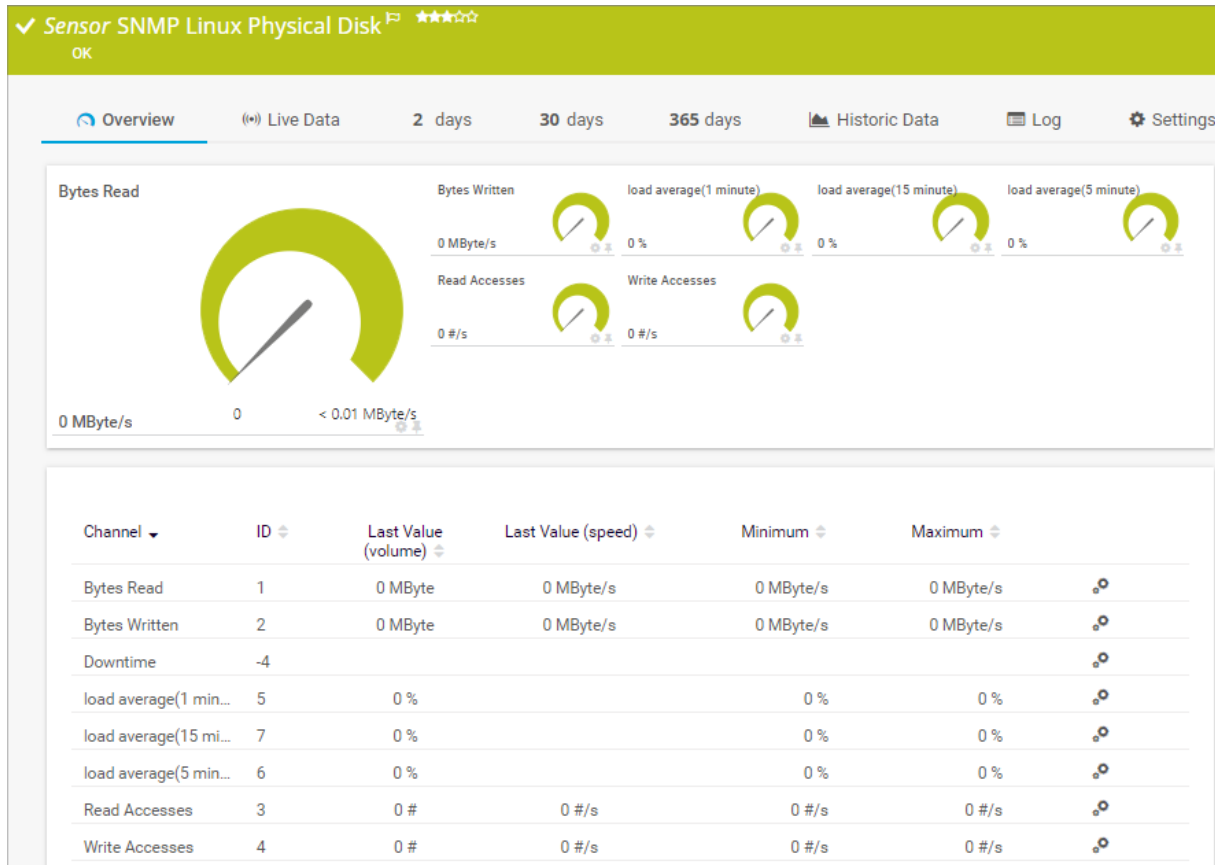
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#) ⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#) ³⁹⁷²
- [Channel Settings](#) ³⁹⁷⁷
- [Notification Triggers Settings](#) ³⁹⁸⁷

7.8.186 SNMP Linux Physical Disk Sensor

The SNMP Linux Physical Disk sensor monitors the input/output (I/O) on disks of a Linux/Unix system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Linux Physical Disk Sensor

Sensor in Other Languages

- Dutch: SNMP Linux Fysieke Schijf
- French: Disque physique Linux SNMP
- German: SNMP Linux Physikalischer Datenträger
- Japanese: SNMP Linux 物理ディスクを監視する
- Portuguese: Disco físico Linux SNMP
- Russian: Linux SNMP
- Simplified Chinese: SNMP Linux 物理磁盘
- Spanish: Disco físico de Linux con SNMP

Remarks

- This sensor supports the IPv6 protocol.

- This sensor has a low performance impact.
- See the Knowledge Base: [Monitoring Linux problem - SNMP port not reachable](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ❶ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Physical Disk Settings

Setting	Description
Disk	<p>Select the physical disks that you want to monitor. PRTG creates one sensor for each physical disk that you select.</p> <p>❶ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list of tags with 'exampletag' selected, accompanied by a close button (X) and an add button (+).
- Priority:** A star rating system showing 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpphysicaldisksensor ▪ physicaldisk
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Physical Disk Settings



Physical Disk Settings

Setting	Description
Disk	Shows the physical disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
BitMask	Shows the bitmask that might be necessary for bug tracking purposes. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Bytes Read	<p>The bytes read per second</p> <p>ⓘ This channel is the primary channel by default.</p>
Bytes Written	The bytes written per second

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Load Average (1 Minute)	The load average (1 minute) in percent
Load Average (5 Minute)	The load average (5 minutes) in percent
Load Average (15 Minute)	The load average (15 minutes) in percent
Read Accesses	The number of read accesses per second
Write Accesses	The number of write accesses per second

More

KNOWLEDGE BASE

Monitoring Linux problem - SNMP port not reachable

- <https://kb.paessler.com/en/topic/5353>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

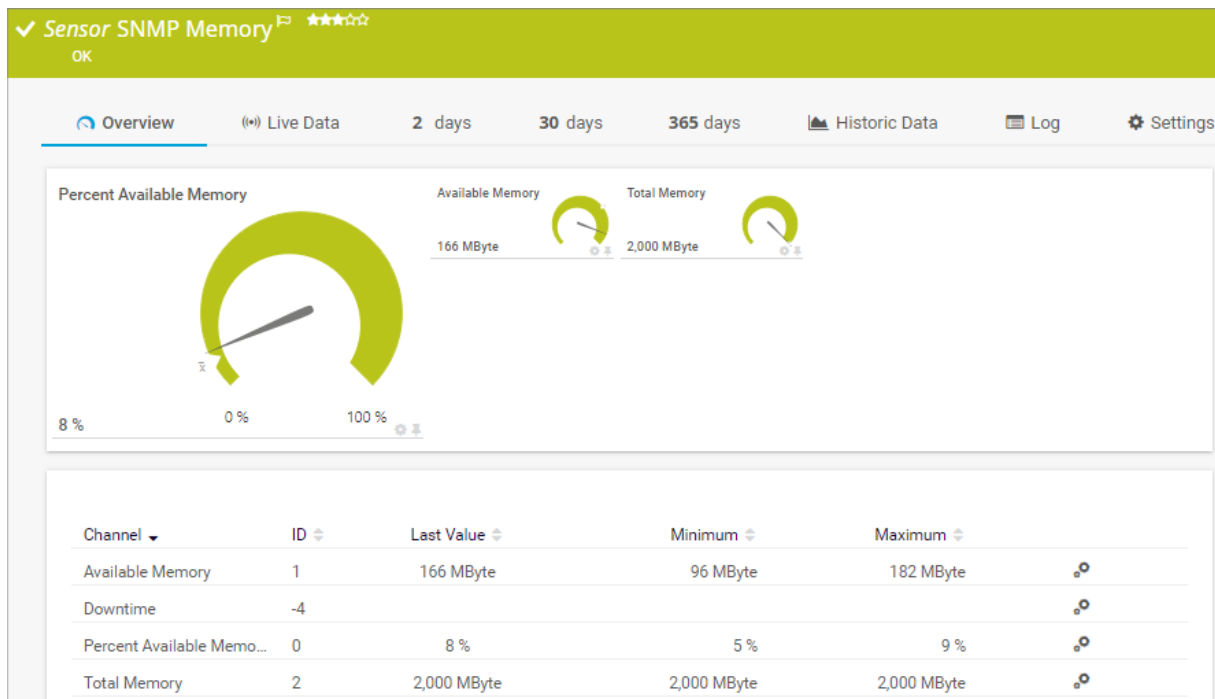
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.187 SNMP Memory Sensor

The SNMP Memory sensor monitors the memory usage of a system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).

This sensor uses more generic object identifier (OID) values in comparison to the [SNMP Linux Meminfo sensor](#).



SNMP Memory Sensor

Sensor in Other Languages

- Dutch: SNMP Geheugen
- French: Mémoire SNMP
- German: SNMP Speicher
- Japanese: SNMP メモリ
- Portuguese: Memória SNMP
- Russian: SNMP
- Simplified Chinese: SNMP 内存
- Spanish: SNMP Memoria

Remarks

- It might not work to query data from a probe device via SNMP (querying localhost, 127.0.0.1, or ::1). [Add this device to PRTG](#) with the IP address that it has in your network and create the SNMP sensor on this device instead.

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Memory Settings

Setting	Description
Memory Type	<p>Select the memory types that you want to monitor. PRTG creates one sensor for each memory type that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a blue 'x' to remove it and a '+' to add more.
- Priority:** A section with five stars, where the first three are filled, indicating a priority of 3.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpmemoriesensor ▪ memory ▪ memoriesensor ▪ snmp
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Memory Settings

Memory Settings
Memory Type **i**
Virtual Memory

Memory Settings

Setting	Description
Memory Type	Shows the type of memory that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.


Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.


For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
<input type="radio"/> inherit from  Root	Scanning Interval ⓘ 60 seconds
	If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None


Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays


Setting	Description
	<ul style="list-style-type: none"> ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency.


Setting	Description
	<ul style="list-style-type: none"> Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies [4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector [251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups¹⁴² that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#)¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Available Memory	The available memory in bytes
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Percent Available Memory	<p>The available memory in percent</p> <p>i This channel is the primary channel by default.</p>
Total Memory	The total memory in bytes

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

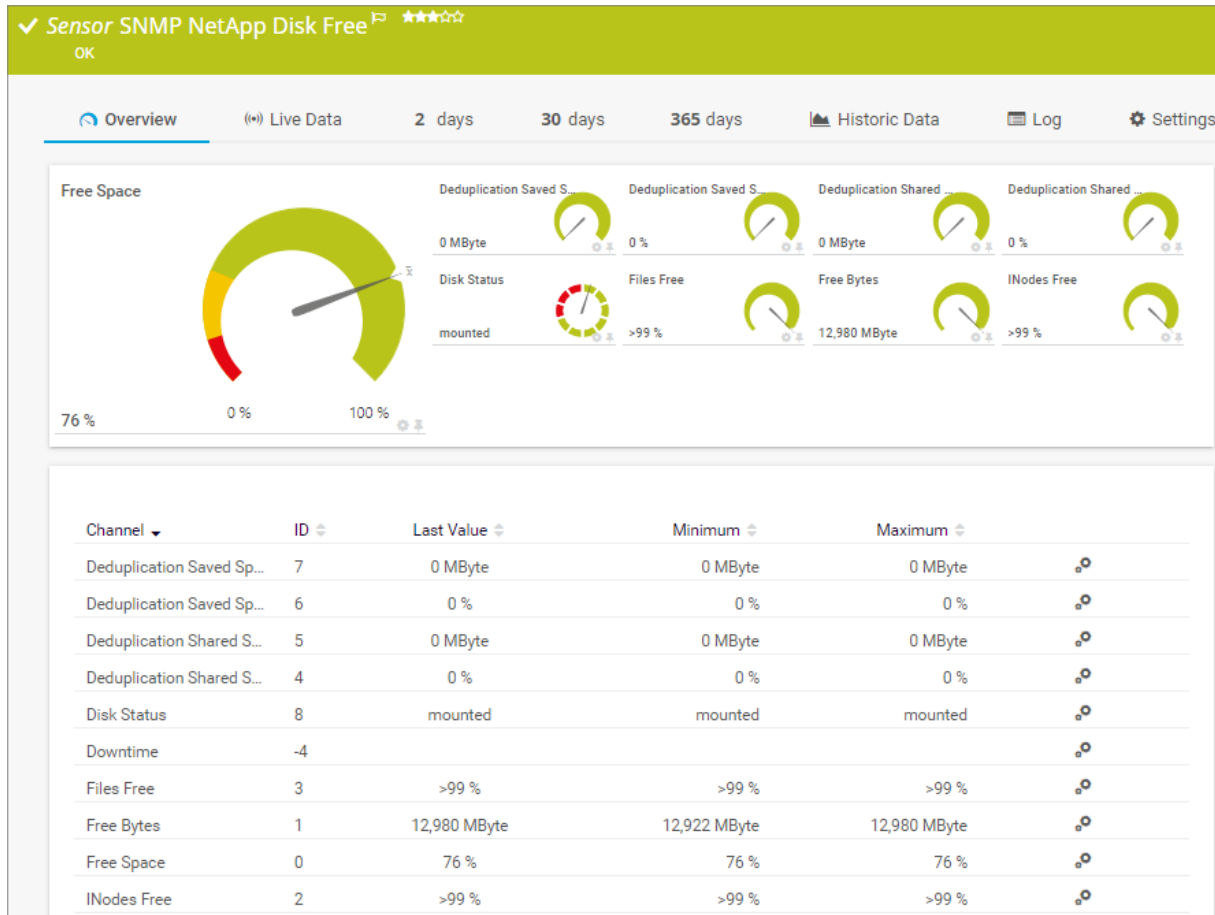
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.188 SNMP NetApp Disk Free Sensor

The SNMP NetApp Disk Free sensor monitors the free space on disks of a NetApp storage system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP NetApp Disk Free Sensor

Sensor in Other Languages

- Dutch: SNMP NetApp Schijf Vrije Ruimte
- French: Espace disque libre NetApp SNMP
- German: SNMP NetApp-Datenträgerspeicher
- Japanese: SNMP NetApp 空きディスク
- Portuguese: Disco livre SNMP NetApp
- Russian: NetApp SNMP
- Simplified Chinese: SNMP NetApp 磁盘可用空间
- Spanish: SNMP Disco libre NetApp

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).
- See the Knowledge Base: [How can I monitor capacity and used disk space on a NetApp?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

NetApp Disk Free Settings

Setting	Description
File System	<p>Select the disks that you want to monitor. PRTG creates one sensor for each disk that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ X +

Priority ⓘ ★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpdiskfreesensor ▪ snmpnetappdiskfreesensor ▪ snmpnetapp ▪ netapp
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

NetApp Disk Free Settings

NetApp Disk Free Settings

File System ⓘ
AGGR_01_SAS

Virtual Disk ⓘ

NetApp Disk Free Settings

Setting	Description
File System	Shows the name of the disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Virtual Disk	Shows the name of the virtual disk that this sensor monitors (if applicable). ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display


Primary Channel ⓘ
Downtime

Graph Type ⓘ


Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules </p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Deduplication Saved Space	The deduplication saved space in bytes
Deduplication Saved Space %	The deduplication saved space in percent

Channel	Description
Deduplication Shared Space	The deduplication shared space in bytes
Deduplication Shared Space %	The deduplication shared space in percent
Disk Status	<p>The disk status</p> <ul style="list-style-type: none"> Up status¹⁹⁷: Creating, Mounted, Mounting, Nofsinfo, Replayed, Replaying, Unmounting Down status: Destroying, Frozen, Unmounted
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Files Free	The free files in percent
Free Bytes	The free space in bytes
Free Space	<p>The free space in percent</p> <p> This channel is the primary channel by default.</p>
INodes Free	The free index nodes in percent

More

■ KNOWLEDGE BASE

How can I monitor capacity and used disk space on a NetApp?

- <https://kb.paessler.com/en/topic/61231>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

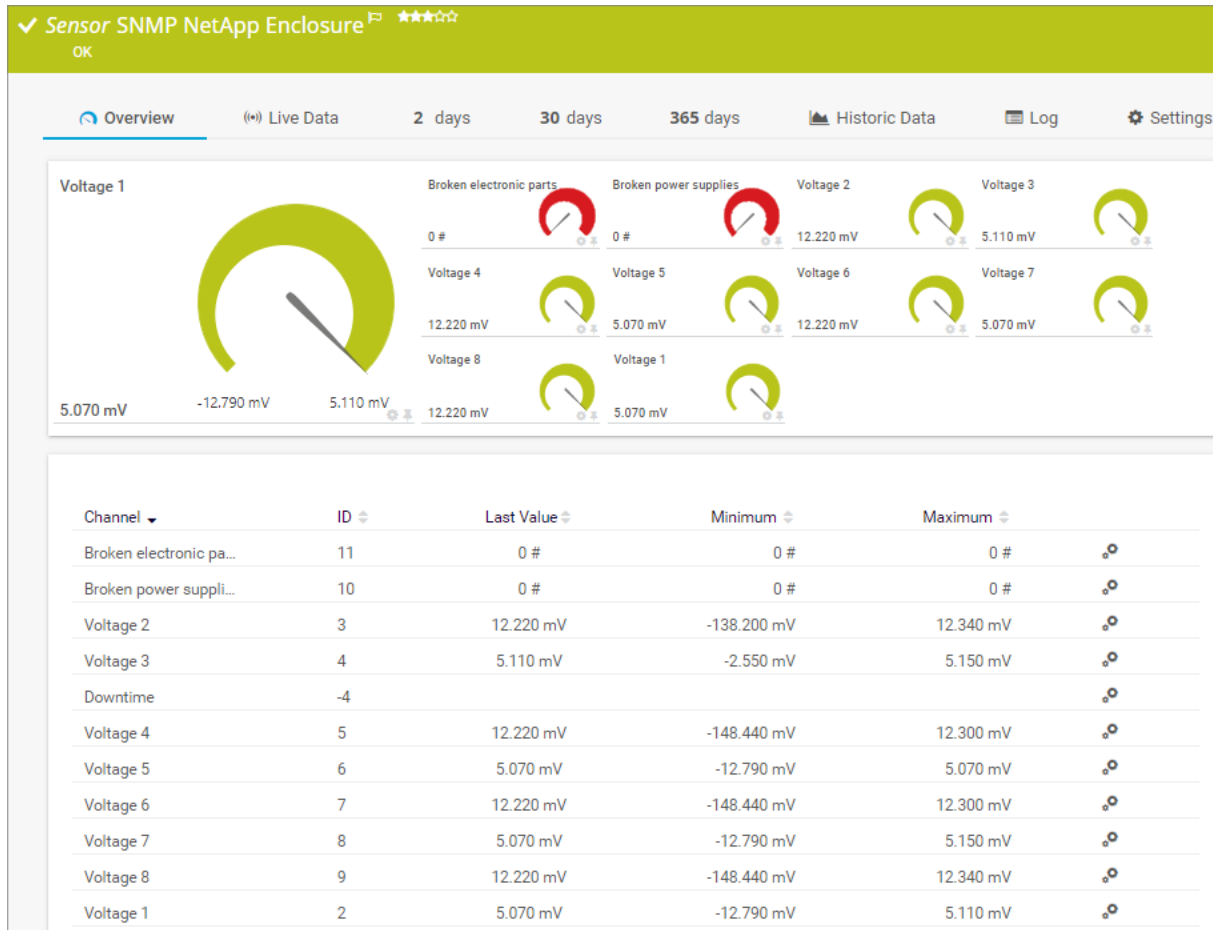
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.189 SNMP NetApp Enclosure Sensor

The SNMP NetApp Enclosure sensor monitors the power supply and cooling of an enclosure that is part of a NetApp storage system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP NetApp Enclosure Sensor

Sensor in Other Languages

- Dutch: SNMP NetApp Behuizing
- French: Boîtier NetApp SNMP
- German: SNMP NetApp Enclosure
- Japanese: SNMP NetApp エンクロージャ
- Portuguese: Gabinete NetApp via SNMP
- Russian: NetApp SNMP
- Simplified Chinese: SNMP NetApp 机箱
- Spanish: SNMP NetApp Enclosure

Remarks

- This sensor only supports NetApp versions up to 8.2.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor has predefined limits for several metrics. You can individually change these limits in the channel settings. For detailed information about channel limits, see section [Channel Settings](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

NetApp Enclosure Settings

Setting	Description
Enclosures	<p>Select the power supply and cooling measurements of the enclosures that you want to monitor. PRTG creates one sensor for each enclosure/measurement combination that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ X +

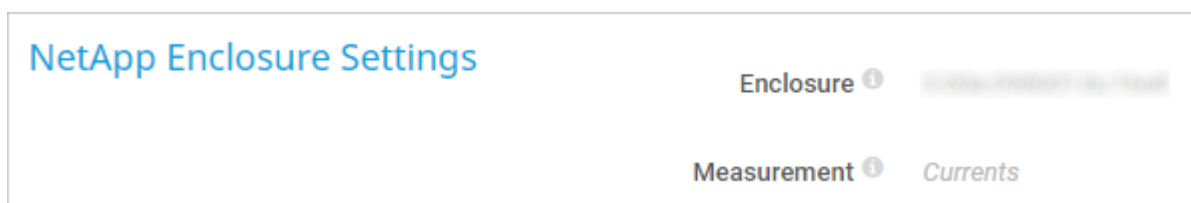
Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpnetappenclosuresensor ▪ snmpnetapp ▪ netapp
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

NetApp Enclosure Settings



NetApp Enclosure Settings

Setting	Description
Enclosure	Shows the identifier of the enclosure that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Measurement	Shows the type of measurement that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

NetApp Specific

NetApp Specific

N/A Measurement Handling ⓘ Set sensor to down status (default)
 Interpret as valid

NetApp Specific

Setting	Description
N/A Measurement Handling	Define the sensor behavior if the requested NetApp value is not available (N/A values): <ul style="list-style-type: none"> ▪ Set sensor to down status (default): Set the sensor to the Down status¹⁹⁷ if a measurement is not available. <ul style="list-style-type: none"> ⓘ We recommend that you use this setting to not miss any hardware errors. ▪ Interpret as valid: Handle unavailable measurements as valid sensor results to keep the sensor in the Up status. <ul style="list-style-type: none"> ⓘ This might be useful, for example, if a hardware sensor on the NetApp is disabled for some reason but actually there is no hardware error. If the NetApp returns an N/A measurement, the sensor interprets this as 0. ⓘ We recommend that you use the lookup file <code>prtg.standardlookups.netapp.notavailable.ovl</code> for channels with unavailable measurements if you select this option. This replaces 0 with the message Not Available. Open the settings³⁹⁷⁷ of the affected channels and select this file in section Lookup. For details, see section Define Lookups⁴⁴⁸⁵.

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Broken Electronic Parts	The number of broken electronic parts
Broken Power Supplies	The number of broken power supplies
Current [#]	The current in milliampere (mA)
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Fan [#]	The fan revolutions per minute (RPM)
Fans Failed	The number of failed fans
Voltage [#]	The voltage in millivolts (mV)

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

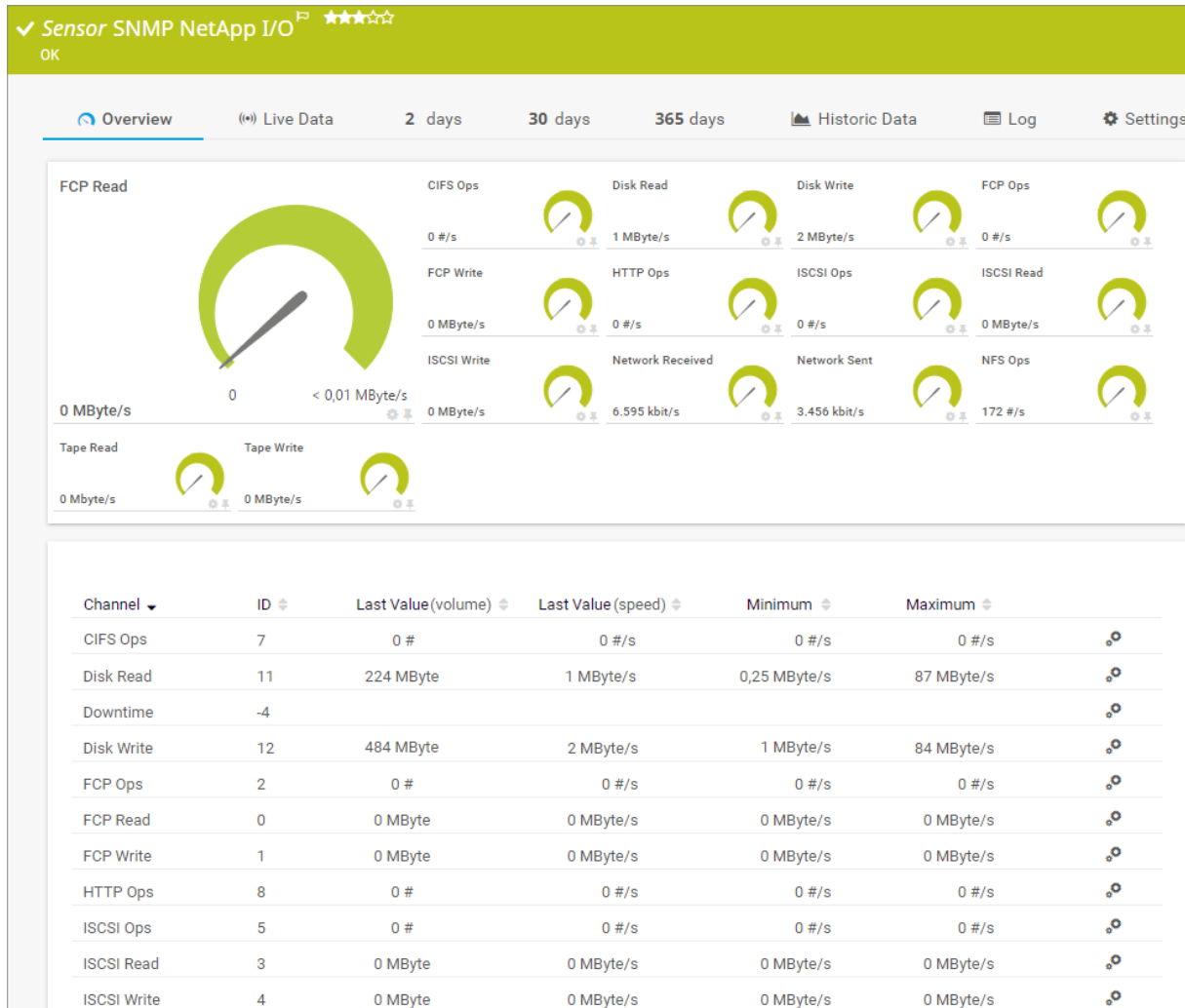
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.190 SNMP NetApp I/O Sensor

The SNMP NetApp I/O sensor monitors the input/output operations per second (IOPS) on a NetApp storage system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP NetApp I/O Sensor

Sensor in Other Languages

- Dutch: SNMP NetApp I/O
- French: NetApp SNMP E/S
- German: SNMP NetApp E/A
- Japanese: SNMP NetApp I/O
- Portuguese: E/S SNMP NetApp
- Russian: - NetApp SNMP
- Simplified Chinese: SNMP NetApp I/O

- Spanish: SNMP NetApp I/O

Remarks

- This sensor only supports NetApp versions up to 8.2.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- If you use NetApp cDOT 8.3 or NetApp ONTAP 9.0 or later, we recommend that you use the [NetApp I/O sensor](#) instead.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field with the placeholder "Example Name".
- Tags:** A list of tags with "exampletag" currently selected. There are "X" and "+" icons for removing and adding tags.
- Priority:** A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpnetappiosensor ▪ snmpnetapp ▪ netapp
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display


Sensor Display

Primary Channel **i** Downtime


Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>

Setting	Description
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> i You can change the available intervals in the system administration on PRTG on premises installations. </p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p> i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply. </p> <p> i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply. </p> <p> i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply. </p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None ▼

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CIFS Ops	The number of Common Internet File System (CIFS) operations per second
Disk Read	The disk read speed in bytes per second

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Disk Write	The disk write speed in bytes per second
FCP Ops	The number of Fibre Channel Protocol (FCP) operations per second
FCP Read	The FCP read speed in bytes per second  This channel is the primary channel by default.
FCP Write	The FCP write speed in bytes per second
HTTP Ops	The number of HTTP operations per second
ISCSI Ops	The number of Internet Small Computer System Interface (iSCSI) operations per second
ISCSI Read	The iSCSI read speed in bytes per second
ISCSI Write	The iSCSI write speed in bytes per second
Network Received	The number of bytes received per second
Network Sent	The number of bytes sent per second
NFS Ops	The network file system (NFS) operations per second
Tape Read	The tape read speed in bytes per second
Tape Write	The tape write speed in bytes per second

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

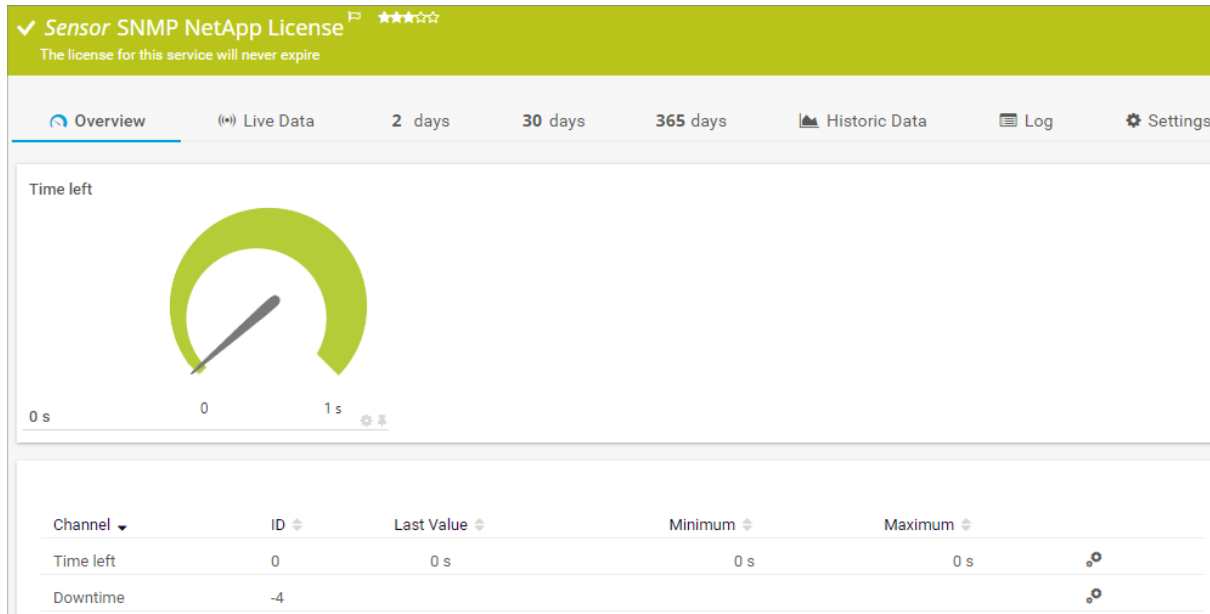
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.191 SNMP NetApp License Sensor

The SNMP NetApp License sensor monitors the licenses for the services of a NetApp storage system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP NetApp License Sensor

Sensor in Other Languages

- Dutch: SNMP NetApp licentie
- French: Licence NetApp SNMP
- German: SNMP NetApp Lizenz
- Japanese: SNMP NetApp ライセンス
- Portuguese: Licença SNMP NetApp
- Russian: NetApp SNMP
- Simplified Chinese: SNMP NetApp 许可证
- Spanish: SNMP Licencia NetApp

Remarks

- This sensor only supports NetApp versions up to 8.2.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

NetApp License Settings

Setting	Description
Licenses for Services	<p>Select the licenses for the services that you want to monitor. PRTG creates one sensor for each license that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A text input field containing 'exampletag' with a blue 'x' to remove it and a '+' to add more.
- Priority**: A selection of three stars out of five.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags [145] that the sensor inherits [145] from its parent device [140], parent group [139], and parent probe [139]. <p>i This setting is for your information only. You cannot change it.</p>
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited [145]. <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpnetapplicensesensor ▪ snmpnetapp ▪ netapp
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

NetApp License Settings

NetApp License Settings

License for Service **i** *SnapMirror License*

NetApp License Settings

Setting	Description
License for Service	Shows the name of the license whose service this sensor monitors. <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 


Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Time Left	<p>The time until the license for a service expires</p> <p> This channel is the primary channel by default.</p>

More

KNOWLEDGE BASE

What security features does PRTG include?

▪ <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





▪ <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

▪ <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.192 SNMP NetApp Logical Unit Sensor

The SNMP NetApp Logical Unit sensor monitors the input/output operations per second (IOPS) on a logical unit of a NetApp storage system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP NetApp Logical Unit Sensor

Sensor in Other Languages

- Dutch: SNMP NetApp Logical Unit
- French: Unité logique NetApp SNMP
- German: SNMP NetApp Logische Einheit
- Japanese: SNMP NetApp 論理ユニット
- Portuguese: Unidade lógica SNMP NetApp
- Russian: NetApp SNMP
- Simplified Chinese: SNMP NetApp 逻辑单元
- Spanish: Unidad lógica NetApp por SNMP

Remarks

- This sensor only supports NetApp versions up to 8.2.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- If you use NetApp cDOT 8.3 or NetApp ONTAP 9.0 or later, we recommend that you use the [NetApp LUN sensor](#) instead.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

NetApp Logical Unit Settings

Setting	Description
Logical Unit	<p>Select the logical units that you want to monitor. PRTG creates one sensor for each logical unit that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>
Alignment Monitoring	<p>Select if the sensor checks the alignment of the logical unit:</p> <ul style="list-style-type: none"> ▪ Do not check alignment ▪ Check alignment (if available)

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag X +

Priority ⓘ ★ ★ ★ ☆ ☆

Example Name

exampletag X +

★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpdiskfreesensor ▪ snmpnetappdiskfreesensor ▪ snmpnetapp ▪ netapp
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

NetApp Logical Unit Settings

NetApp Logical Unit Settings

Logical Unit ⓘ */vol/vol_mysql_I0/mysql_I0/mysql_I0.lun*

Alignment Monitoring ⓘ *Do not check alignment*

Volume ⓘ *mysql_I0*

Comment ⓘ

NetApp Logical Unit Settings

Setting	Description
Logical Unit	Shows the name of the logical unit that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Alignment Monitoring	Shows if the sensor checks the alignment of the logical unit. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Volume	Shows the volume that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Comment	Shows comments for the logical unit that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display




Primary Channel ⓘ *Downtime*

Graph Type ⓘ


Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule **None**

Maintenance Window **Do not set up a one-time maintenance window**
 Set up a one-time maintenance window

Dependency Type **Use parent**
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

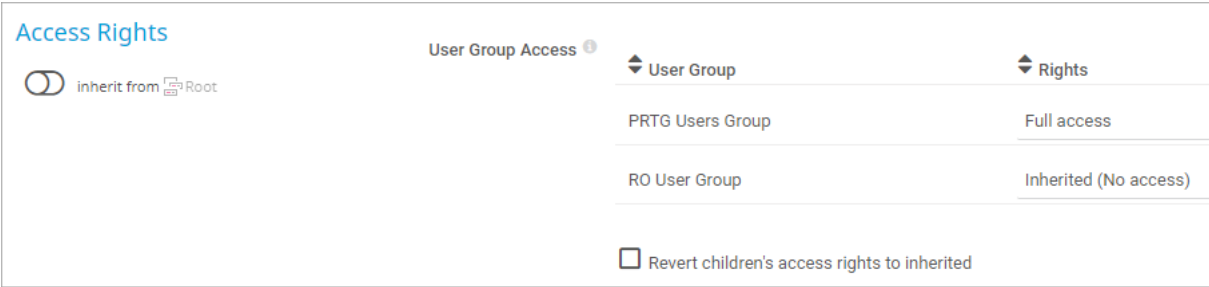
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



User Group Access	User Group	Rights
<input checked="" type="checkbox"/> inherit from  Root	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Data Read	The data read speed in bytes per second
Data Written	The data write speed in bytes per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Errors	The number of errors per second
Ops	The total number of operations per second i This channel is the primary channel by default.
Other Ops	The number of other operations per second
Read Ops	The number of disk read operations per second
Status	The status of the logical unit <ul style="list-style-type: none"> Up status¹⁹⁷: Online Down status: Offline
Write Ops	The number of disk write operations per second

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

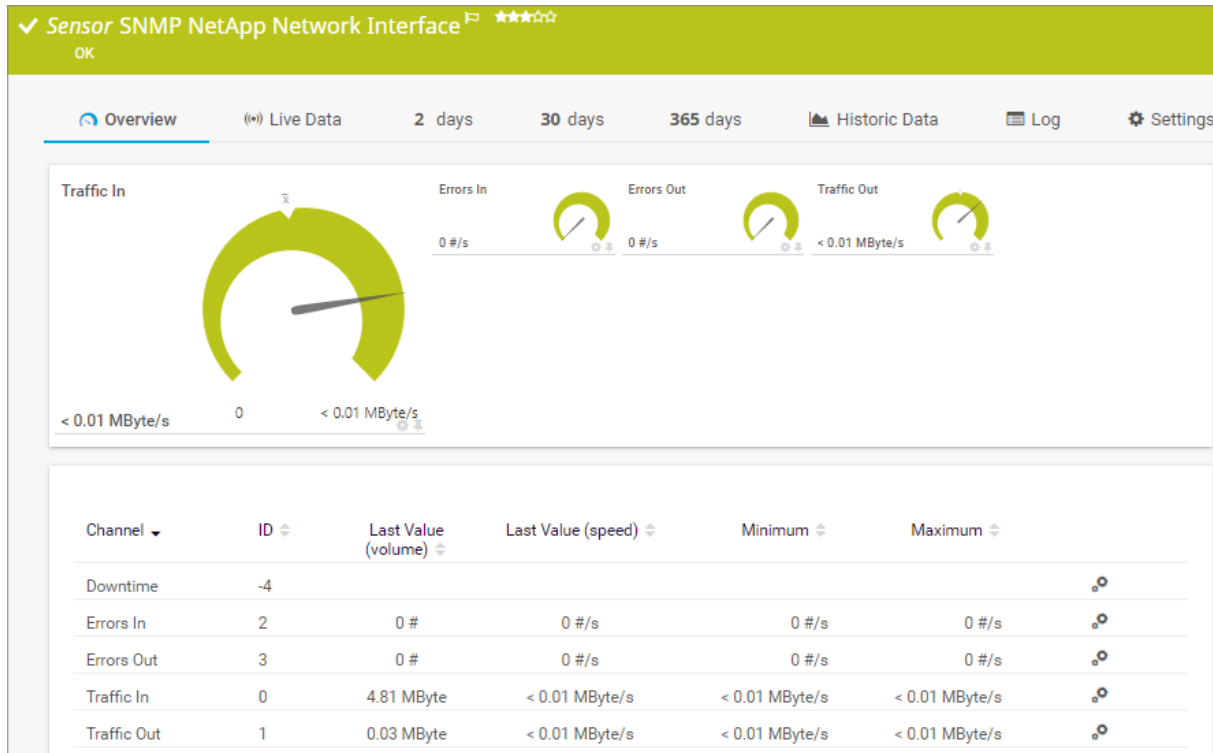
- [List of Available Sensor Types](#)⁴⁵⁹¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷

- [Notification Triggers Settings](#) 

7.8.193 SNMP NetApp Network Interface Sensor

The SNMP NetApp Network Interface sensor monitors a network card of a NetApp storage system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP NetApp Network Interface Sensor

Sensor in Other Languages

- Dutch: SNMP NetApp Network Interface
- French: Interface réseau NetApp SNMP
- German: SNMP NetApp Netzwerkschnittstelle
- Japanese: SNMP NetApp ネットワークインターフェース
- Portuguese: Interface de rede SNMP NetApp
- Russian: NetApp SNMP
- Simplified Chinese: SNMP NetApp 网络接口
- Spanish: SNMP Interface de red NetApp

Remarks

- This sensor only supports NetApp versions up to 8.2.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

- If you use NetApp cDOT 8.3 or NetApp ONTAP 9.0 or later, we recommend that you use the [NetApp NIC sensor](#) instead.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

NetApp Network Interface Settings

Setting	Description
Network Interface	<p>Select the network interfaces that you want to monitor. PRTG creates one sensor for each interface that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has a title bar 'Basic Sensor Settings'. Below the title bar, there are three main sections:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A text input field containing 'exampletag' with a blue 'x' to remove it and a '+' to add more.
- Priority**: A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . ⓘ This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited . ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ snmpnetappnetworkinterfacesensor ▪ snmpnetapp ▪ netapp
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

NetApp Network Interface Settings

NetApp Network Interface Settings

Network Interface ⓘ netapp01

NetApp Network Interface Settings

Setting	Description
Network Interface	Shows the name of the interface that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click ⓘ to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management^[155].</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#)^[142].

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Errors In	The number of incoming errors per second
Errors Out	The number of outgoing errors per second
Traffic In	<p>The incoming traffic in bytes per second</p> <p>i This channel is the primary channel by default.</p>
Traffic Out	The outgoing traffic in bytes per second

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>





Part 7: Device and Sensor Setup | 8 Sensor Settings
193 SNMP NetApp Network Interface Sensor

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

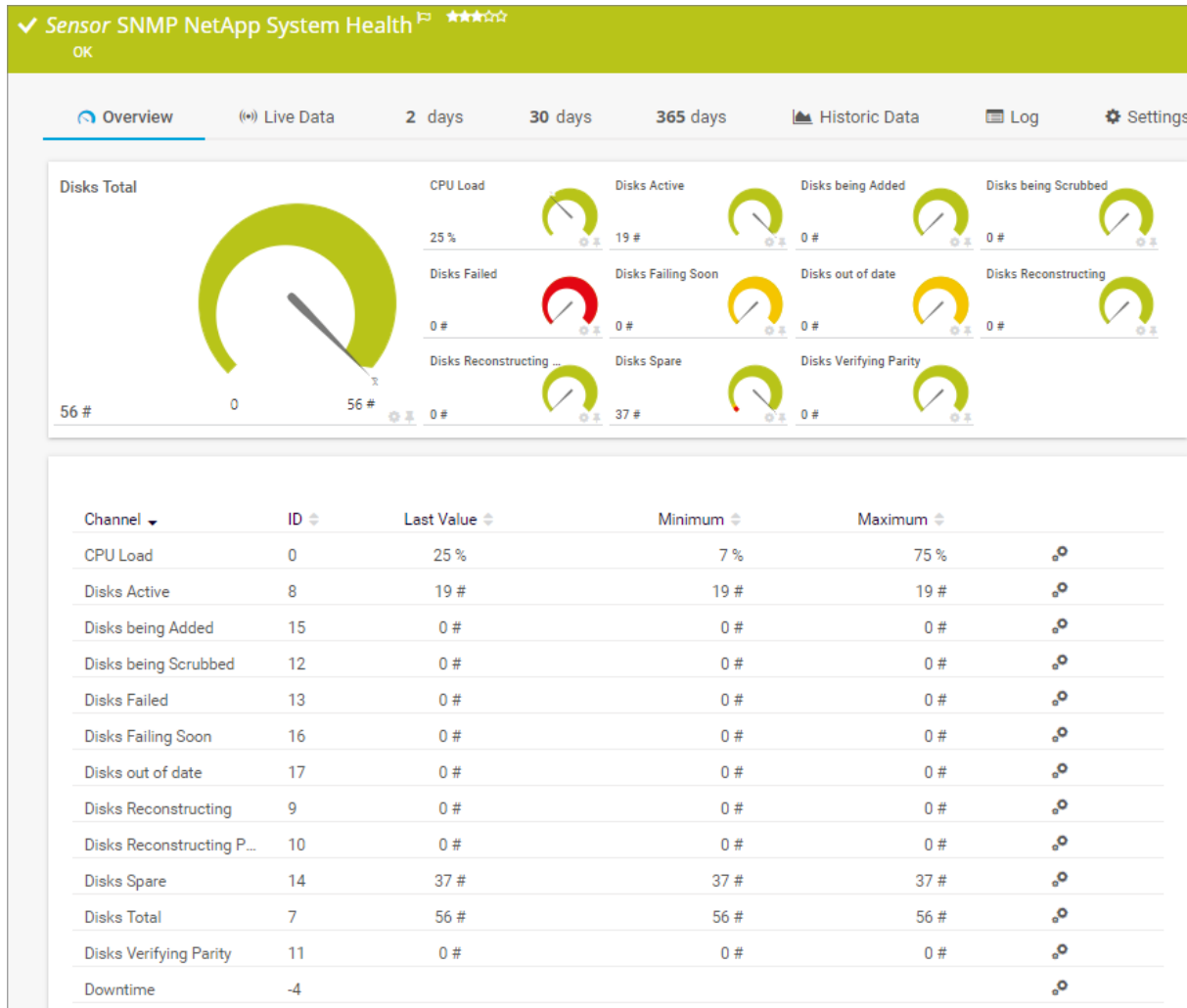
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.194 SNMP NetApp System Health Sensor

The SNMP NetApp System Health sensor monitors the status of a NetApp storage system via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP NetApp System Health Sensor

Sensor in Other Languages

- Dutch: SNMP NetApp Systemstatus
- French: Intégrité du système NetApp SNMP
- German: SNMP NetApp Systemzustand
- Japanese: SNMP NetApp システム正 常 性
- Portuguese: Funcionamento do sistema SNMP NetApp
- Russian: NetApp SNMP
- Simplified Chinese: SNMP NetApp 系统 健康 状况

- Spanish: SNMP Salud de sistema NetApp

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- If you use NetApp cDOT 8.3 or NetApp ONTAP 9.0 or later, we recommend that you use the [NetApp System Health sensor](#) instead.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A list of tags with "exampletag" selected. There are "X" and "+" icons for removing and adding tags.
- Priority:** A star rating system showing 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p>

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> snmpnetappsystemhealthsensor snmpnetapp netapp
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display


Sensor Display

Primary Channel **i** Downtime


Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None ▼

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU Load	The CPU load in percent
Disks Active	The number of active disks
Disks Being Added	The number of disks being added

Channel	Description
Disks Being Scrubbed	The number of disks being scrubbed
Disks Failed	The number of failed disks
Disks Failing Soon	The number of disks that will fail soon
Disks Out Of Date	The number of disks that are out of date
Disks Reconstructing	The number of disks that are reconstructing
Disks Reconstructing Parity	The number of disks that are reconstructing parity
Disks Spare	The number of spare disks
Disks Total	The number of disks in total  This channel is the primary channel by default.
Disks Verifying Parity	The number of disks that are verifying parity
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?



- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

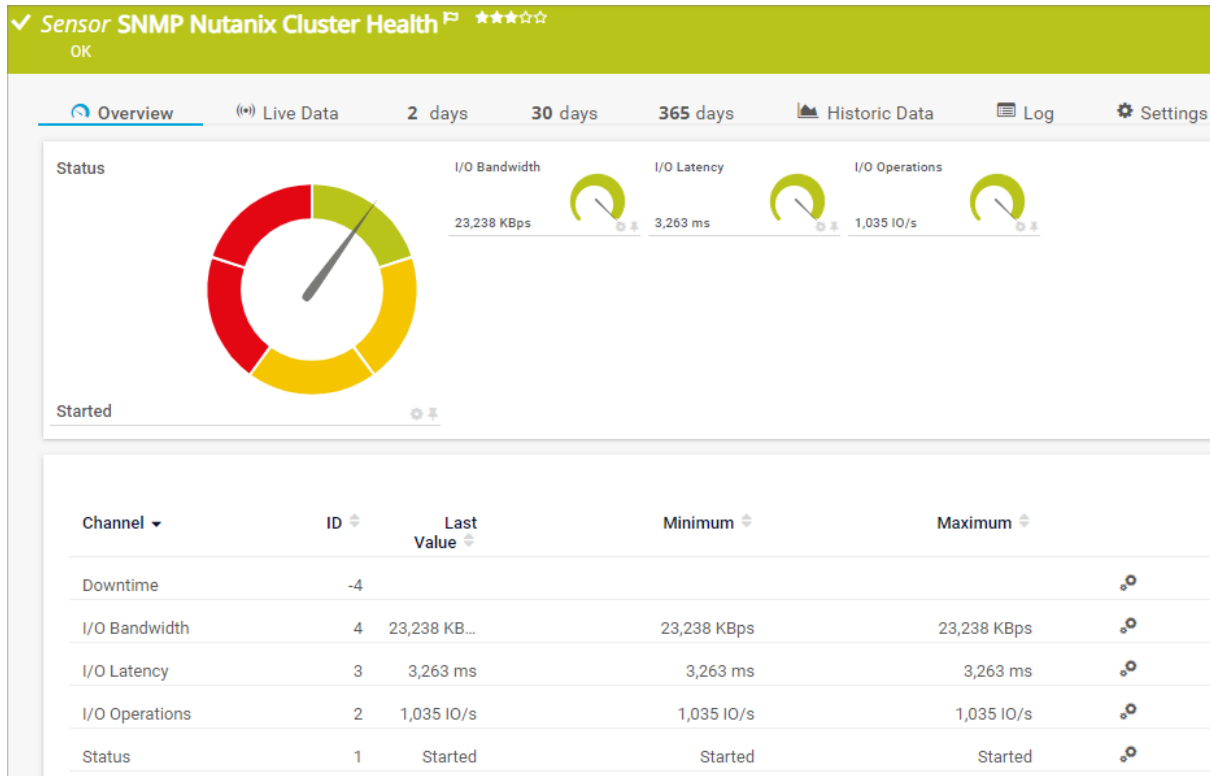
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972

- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.195 SNMP Nutanix Cluster Health Sensor

The SNMP Nutanix Cluster Health sensor monitors the status and the performance of a Nutanix cluster via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Nutanix Cluster Health Sensor

Sensor in Other Languages

- Dutch: SNMP Nutanix Cluster Health
- French: État de cluster SNMP Nutanix
- German: SNMP Nutanix Clusterzustand
- Japanese: SNMP Nutanix クラスターの正常性
- Portuguese: Funcionamento do cluster Nutanix SNMP
- Russian: SNMP Nutanix
- Simplified Chinese: SNMP Nutanix 群集运行状况
- Spanish: Estado de clúster Nutanix con SNMP

Remarks

- Nutanix devices only support [SNMP v3](#). Make sure that you select SNMP v3 in the [credentials for SNMP devices](#) settings of the parent device.
- This sensor supports the IPv6 protocol.

- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

System Specific

Setting	Description
Measurement	<p>Select the measurements that you want to monitor. PRTG creates one sensor for each measurement that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a blue 'x' to remove it and a plus sign to add more.
- Priority:** A section with five stars, where the first three are filled, indicating a priority of 3.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpnutanixclusterhealthsensor ▪ snmp ▪ nutanix
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

System Specific

System Specific

Measurement ⓘ *ntxCluster*

Sensor Version ⓘ 2

Identifier ⓘ

OID Index ⓘ

System Specific

Setting	Description
Measurement	Shows the type of measurement that this sensor monitors.
Sensor Version	Shows the version of the sensor definition that was used to create this sensor.
Identifier	Shows the value that the sensor uses to find the component in the OID table.
OID Index	Shows the OID table index that this sensor uses.

Debug Options

Debug Options

Result Handling ⓘ Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory [4526] on the probe system. The file names are Result of Sensor [ID].Data.txt and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval.

Setting	Description
	<p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
I/O Bandwidth	The bandwidth of input/output (I/O) operations in bytes per second

Channel	Description
I/O Latency	The latency of I/O operations in milliseconds (ms)
I/O Operations	The number of I/O operations per second
Status	<p>The status of the Nutanix cluster</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Started ▪ Warning status: Starting, Stopping ▪ Down status: Stopped, Unknown <p> This channel is the primary channel by default.</p>

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

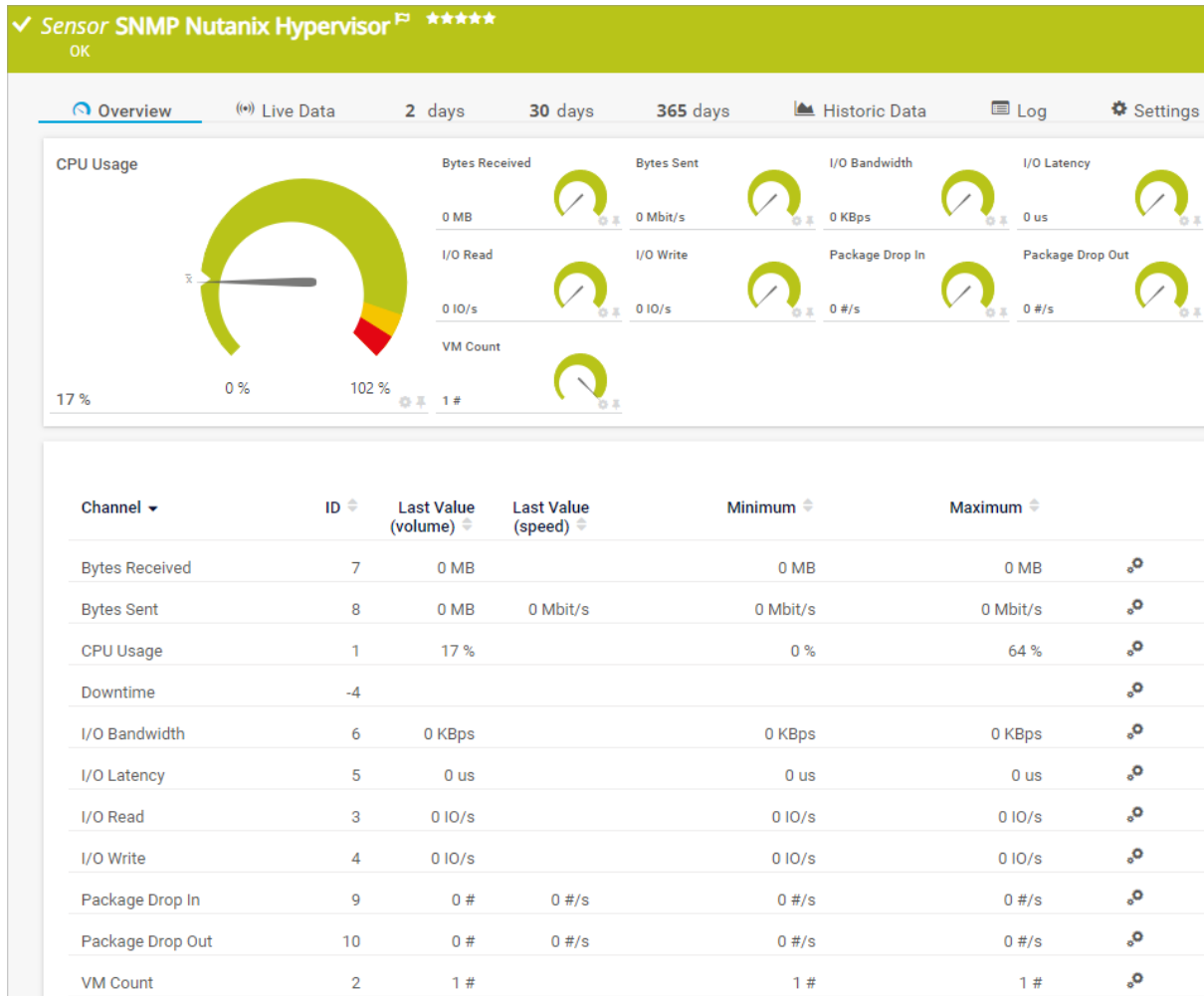
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.8.196 SNMP Nutanix Hypervisor Sensor

The SNMP Nutanix Hypervisor sensor monitors a Nutanix hypervisor via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Nutanix Hypervisor Sensor

Sensor in Other Languages

- Dutch: SNMP Nutanix Hypervisor
- French: Hyperviseur SNMP Nutanix
- German: SNMP Nutanix Hypervisor
- Japanese: SNMP Nutanix ハイパーバイザー
- Portuguese: Hipervisor Nutanix SNMP
- Russian: SNMP Nutanix
- Simplified Chinese: SNMP Nutanix 虚拟机监控程序
- Spanish: Hipervisor Nutanix con SNMP

Remarks

- Nutanix devices only support **SNMP v3**. Make sure that you select SNMP v3 in the [credentials for SNMP devices](#) settings of the parent device.
- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

System Specific

Setting	Description
Measurements	<p>Select the measurements that you want to monitor. PRTG creates one sensor for each measurement that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ ✕ +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpnutanixhypervisorsensor ▪ snmp ▪ nutanix
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

System Specific

System Specific

Measurement ⓘ *ntxHypervisor*

Sensor Version ⓘ 2

Identifier ⓘ *[blurred]*

OID Index ⓘ 1

System Specific

Setting	Description
Measurement	Shows the type of measurement that this sensor monitors.
Sensor Version	Shows the version of the sensor definition that was used to create this sensor.
Identifier	Shows the value that the sensor uses to find the component in the OID table.
OID Index	Shows the OID table index that this sensor uses.

Debug Options

Debug Options

Result Handling ⓘ Discard result
 Store result

Debug Options

Setting	Description
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none">Discard result: Do not store the sensor result.Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].Data.txt and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval.

Setting	Description
	<p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration^[4187] on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>



Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

Channel Unit Types ⓘ


 inherit from  Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Bytes Received	The number of bytes received per second
Bytes Sent	The number of bytes sent per second
CPU Usage	The CPU usage in percent

Channel	Description
	 This channel is the primary channel by default.
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
I/O Bandwidth	The bandwidth of input/output (I/O) operations in bytes per second
I/O Latency	The latency of I/O operations in microseconds (µs)
I/O Read	The read speed of I/O operations per second
I/O Write	The write speed of I/O operations per second
Package Drop In	The number of dropped incoming packages per second
Package Drop Out	The number of dropped outgoing packages per second
VM Count	The number of virtual machines (VM)

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

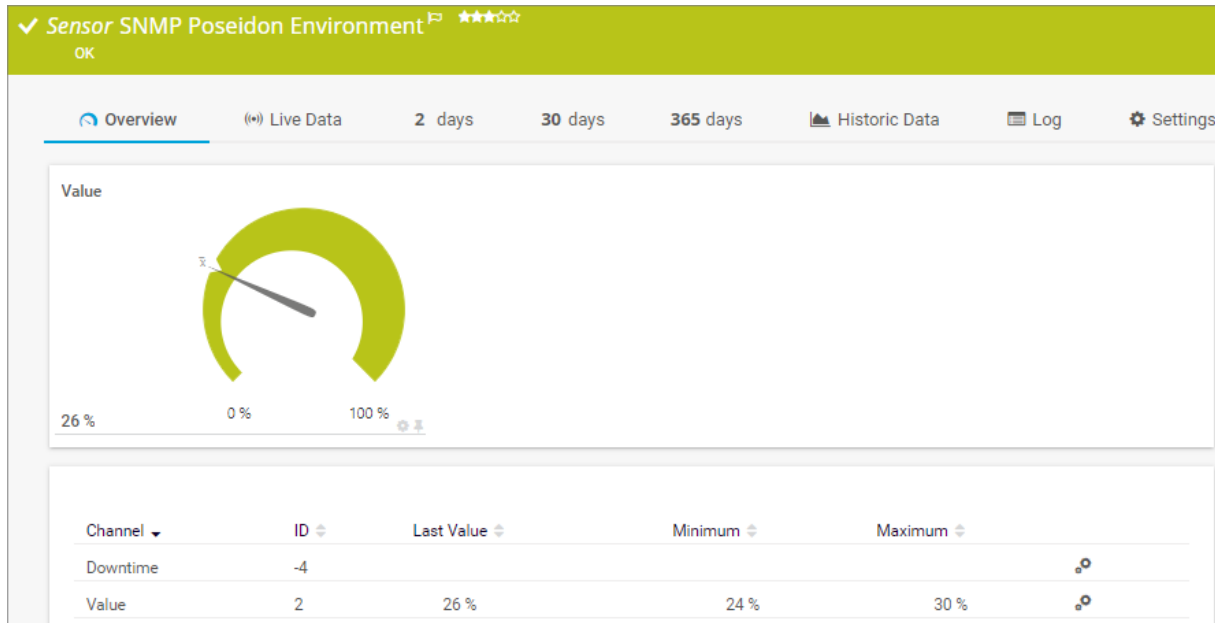
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3997

7.8.197 SNMP Poseidon Environment Sensor

The SNMP Poseidon Environment sensor monitors performance counters for environmental measurements on Poseidon hardware via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Poseidon Environment Sensor

Sensor in Other Languages

- Dutch: SNMP Poseidon Omgeving
- French: Environnement Poseidon SNMP
- German: SNMP Poseidon-Umgebung
- Japanese: SNMP Poseidon 環境
- Portuguese: Ambiente Poseidon SNMP
- Russian: Poseidon SNMP
- Simplified Chinese: SNMP Poseidon 环境
- Spanish: Entorno Poseidon con SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- For a general introduction to the technology behind SNMP, see section [Monitoring via SNMP](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Poseidon Environment Specific

Setting	Description
Measuring Point	<p>Select the measuring points that you want to monitor. PRTG creates one sensor for each measuring point that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags ^[145] that the sensor inherits ^[145] from its parent device ^[140] , parent group ^[139] , and parent probe ^[139] . <i>i</i> This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145] . <i>i</i> It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). <i>i</i> For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ apcups
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Poseidon Environment Specific

Poseidon Environment Specific

	Name <i>i</i>	<i>Humidity</i>
	Unit <i>i</i>	<i>Percent</i>
	Measuring Point <i>i</i>	<i>14963</i>

Poseidon Environment Specific

Setting	Description
Name	Shows the name of the measurement that this sensor monitors.

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Unit	<p>Shows the unit of the value measurement that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Measuring Point	<p>Shows the measuring points that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display


Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	The humidity in percent or the temperature

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

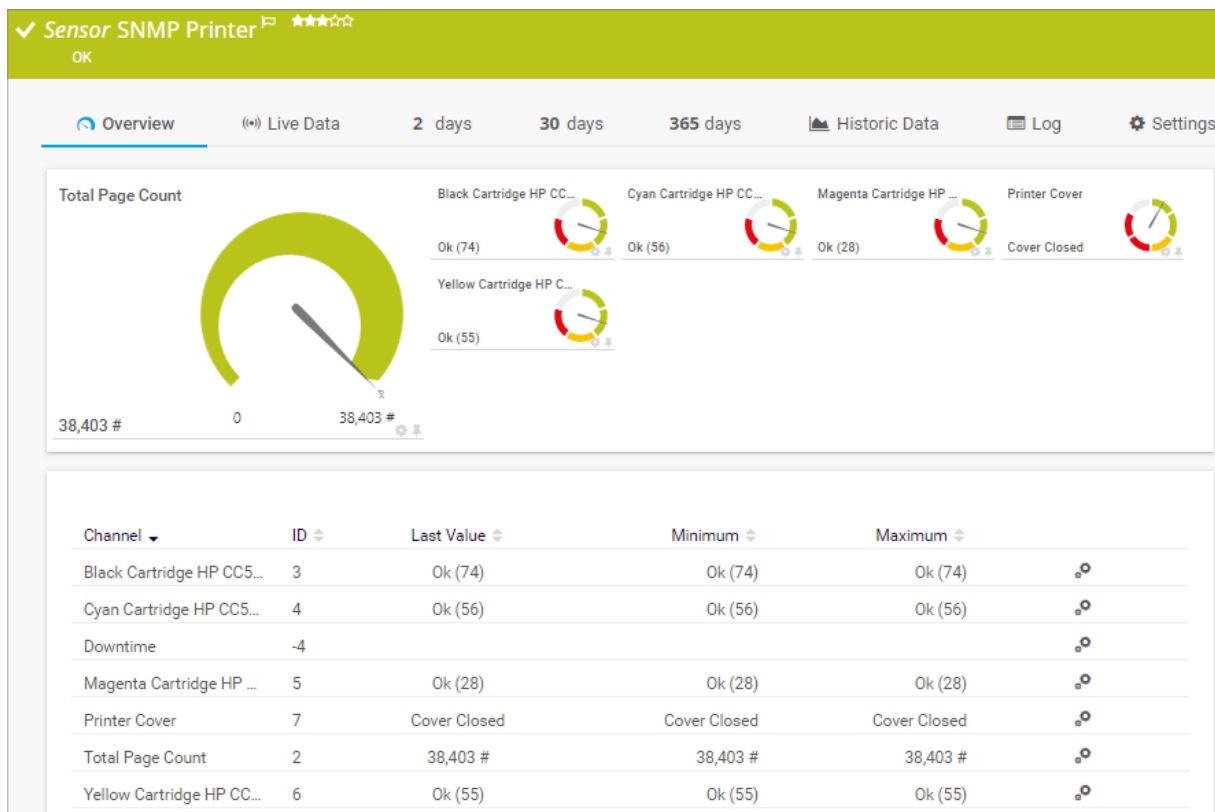
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.198 SNMP Printer Sensor

The SNMP Printer sensor monitors various types of printers via the Simple Network Management Protocol (SNMP).

- ① The sensor supports the following printers, among others: [HP OfficeJet](#) printers, [HP LaserJet](#) printers, [RICOH SP 5200](#), [SP 3410](#), [SP C242DN](#), [MP C3003](#), and [MP C2503](#).
- ① The sensor also shows the printer status as the sensor message.
- For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Printer Sensor

Sensor in Other Languages

- Dutch: SNMP Printer
- French: Imprimante SNMP
- German: SNMP Drucker
- Japanese: SNMP プリンター
- Portuguese: Impressora de SNMP
- Russian: SNMP
- Simplified Chinese: SNMP 打印机
- Spanish: Impresora de SNMP

Remarks

- This sensor supports the following printers, among others: HP OfficeJet printers, HP LaserJet printers, RICOH SP 5200, SP 3410, SP C242DN, MP C3003, and MP C2503.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A tag input field containing "exampletag" with a close button (X) and an add button (+).
- Priority:** A section with five star icons, all of which are filled, indicating a priority of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmp ▪ printer
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display


Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <ul style="list-style-type: none"> ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.
Graph Type	<p>Define how different channels are shown for this sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes

Setting	Description
	<ul style="list-style-type: none"> ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Black Cartridge [Printer]	<p>The fill level of the cartridge</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: No Restriction, Not Empty, Ok ▪ Warning status: Low

Channel	Description
	<ul style="list-style-type: none"> ▪ Down status: Critical ▪ Unknown status: Unknown
Cyan Cartridge [Printer]	<p>The fill level of the cartridge</p> <ul style="list-style-type: none"> ▪ Up status: No Restriction, Not Empty, Ok ▪ Warning status: Low ▪ Down status: Critical ▪ Unknown status: Unknown
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Magenta Cartridge [Printer]	<p>The fill level of the cartridge</p> <ul style="list-style-type: none"> ▪ Up status: No Restriction, Not Empty, Ok ▪ Warning status: Low ▪ Down status: Critical ▪ Unknown status: Unknown
Printer Cover	<p>The status of the printer cover</p> <ul style="list-style-type: none"> ▪ Up status: Cover Closed, Interlock Closed ▪ Warning status: Other ▪ Down status: Cover Open, Interlock Open ▪ Unknown status: Unknown
Total Page Count	<p>The total number of printed pages</p> <p> This channel is the primary channel by default.</p>
Yellow Cartridge [Printer]	<p>The fill level of the cartridge</p> <ul style="list-style-type: none"> ▪ Up status: No Restriction, Not Empty, Ok ▪ Warning status: Low ▪ Down status: Critical ▪ Unknown status: Unknown

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

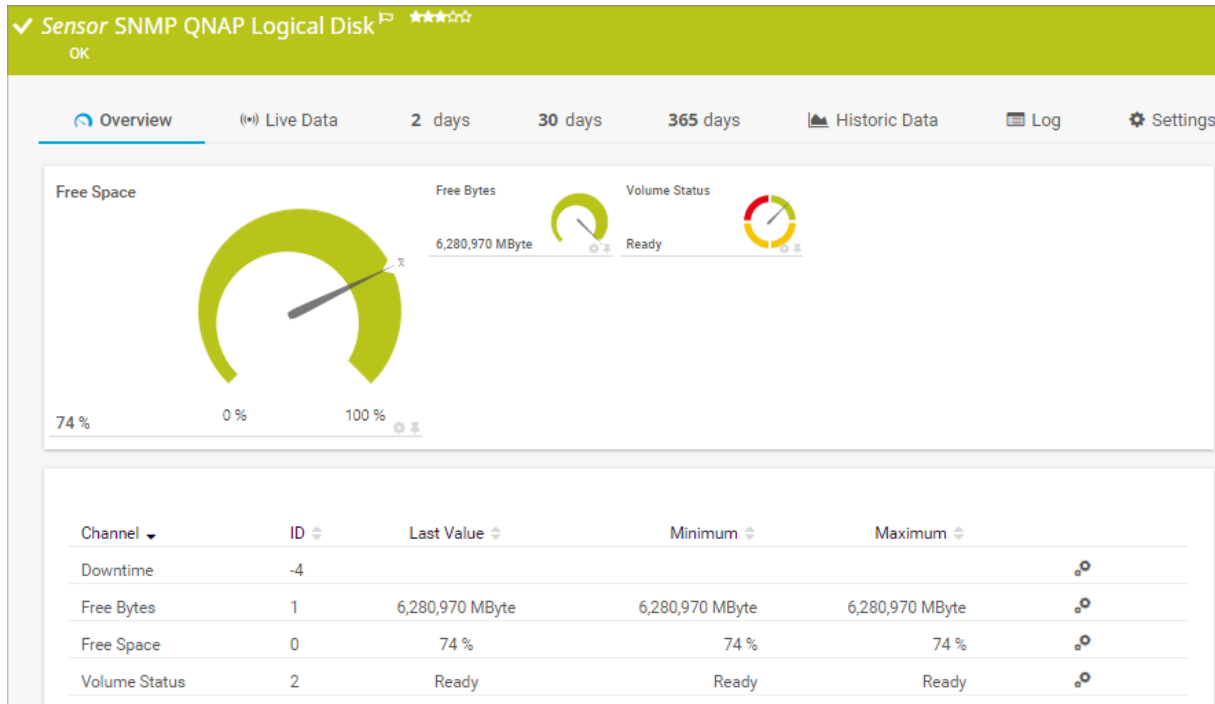
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.199 SNMP QNAP Logical Disk Sensor

The SNMP QNAP Logical Disk sensor monitors a logical disk in a Quality Network Appliance Provider (QNAP) network-attached storage (NAS) via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP QNAP Logical Disk Sensor

Sensor in Other Languages

- Dutch: SNMP QNAP Logische Schijf
- French: Disque logique QNAP SNMP
- German: SNMP QNAP Logischer Datenträger
- Japanese: SNMP QNAP 論理ディスク
- Portuguese: Disco lógico QNAP SNMP
- Russian: QNAP SNMP
- Simplified Chinese: SNMP QNAP 逻辑磁盘
- Spanish: Disco lógico de QNAP con SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

QNAP NAS Settings

Setting	Description
Disk	<p>Select the logical disks that you want to monitor. PRTG creates one sensor for each logical disk that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus sign, and a 'Priority' field with three stars selected.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags [145] that the sensor inherits [145] from its parent device [140], parent group [139], and parent probe [139]. <i>i</i> This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited [145]. <i>i</i> It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). <i>i</i> For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ snmpqnap ▪ qnap ▪ logicaldisk
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

QNAP NAS Settings

QNAP NAS Settings

Disk *i* 1

Description *i* [RAID5 Disk Volume: Host Drive: 1 2 3 4]

File System *i* EXT4

QNAP NAS Settings

Setting	Description
Disk	Shows the logical disk that this sensor monitors.

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Description	<p>Shows the name of the disk that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
File System	<p>Shows the file system of the disk that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display


Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Bytes	The free space in bytes
Free Space	The free space in percent This channel is the primary channel by default.

Channel	Description
Volume Status	The volume status <ul style="list-style-type: none">▪ Up status¹⁹⁷: Ready▪ Warning status: In Degraded Mode, Rebuilding, Synchronizing▪ Down status: Failure

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Why do I get DoS alarms on my QNAP?

- <https://kb.paessler.com/en/topic/80421>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

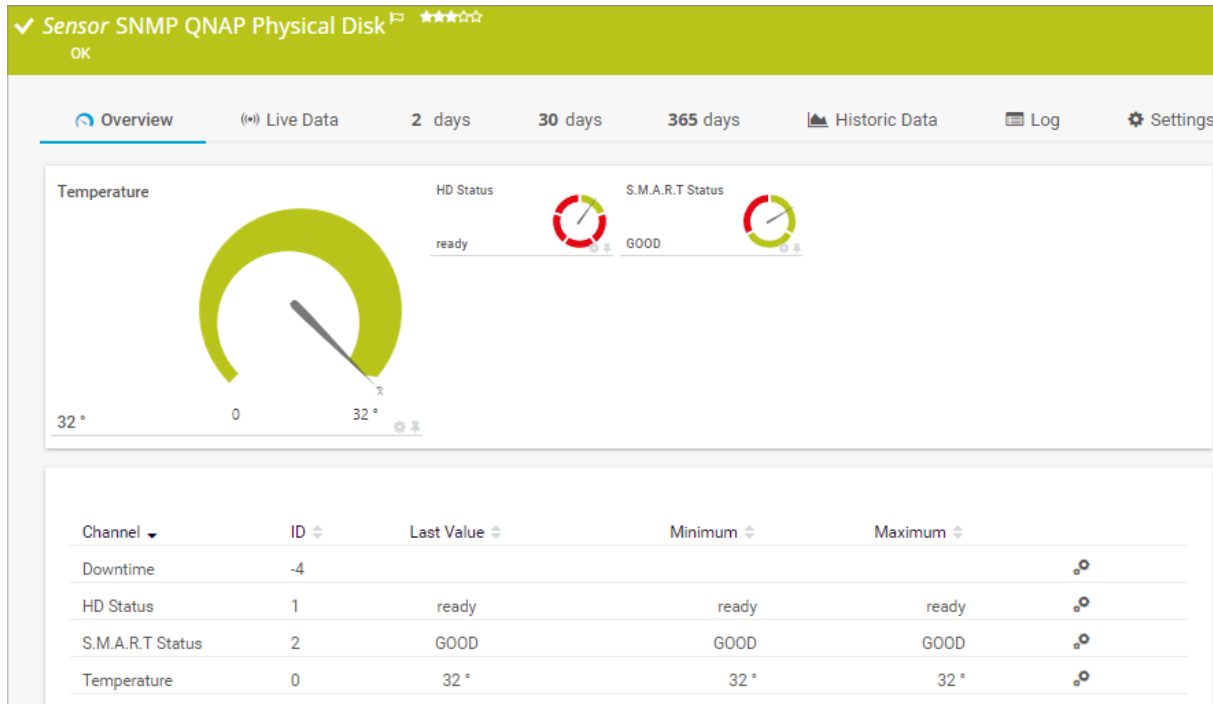
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.8.200 SNMP QNAP Physical Disk Sensor

The SNMP QNAP Physical Disk sensor monitors a physical disk in a Quality Network Appliance Provider (QNAP) network-attached storage (NAS) via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP QNAP Physical Disk Sensor

Sensor in Other Languages

- Dutch: SNMP QNAP Fysieke Schijf
- French: Disque physique QNAP SNMP
- German: SNMP QNAP Physikalischer Datenträger
- Japanese: SNMP QNAP 物理ディスク
- Portuguese: Disco físico QNAP SNMP
- Russian: QNAP SNMP
- Simplified Chinese: SNMP QNAP 物理磁盘
- Spanish: Disco físico de QNAP con SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

QNAP NAS Settings

Setting	Description
Disk	<p>Select the physical disks that you want to monitor. PRTG creates one sensor for each physical disk that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>
Unit	<p>Select the unit of the temperature measurement:</p> <ul style="list-style-type: none"> ▪ Celsius ▪ Fahrenheit

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has a title bar 'Basic Sensor Settings'. Below it, there are three rows of settings:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A text input field containing 'exampletag' with a blue 'x' to remove it and a '+' to add more.
- Priority**: A row of five stars, with the first three filled (yellow) and the last two empty (white).

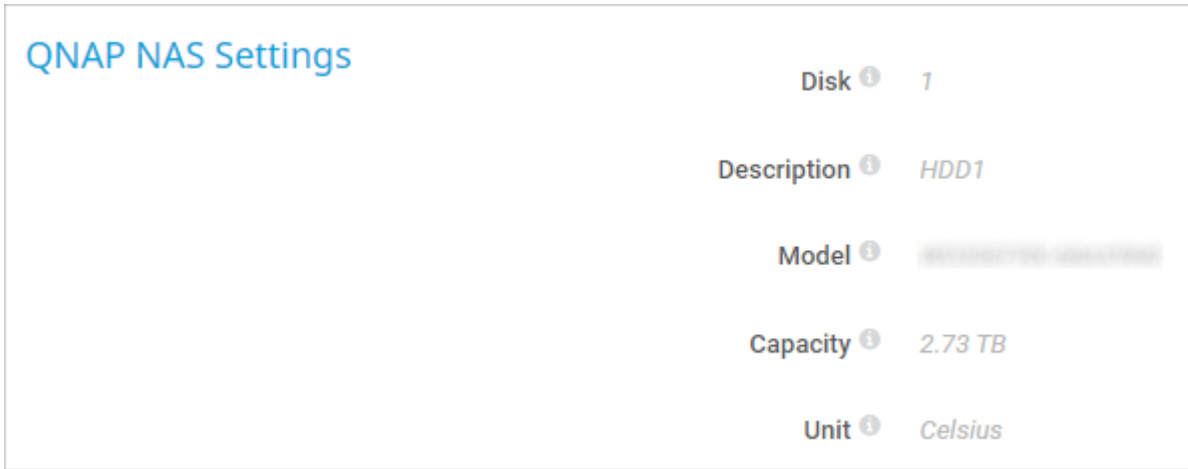
Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpqnap ▪ qnap ▪ physicaldisk
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

QNAP NAS Settings



QNAP NAS Settings

Setting	Description
Disk	Shows the physical disk that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Description	Shows information about the physical disk that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Model	Shows the model of the physical disk that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Capacity	Shows the capacity of the physical disk that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Unit	Shows the unit of the temperature measurement. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click ⓘ to interrupt the [inheritance](#).

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
HD Status	<p>The disk status</p> <ul style="list-style-type: none"> ▪ Up status: Ready ▪ Down status: Invalid, NoDisk, RwError, Unknown
S.M.A.R.T Status	<p>The Self-Monitoring, Analysis and Reporting Technology (S.M.A.R.T.) status of the disk</p> <ul style="list-style-type: none"> ▪ Up status: Good, Normal ▪ Down status: Bad
Temperature	<p>The temperature</p> <p> This channel is the primary channel by default.</p>

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Why do I get DoS alarms on my QNAP?

- <https://kb.paessler.com/en/topic/80421>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

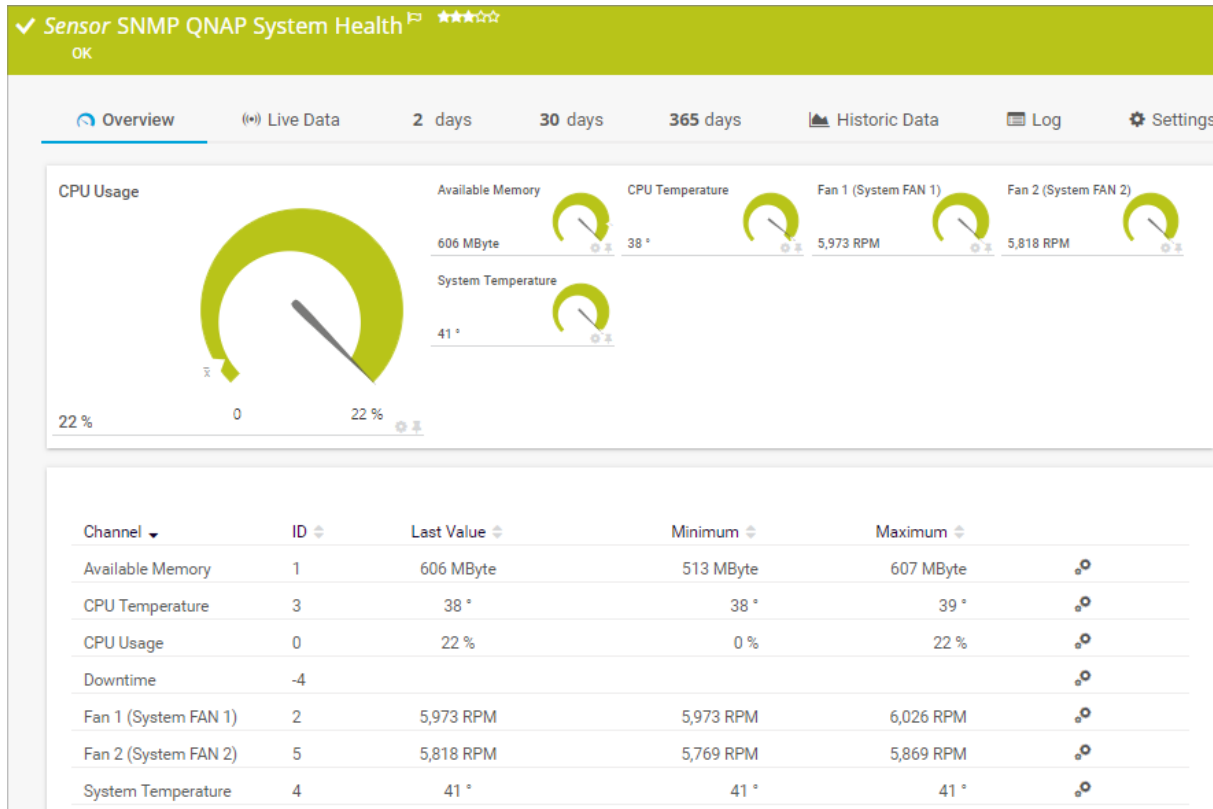
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.201 SNMP QNAP System Health Sensor

The SNMP QNAP System Health sensor monitors the system health of a Quality Network Appliance Provider (QNAP) network-attached storage (NAS) via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP QNAP System Health Sensor

Sensor in Other Languages

- Dutch: SNMP QNAP Systeemstatus
- French: État du système QNAP SNMP
- German: SNMP QNAP Systemzustand
- Japanese: SNMP QNAP システム正常性
- Portuguese: Funcionamento do sistema QNAP SNMP
- Russian: QNAP SNMP
- Simplified Chinese: SNMP QNAP 系统健康状况
- Spanish: Salud del sistema de QNAP con SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

- For a general introduction to the technology behind SNMP, see section [Monitoring via SNMP](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

QNAP NAS Settings

Setting	Description
Unit	Select the unit of the temperature measurement: <ul style="list-style-type: none"> Celsius Fahrenheit

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has a title bar 'Basic Sensor Settings'. Below the title bar, there are three rows of settings:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A list of tags with 'exampletag' selected and a plus sign to add more.
- Priority**: A star rating system with 5 stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree , as well as in alarms , logs , notifications , reports , maps , libraries , and tickets . <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <ul style="list-style-type: none"> ❗ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ❗ For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpqnap ▪ qnap ▪ systemhealth
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

❗ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

QNAP NAS Settings

QNAP NAS Settings
Unit ⓘ Celsius

QNAP NAS Settings

Setting	Description
Unit	<p>Shows the unit of temperature measurement that the sensor monitors.</p> <ul style="list-style-type: none"> ❗ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click ⓘ to interrupt the [inheritance](#).

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
Maintenance Window	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p> <p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Available Memory	The available memory in bytes
CPU Temperature	The CPU temperature
CPU Usage	<p>The CPU usage in percent</p> <p>i This channel is the primary channel by default.</p>
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Fan [#] (System FAN [#])	The fan revolutions per minute (RPM)
System Temperature	The system temperature

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Why do I get DoS alarms on my QNAP?

- <https://kb.paessler.com/en/topic/80421>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

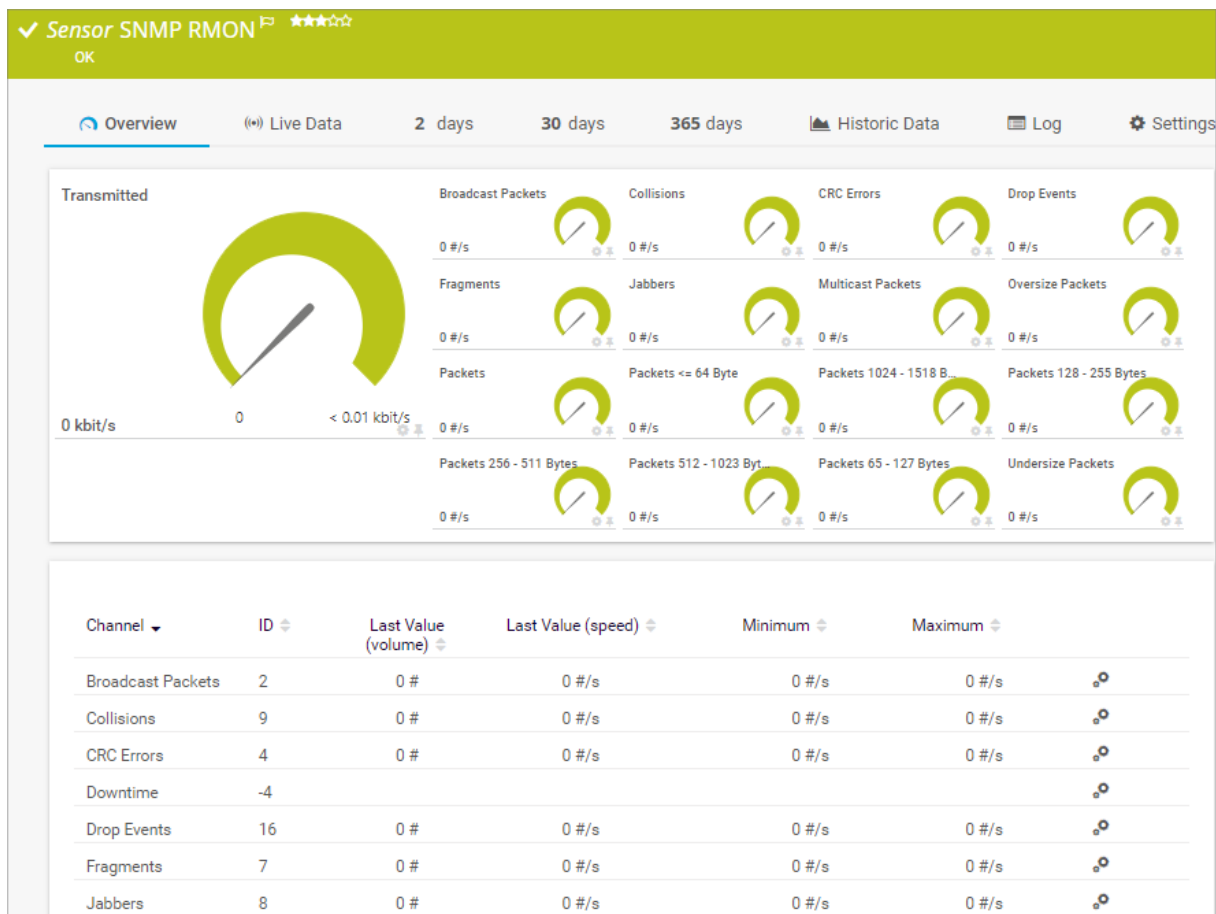
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.202 SNMP RMON Sensor

The SNMP RMON sensor monitors traffic on a device using the Remote Monitoring (RMON) standard via the Simple Network Management Protocol (SNMP).

i You can create it on an SNMP-compatible device that provides traffic data via RMON. Depending on the data that the device returns, PRTG displays traffic data for each port in different channels, which allows a detailed analysis. If available, the sensor queries 64-bit counters.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP RMON Sensor

Sensor in Other Languages

- Dutch: SNMP RMON
- French: RMON SNMP
- German: SNMP RMON
- Japanese: SNMP RMON
- Portuguese: SNMP RMON
- Russian: RMON SNMP
- Simplified Chinese: SNMP RMON

- Spanish: SNMP RMON

Remarks

- You can define the displayed sensor name with port name templates in the [SNMP compatibility options](#) ^[465] of the parent device.
- It might not work to query data from a probe device via SNMP (querying `localhost`, `127.0.0.1`, or `::1`). [Add this device to PRTG](#) ^[340] with the IP address that it has in your network and create the SNMP sensor on this device instead.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- See the Knowledge Base: [What value does the "Transmitted" channel of an RMON sensor show?](#)
- See the Knowledge Base: [Automatically update port name and number for SNMP Traffic sensors when the device changes them](#)
- See the Knowledge Base: [Where is the volume line in graphs?](#)

Add Sensor

The [Add Sensor](#) ^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

RMON Specific

Setting	Description
Ports	<p>Select the ports that you want to monitor. PRTG creates one sensor for each port that you select.</p> <ul style="list-style-type: none"> ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. ⓘ You can select interfaces and cancel the selection by clicking <code>Select all connected interfaces</code>, <code>Select all disconnected interfaces</code>, and <code>Deselect all interfaces</code>.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ +

Priority ⓘ ★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmprmon
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

RMON Specific

RMON Specific

Port ⓘ 1

Channel Mask ⓘ 131071

RMON Specific

Setting	Description
Port	Shows the number of the interface port that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Channel Mask	Describes which channels are available and might be useful for the Paessler support team. ⓘ This setting is for your information only. You cannot change it.

Sensor Display


Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⚙ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management^[153].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#)^[142].

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Broadcast Packets	The number of broadcast packets per second
Collisions	The number of collisions per second
CRC Errors	The number of cyclic redundancy check (CRC) errors per second

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Drop Events	The number of drop events per second
Fragments	The number of fragments per second
Jabbers	The number of jabbers per second
Multicast Packets	The number of multicast packets per second
Oversize Packets	The number of oversize packets per second
Packets	The number of packets per second
Packets <= 64 Byte	The number of packets with less than or equal to 64 bytes per second
Packets 65 - 127 Bytes	The number of packets with 65 - 127 bytes per second
Packets 128 - 255 Bytes	The number of packets with 128 - 255 bytes per second
Packets 256 - 511 Bytes	The number of packets with 256 - 511 bytes per second
Packets 512 - 1023 Bytes	The number of packets with 512 - 1023 bytes per second
Packets 1024 - 1518 Bytes	The number of packets with 1024 - 1518 bytes per second
Transmitted	The transmitted bytes per second  This channel is the primary channel by default.
Undersize Packets	The number of undersize packets per second

More

KNOWLEDGE BASE

What value does the "Transmitted" channel of an RMON sensor show?

- <https://kb.paessler.com/en/topic/59821>

Automatically update port name and number for SNMP Traffic sensors when the device changes them

Part 7: Device and Sensor Setup | 8 Sensor Settings
202 SNMP RMON Sensor

- <https://kb.paessler.com/en/topic/25893>

Where is the volume line in graphs?

- <https://kb.paessler.com/en/topic/61272>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

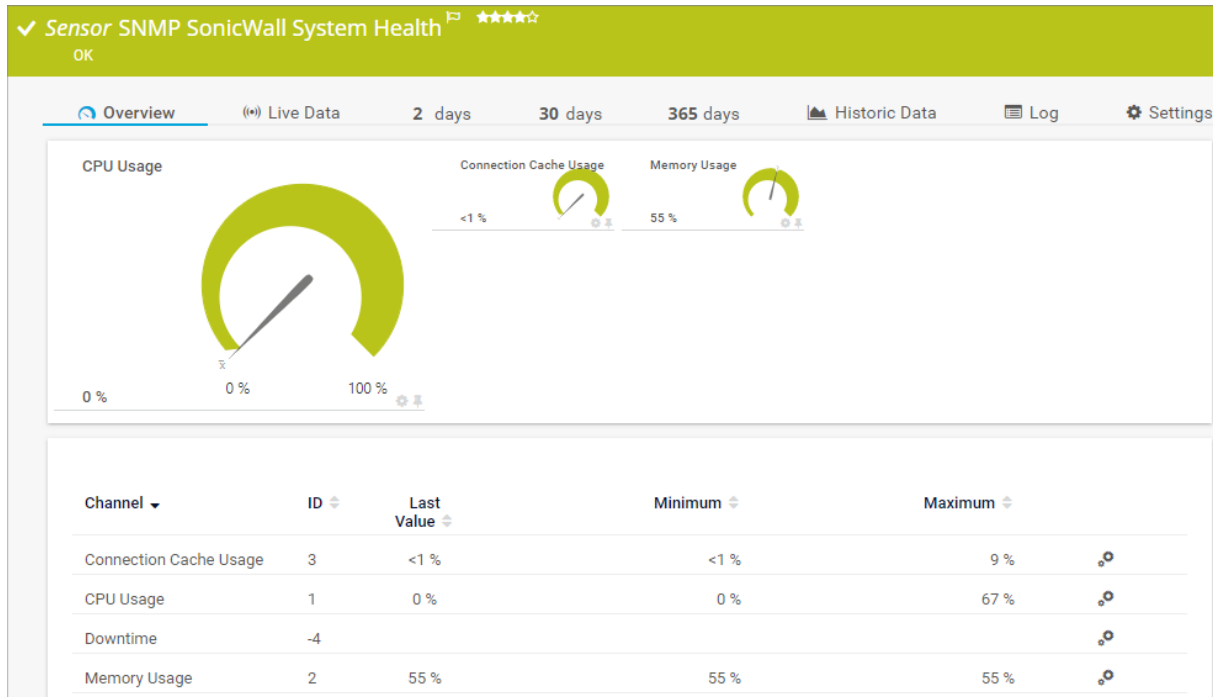
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.203 SNMP SonicWall System Health Sensor

The SNMP SonicWall System Health sensor monitors health values of a SonicWall Network Security Appliance (NSA) via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP SonicWall System Health Sensor

Sensor in Other Languages

- Dutch: SNMP SonicWall Systeem Gezondheid
- French: État du système SNMP SonicWall
- German: SNMP SonicWall Systemzustand
- Japanese: SNMP SonicWall システム正常性
- Portuguese: Funcionamento do sistema SonicWall SNMP
- Russian: SonicWall SNMP
- Simplified Chinese: SNMP SonicWall 系统健康状况
- Spanish: Salud del sistema de SonicWall con SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- See the Knowledge Base: [Why does PRTG write error messages into my SonicWall log?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog box. It has a title bar 'Basic Sensor Settings' in blue. Below the title bar, there are three rows of settings:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A text input field containing 'exampletag' with a blue 'x' icon to the right and a plus sign icon to the left of the input field.
- Priority**: A star rating system showing three filled stars and two empty stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> snmpsonicwallssystemhealthsensor systemhealth
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display

Sensor Display


Primary Channel ⁴⁴⁶ Downtime

Graph Type ⁴⁴⁶


Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB <input type="text"/>
	kbit <input type="text"/>
	/ <input type="text"/>
	sec... <input type="text"/>
Bytes (Memory)	MB <input type="text"/>
Bytes (Disk)	MB <input type="text"/>
Bytes (File)	Byte <input type="text"/>

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Connection Cache Used	The connection cache usage in percent
CPU Usage	<p>The CPU usage in percent</p> <p>ⓘ This channel is the primary channel by default.</p>

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Memory Usage	The memory usage in percent

More

KNOWLEDGE BASE

Why does PRTG write error messages into my SonicWall log?

- <https://kb.paessler.com/en/topic/61961>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

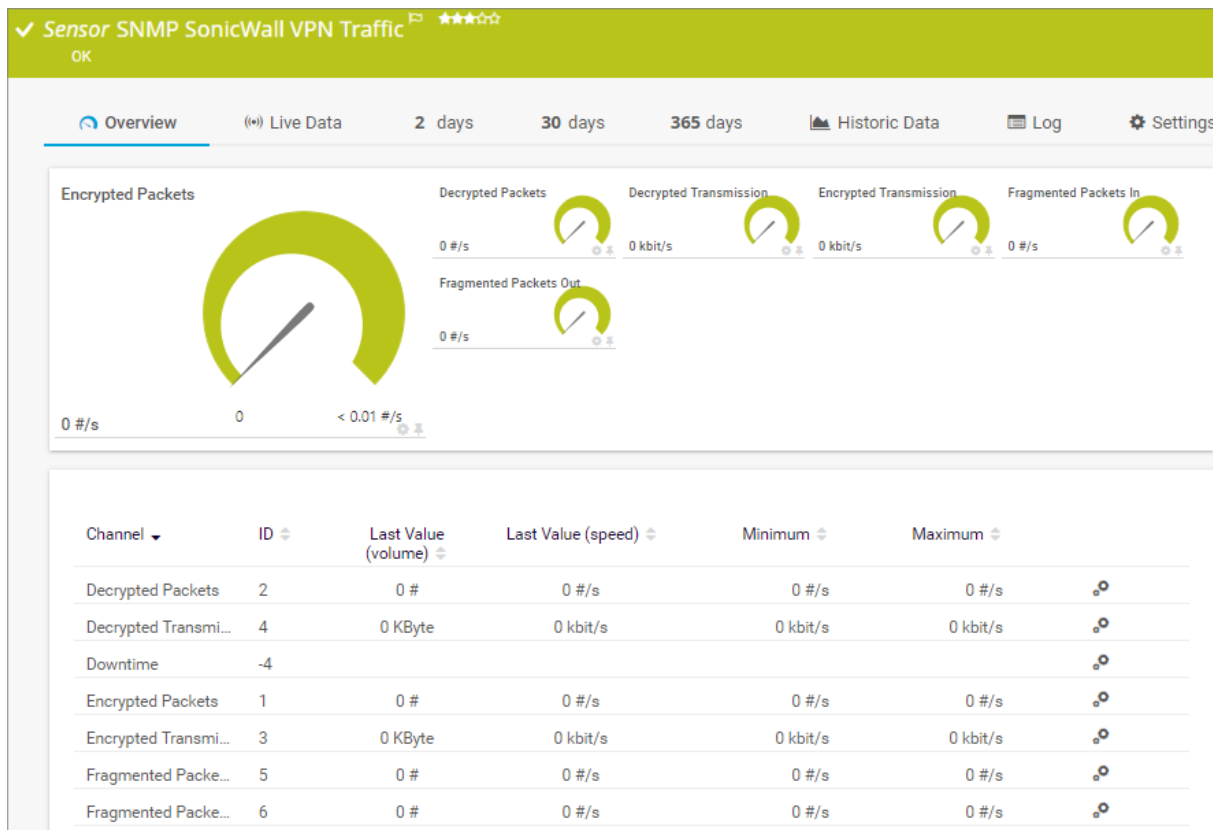
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.204 SNMP SonicWall VPN Traffic Sensor

The SNMP SonicWall VPN Traffic sensor monitors the traffic of an Internet Protocol Security (IPsec) VPN on a SonicWall Network Security Appliance (NSA) via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP SonicWall VPN Traffic Sensor

Sensor in Other Languages

- Dutch: SNMP SonicWall VPN Verkeer
- French: Trafic VPN SonicWall SNMP
- German: SNMP SonicWall VPN-Datenverkehr
- Japanese: SNMP SonicWall VPN トラフィック
- Portuguese: Tráfego de VPN SonicWall via SNMP
- Russian: VPN SonicWall SNMP
- Simplified Chinese: SNMP SonicWall VPN 流量
- Spanish: Tráfico SNMP de VPN SonicWall

Remarks

- This sensor supports the IPv6 protocol.

- This sensor has a very low performance impact.
- See the Knowledge Base: [Why does PRTG write error messages into my SonicWall log?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

SonicWall VPN Specific

Setting	Description
Connections	<p>Select the connections that you want to monitor. PRTG creates one sensor for each connection that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>
Identification Method	<p>Define how you want to identify the connection that you want to monitor:</p> <ul style="list-style-type: none"> ▪ Index: Every connection has a unique index. This is the safest method to identify your connection. If the connection is lost and reconnected, it receives a new index. ▪ Remote IP address: If the target of the VPN always has the same IP address, you can use this IP address to identify the connection. ▪ Security policy name: If you use a different security policy for every VPN, you can use its name to identify the connection. ▪ Remote IP address and security policy name: You can also combine both identification methods. ▪ Remote IP address, security policy name, and IP address ranges: If you use separate connections for specific IP address ranges, identify the connection by remote IP address, security policy name, and IP address ranges. ▪ IP address ranges: Use IP address ranges only to identify the connection. <p>i The sensor always uses the first connection that it finds that matches all criteria.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ X +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpsonicwallvpntrafficsensor ▪ traffic
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SonicWall VPN Specific

SonicWall VPN Specific	
Security Policy ⓘ	WAN GroupVPN
Remote IP Address ⓘ	192.0.2.0
Source IP Addresses ⓘ	0.0.0.0 - 255.255.255.255
Destination IP Addresses ⓘ	0.0.0.0 - 255.255.255.255
Index ⓘ	82
Identification Method ⓘ	Index

SonicWall VPN Specific

Setting	Description
Security Policy	Shows the security policy of the connection that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Remote IP Address	Shows the remote IP address of the connection that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Source IP Addresses	Shows the source IP addresses of the connection that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Destination IP Addresses	Shows the destination IP addresses of the connection that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Index	Shows the index of the connection that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Identification Method	Shows the identification method of the connection that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
<input type="radio"/> inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited



Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².


Channel Unit Configuration

 inherit from  Root


Channel Unit Types ¹


Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
sec... ▼	
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Decrypted Packets	The number of decrypted packets per second
Decrypted Transmissions	The decrypted transmissions in bytes per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Encrypted Packets	<p>The number of encrypted packets per second</p> <p> This channel is the primary channel by default.</p>
Encrypted Transmissions	The encrypted transmissions in bytes per second
Fragmented Packets In	The number of incoming fragmented packets per second
Fragmented Packets Out	The number of outgoing fragmented packets per second

More

KNOWLEDGE BASE

Why does PRTG write error messages into my SonicWall log?

Part 7: Device and Sensor Setup | 8 Sensor Settings
204 SNMP SonicWall VPN Traffic Sensor

- <https://kb.paessler.com/en/topic/61961>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

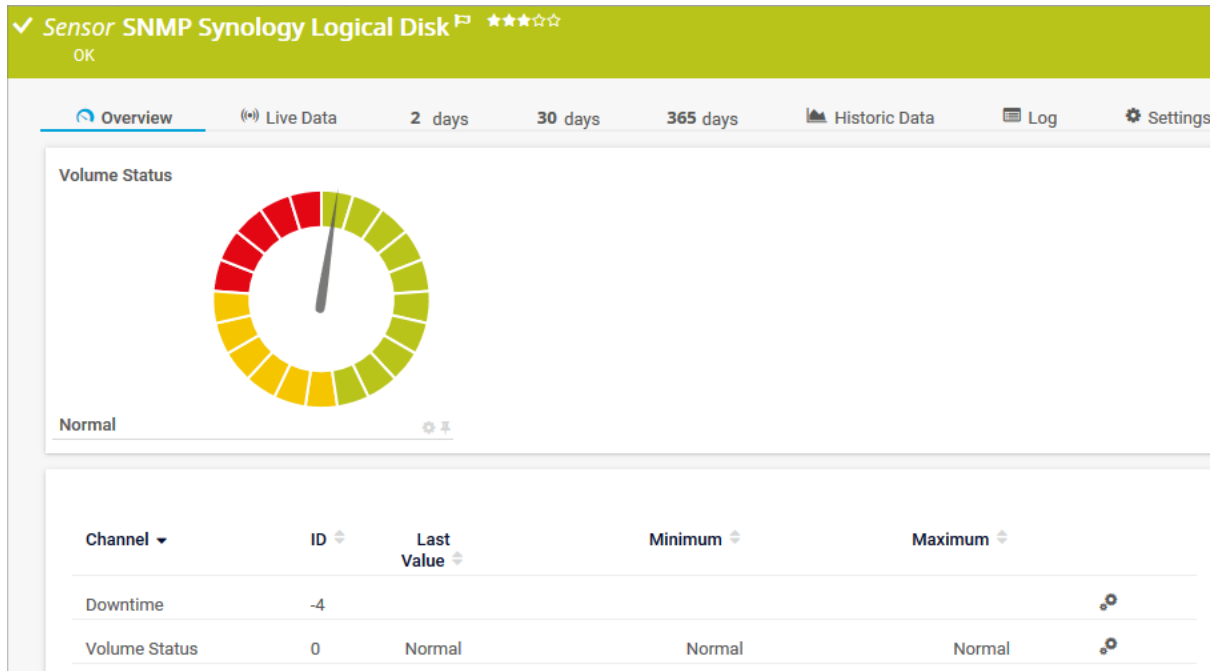
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.205 SNMP Synology Logical Disk Sensor

The SNMP Synology Logical Disk sensor monitors a logical disk in a Synology network-attached storage (NAS) via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Synology Logical Disk Sensor

Sensor in Other Languages

- Dutch: SNMP Synology Logische Schijf
- French: Disque logique Synology SNMP
- German: SNMP Synology Logischer Datenträger
- Japanese: SNMP Synology 論理ディスク
- Portuguese: Disco lógico Synology SNMP
- Russian: Synology SNMP
- Simplified Chinese: SNMP Synology 逻辑磁盘
- Spanish: Disco lógico de Synology con SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Synology NAS Settings

Setting	Description
Disk	<p>Select the logical disks that you want to monitor. PRTG creates one sensor for each logical disk that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' configuration window. It includes the following elements:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a plus sign icon to the right.
- Priority:** A field with five star icons, three of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags [145] that the sensor inherits [145] from its parent device [140], parent group [139], and parent probe [139]. <p>i This setting is for your information only. You cannot change it.</p>
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited [145]. <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpsynology ▪ synology ▪ logicaldisk
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).


i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Synology NAS Settings

Synology NAS Settings
Disk ⓘ Volume 1


Synology NAS Specific


Setting	Description
Disk	Shows the name of the disk that this sensor monitors.

Setting	Description
	<p> PRTG shows this value for reference purposes only. We strongly recommend that you only change it if the Paessler support team explicitly asks you to do so. Wrong usage can result in incorrect monitoring data.</p>




Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type 
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁸⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None


Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays


Setting	Description
	<ul style="list-style-type: none"> ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency.


Setting	Description
	<ul style="list-style-type: none"> Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies [4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector [251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].


Access Rights

inherit from  Root


User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

-  Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Volume Status	<p>The status of a volume</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: Converting SHR to Pool, Data Scrubbing, Deploying, Expanding Unfinished SHR, Migrating SHR to Pool, Migrating SHR1 to SHR2, Mounting Cache, Normal, Parity Checking, Undeploying, Unmounting Cache ▪ Warning status: Assembling, Creating, Expanding, Migrating, Repairing, Syncing ▪ Down status: Canceling, Crashed, Degrade, Deleting, Unknown <p> This channel is the primary channel by default.</p>

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

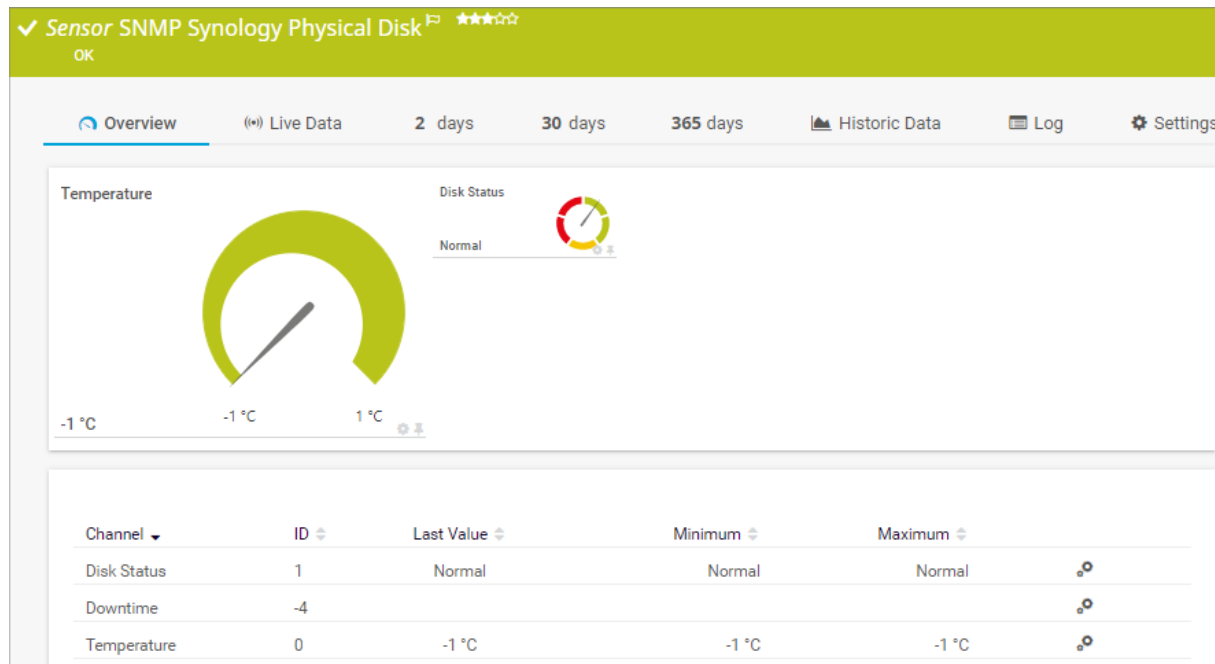
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.206 SNMP Synology Physical Disk Sensor

The SNMP Synology Physical Disk sensor monitors a physical disk in a Synology network-attached storage (NAS) via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Synology Physical Disk Sensor

Sensor in Other Languages

- Dutch: SNMP-Synology Fysieke Schijf
- French: Disque physique Synology SNMP
- German: SNMP Synology Physikalischer Datenträger
- Japanese: SNMP Synology 物理ディスク
- Portuguese: Disco físico Synology SNMP
- Russian: Synology SNMP
- Simplified Chinese: SNMP Synology 物理磁盘
- Spanish: Disco físico de Synology con SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Synology NAS Settings

Setting	Description
Disk	<p>Select the physical disks that you want to monitor. PRTG creates one sensor for each physical disk that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus sign, and a 'Priority' field with three stars selected.

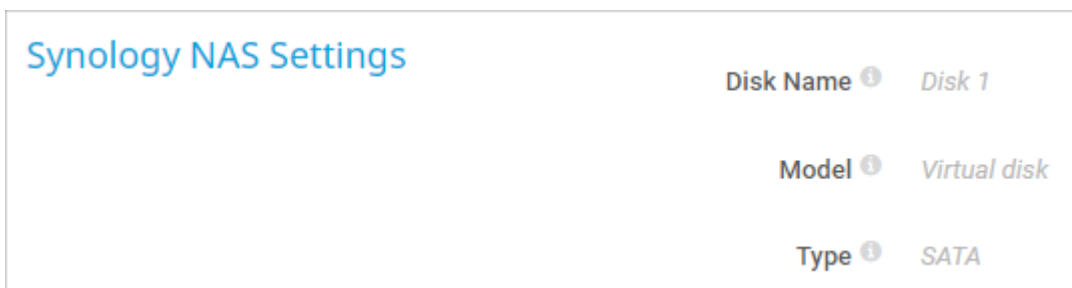
Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpsynology ▪ synology ▪ physicaldisk
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Synology NAS Settings



Synology NAS Settings

Setting	Description
Disk Name	Shows the name of the disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Model	Shows the model of the physical disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Type	Shows the type of the physical disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor. ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.
Graph Type	Define how different channels are shown for this sensor: <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ⓘ).

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Disk Status	<p>The disk status</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: Initialized, Normal ▪ Warning status: NotInitialized ▪ Down status: Crashed, SystemPartitionFailed

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Temperature	The temperature  This channel is the primary channel by default.

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

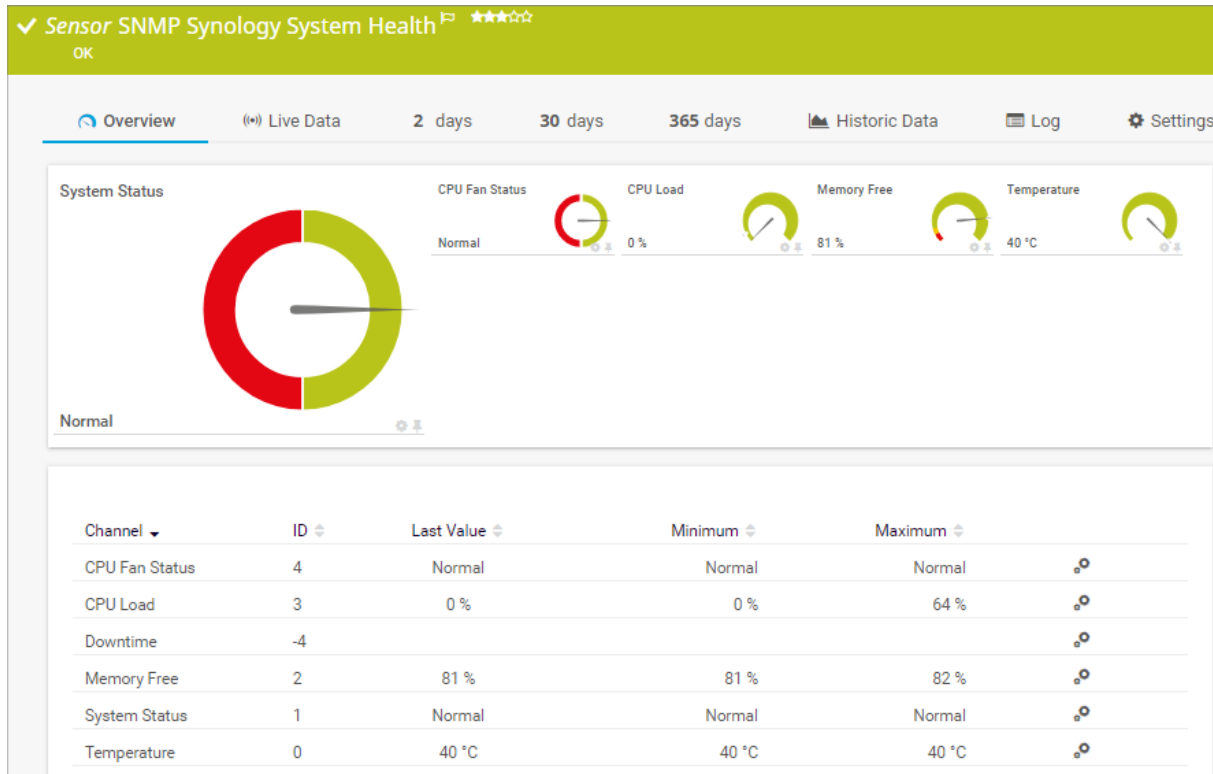
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.207 SNMP Synology System Health Sensor

The SNMP Synology System Health sensor monitors the system health of a Synology network-attached storage (NAS) via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Synology System Health Sensor

Sensor in Other Languages

- Dutch: SNMP-Synology Systeem Status
- French: Étatdu système Synology SNMP
- German: SNMP Synology Systemzustand
- Japanese: SNMP Synology システム正常性
- Portuguese: Funcionamento do sistema Synology SNMP
- Russian: Synology SNMP
- Simplified Chinese: SNMP Synology 系统健康状况
- Spanish: Salud del sistema de Synology con SNMP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).
- See the Knowledge Base: [Why does my Synology System Health sensor show incorrect CPU and memory values?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections: 'Sensor Name' with the value 'Example Name', 'Tags' with a list containing 'exampletag', and 'Priority' set to 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpsynology ▪ synology ▪ systemhealth
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display

Sensor Display

Primary Channel **i** Downtime


Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU Fan Status	<p>The CPU fan status</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: Normal ▪ Down status: Failed
CPU Load	The CPU load in percent

Channel	Description
	<p>■ For more information about the shown memory and CPU load values, see the Knowledge Base: Why does my Synology System Health sensor show incorrect CPU and memory values?</p>
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Memory Free	<p>The free memory in percent</p> <p>■ For more information about the shown memory and CPU load values, see the Knowledge Base: Why does my Synology System Health sensor show incorrect CPU and memory values?</p>
Power Status	<p>The power status</p> <ul style="list-style-type: none"> ▪ Up status: Normal ▪ Down status: Failed
System Fan Status	<p>The system fan status</p> <ul style="list-style-type: none"> ▪ Up status: Normal ▪ Down status: Failed
System Status	<p>The system status</p> <ul style="list-style-type: none"> ▪ Up status: Normal ▪ Down status: Failed <p>ⓘ This channel is the primary channel by default.</p>
Temperature	The temperature

More

■ KNOWLEDGE BASE

Why does my Synology System Health sensor show incorrect CPU and memory values?

- <https://kb.paessler.com/en/topic/63283>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>





My SNMP sensors don't work. What can I do?

Part 7: Device and Sensor Setup | 8 Sensor Settings
207 SNMP Synology System Health Sensor

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

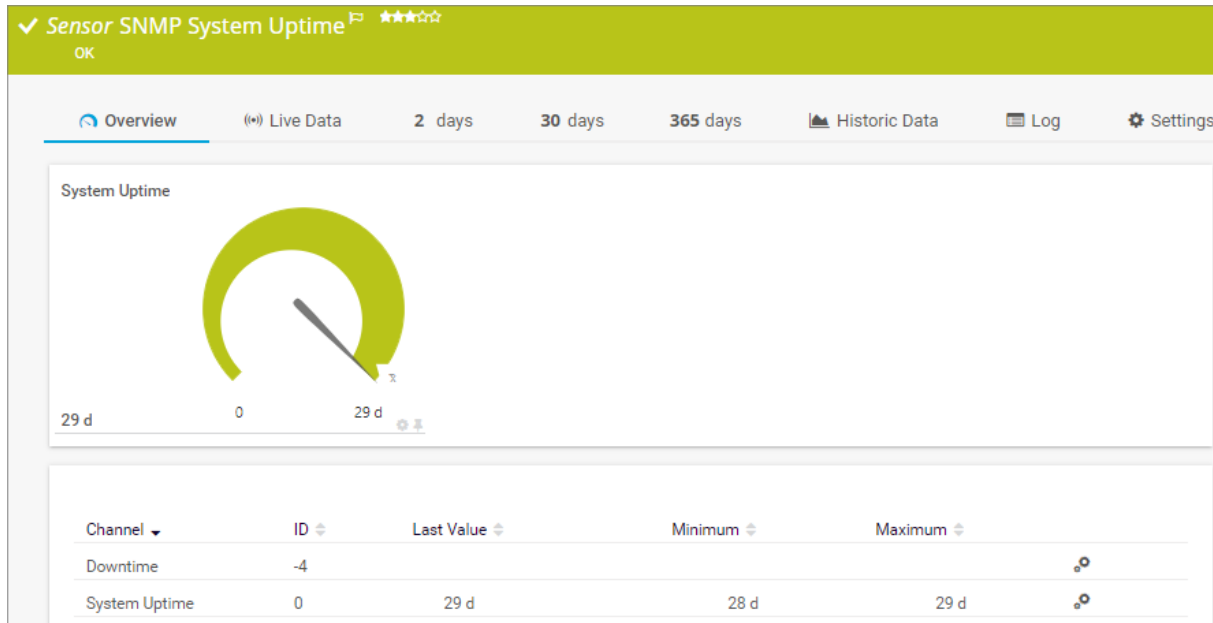
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.208 SNMP System Uptime Sensor

The SNMP System Uptime sensor monitors the uptime of a device via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP System Uptime Sensor

Sensor in Other Languages

- Dutch: SNMP Systeem Uptime
- French: Disponibilité du système SNMP
- German: SNMP Laufzeit
- Japanese: SNMP システムアップタイム
- Portuguese: Tempo de atividade do sistema SNMP
- Russian: SNMP
- Simplified Chinese: SNMP 系统正常运行时间
- Spanish: Disponibilidad SNMP

Remarks

- It might not work to query data from a probe device via SNMP (querying `localhost`, `127.0.0.1`, or `::1`). [Add this device to PRTG](#) with the IP address that it has in your network and create the SNMP sensor on this device instead.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- See the Knowledge Base: [Why does the SNMP System Uptime sensor report wrong values?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name**: A text input field containing "Example Name".
- Tags**: A list of tags with "exampletag" selected, and a plus sign to add more.
- Priority**: A star rating system showing 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> snmpuptimesensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display

Sensor Display


Primary Channel **ⓘ** Downtime

Graph Type **ⓘ** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



For more information, see section [Inheritance of Settings](#).


Scanning Interval

Click  to interrupt the inheritance.


Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
System Uptime	<p>The system uptime</p> <p> This channel is the primary channel by default.</p>

More

KNOWLEDGE BASE

Why does the SNMP System Uptime sensor report wrong values?

- <https://kb.paessler.com/en/topic/61249>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

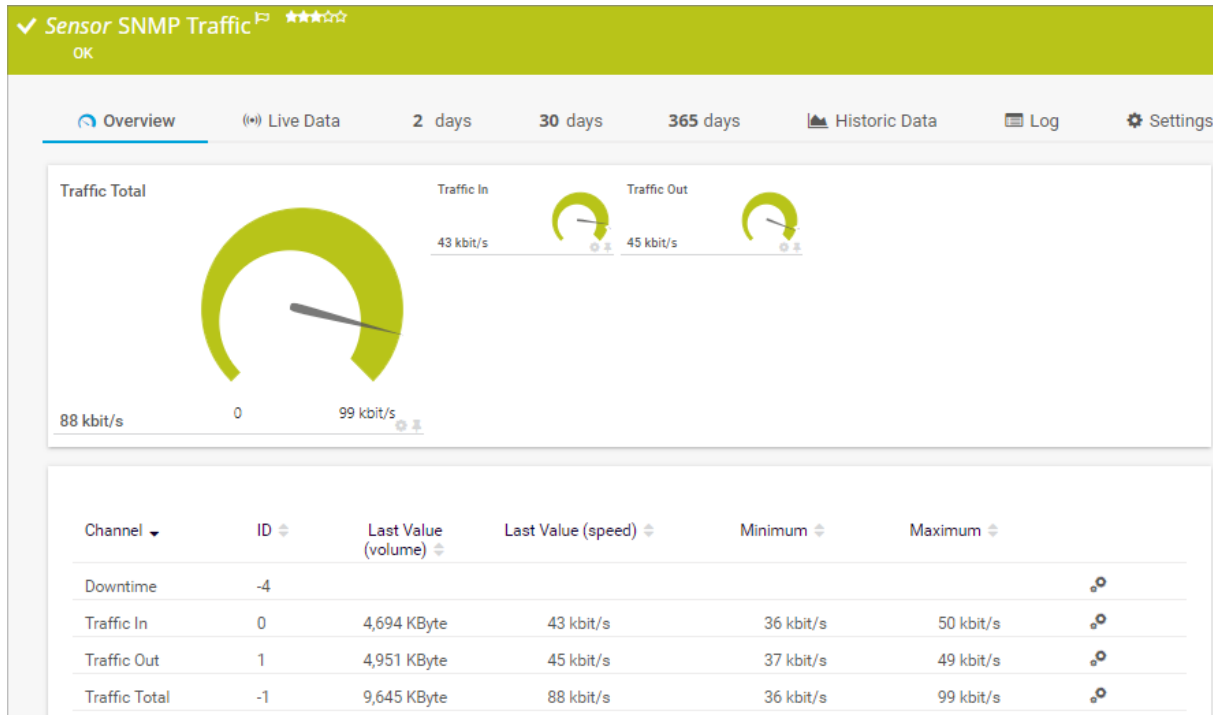
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.209 SNMP Traffic Sensor

The SNMP Traffic sensor monitors traffic on a device via the Simple Network Management Protocol (SNMP).

i You can create the sensor on a device that provides traffic data.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)³¹⁰⁵.



SNMP Traffic Sensor

Sensor in Other Languages

- Dutch: SNMP Verkeer
- French: Traffic SNMP
- German: SNMP Datenverkehr
- Japanese: SNMP トラフィック
- Portuguese: Tráfego SNMP
- Russian: SNMP
- Simplified Chinese: SNMP 流量
- Spanish: SNMP tráfico

Remarks

- You can define the displayed sensor name with port name templates in the [SNMP compatibility options](#)⁴⁶³ of the parent device.

- We recommend that you select SNMP v2c (most common) or SNMP v3 in the [credentials for SNMP devices](#)^[455] of the parent device (if supported by the device that you monitor). SNMP v1 does not support 64-bit counters, which may result in invalid data. For details, see the Knowledge Base: [SNMP Traffic Sensor suddenly drops at 610Mbps](#)
- It might not work to query data from a probe device via SNMP (querying localhost, 127.0.0.1, or ::1). [Add this device to PRTG](#)^[340] with the IP address that it has in your network and create the SNMP sensor on this device instead.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- The [auto-discovery](#)^[296] always creates SNMP Traffic sensors for all interfaces whose SNMP traffic counters are above 0. As a result, every interface that has had traffic since the last restart of the monitored device is added, even if it is currently disconnected or disabled. For details, see the Knowledge Base: [How does auto-discovery with SNMP Traffic sensors work?](#)
- See the Knowledge Base: [Automatically update port name and number for SNMP Traffic sensors when the device changes them](#)
- See the Knowledge Base: [Where is the volume line in graphs?](#)

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Traffic Specific

Setting	Description
Interface Number	<p>Select the ports on SNMP devices with multiple interfaces that you want to monitor. PRTG creates one sensor for each port that you select.</p> <ul style="list-style-type: none"> ❗ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. ❗ You can see the connection status of an interface in the respective table column. ❗ You can select interfaces and cancel the selection by clicking Select all connected interfaces, Select all disconnected interfaces, and Deselect all interfaces.
Name for Traffic In Channel	<p>For the standard channel Traffic In, enter the channel name here. The sensor shows it in graphs and tables. You can change this description and the description of all other channels in the channel settings^[397] later.</p>
Name for Traffic Out Channel	<p>For the standard channel Traffic Out, enter the channel name here. The sensor shows it in graphs and tables. You can change this description and the description of all other channels in the channel settings later.</p>

Setting	Description
Name for Traffic Total Channel	For the standard channel Traffic Total, enter the channel name here. The sensor shows it in graphs and tables. You can change this description and the description of all other channels in the channel settings later.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' configuration page. It includes the following elements:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list of tags with 'exampletag' selected, accompanied by a close button (X) and an add button (+).
- Priority:** A star rating system showing 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ bandwidthsensor ▪ snmptrafficsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Traffic Specific

Traffic Specific

Interface Number ⓘ 1:Alias 1

Additional Channels ⓘ

- Errors in and Errors out
- Discards in and Discards out
- Unicast packets in and Unicast packets out
- Non Unicast packets in and Non Unicast packets out (32-bit only)
- Multicast packets in and Multicast packets out (64-bit only)
- Broadcast packets in and Broadcast packets out (64-bit only)
- Unknown Protocols

Connection Status Handling ⓘ

- Show down status for all disconnected states
- Show down status when disconnected, ignore when deactivated
- Ignore all disconnected states

Alias Availability ⓘ 2

Traffic Specific

Setting	Description
Interface Number	<p>Shows the number and name of the interface in the physical device that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. We strongly recommend that you only change it if the Paessler support team explicitly asks you to do so. Wrong usage can result in incorrect monitoring data.</p>
Additional Channels	<p>By default, each SNMP Traffic sensor creates the channels Traffic In, Traffic Out, and Traffic Total. Select additional channels for all interfaces. Click the respective channel names to mark the channels and to monitor their data.</p> <p>You can choose between the following additional channels:</p> <ul style="list-style-type: none"> ▪ Errors in and Errors out: The number of incoming and outgoing packets that could not be delivered because of errors. ▪ Discards in and Discards out: The number of discarded incoming and outgoing packets even though no errors have been detected. ▪ Unicast packets in and Unicast packets out: The number of unicast packets that have been delivered. ▪ Non Unicast packets in and Non Unicast packets out (32-bit only): The number of non-unicast packets that have been delivered. ▪ Multicast packets in and Multicast packets out (64-bit only): The number of delivered packets that were addressed to a multicast address. ▪ Broadcast packets in and Broadcast packets out (64-bit only): The number of delivered packets that were addressed to a broadcast address ▪ Unknown Protocols: The number of received packets that were discarded because of an unknown or unsupported protocol. <p>i You cannot delete additional channels later. You can only disable them.</p> <p>i If the sensor shows the Warning status ¹⁹⁷ with the message Channels not available, you can disable the affected channels to remove the warning.</p>
Connection Status Handling	<p>Define how PRTG reacts when an interface is operational. An interface that is not operational is, for example, an Ethernet port on a switch with no cable plugged in. This setting is valid for all selected interfaces. Choose between:</p> <ul style="list-style-type: none"> ▪ Show down status for all disconnected states: Show the Down status for a disconnected interface. This applies if the ifOperStatus of the interface is not "up". ▪ Show down status when disconnected, ignore when deactivated: Show the Down status for a disconnected interface only if it is not deliberately deactivated in the configuration. This applies if the ifOperStatus of the interface is not "up" and the ifAdminStatus is "up". So the sensor stays in the Up status when the interface has been deactivated. ▪ Ignore all disconnected states: Show the Up status. <p>i Monitoring is discontinued without notice.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none"> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷). ▪ Show in and out traffic as positive and negative area graph: Show channels for incoming and outgoing traffic as positive and negative area graph. This visualizes your traffic in a clear way. <ul style="list-style-type: none"> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings). Manual scaling is not possible if you choose this option. ⓘ You cannot show a positive/negative graph for a channel if you choose to display its data in percent of maximum (available in the channel settings).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>


Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.


For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
<input type="radio"/> inherit from  Root	Scanning Interval ⓘ 60 seconds
	If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None


Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays


Setting	Description
	<ul style="list-style-type: none"> ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency.


Setting	Description
	<ul style="list-style-type: none"> Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies [4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector [257] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited



Access Rights

Setting	Description
User Group Access	<p>Define the user groups ¹⁴² that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².


Channel Unit Configuration

 inherit from  Root


Channel Unit Types ¹


Channel Type	Unit
Bytes (Bandwidth)	MB ▼
	Mbit ▼
	/
	second ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Discards In	The number of incoming discards per second
Discards Out	The number of outgoing discards per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Errors In	The number of incoming errors per second
Errors Out	The number of outgoing errors per second
Non-Unicast In	The number of incoming non-unicast packets per second
Non-Unicast Out	The number of outgoing non-unicast packets per second
Traffic In	The incoming traffic in bytes per second
Traffic Out	The outgoing traffic in bytes per second
Traffic Total	<p>The total traffic in bytes per second</p> <p> This channel is the primary channel by default.</p>

Channel	Description
Unicast In	The number of incoming unicast packets per second
Unicast Out	The number of outgoing unicast packets per second
Unknown Protocols In	The number of incoming, unknown protocols per second

More

■ KNOWLEDGE BASE

How does auto-discovery with SNMP Traffic sensors work?

- <https://kb.paessler.com/en/topic/85407>

Automatically update port name and number for SNMP Traffic sensors when the device changes them

- <https://kb.paessler.com/en/topic/25893>

Where is the volume line in graphs?

- <https://kb.paessler.com/en/topic/61272>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

SNMP Traffic sensor suddenly drops at 610Mbps

- <https://kb.paessler.com/en/topic/67503>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

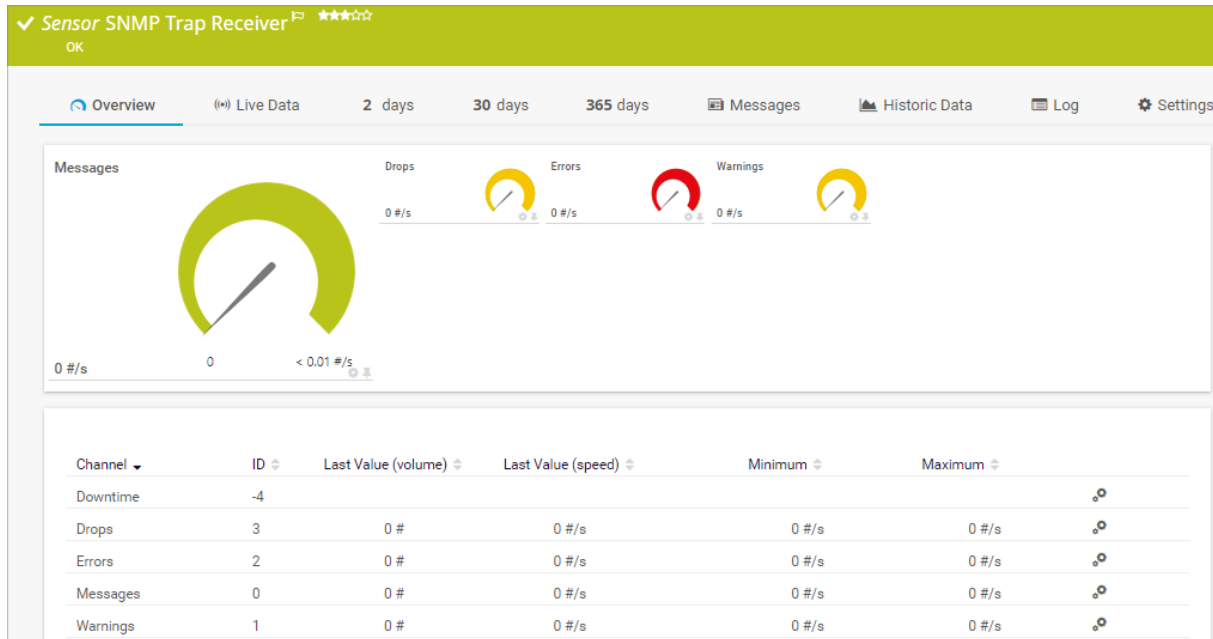
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.210 SNMP Trap Receiver Sensor

The SNMP Trap Receiver sensor receives and analyzes Simple Network Management Protocol (SNMP) traps.

i The sensor can also show the actual trap messages.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).





SNMP Trap Receiver Sensor

Sensor in Other Languages

- Dutch: SNMP Trap-ontvanger
- French: Récepteur de traps SNMP
- German: SNMP-Trap-Empfänger
- Japanese: SNMP トラップレシーバー
- Portuguese: Receptor de trap SNMP
- Russian: SNMP
- Simplified Chinese: SNMP 陷阱接收程序
- Spanish: Receptor de trap SNMP

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- This sensor does not support SNMP v3 traps. Use SNMP v1 or v2c instead.
- This sensor only supports the User Datagram Protocol (UDP).

- Add this sensor to the probe device to receive all messages of the remote probe system.
 - Add this sensor to a specific device to directly receive all messages from this device. This makes this sensor faster than when you use source filters.
 - This sensor supports the IPv6 protocol.
 - You can use specific placeholders in email [notification templates](#) ⁴¹³⁶ to see the messages when you receive an email notification. See section [List of Placeholders for Notifications](#) ⁴⁶⁶².
 - The [sensor states](#) ¹⁹⁷ of this sensor persist for one scanning interval only. After showing a Warning status or a Down status, and if there is no warning or error message in the following scanning interval, the sensor shows an Up status again. For a workaround, see the Knowledge Base: [How can I configure sensors using speed limits to keep the status for more than one interval?](#)
 - With the available filter options, you can individually define which types of messages the sensor considers for monitoring, and which messages it categorizes as warning or error messages. Depending on the filters, received messages are counted in the respective channels.
 - If you do not add the sensor to a probe device but to a different device in PRTG, be careful with the configuration: Ensure that the IP address or Domain Name System (DNS) name of the parent device matches the proper sender. For example, if you want to receive messages from a storage area network (SAN), you might have to add a device to PRTG using the IP address of a specific array member that sends the messages. Providing a DNS name that points to the IP address of a whole group might not work for SANs.
 - In PRTG on premises, you can copy the Management Information Base (MIB) file for your traps into the \MIB subfolder of the [PRTG program directory](#) ⁴⁵²⁶ to translate the object identifiers (OID) for the traps into readable messages. For details, see the Knowledge Base: [How can I show the name of a received OID in PRTG?](#)
 - You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
 - See the Knowledge Base: [How do I test an SNMP Trap Receiver Sensor?](#)
 - For a general introduction to the receiver's configuration, see section [Monitoring Syslogs and SNMP Traps](#) ⁴³²⁸.
-  You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.
-  To import MIB files into PRTG Hosted Monitor, [contact the Paessler support team](#) ⁴²⁶⁶.

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ +

Priority ⓘ ★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmptrapsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

SNMP Trap Specific

SNMP Trap Specific	
Port ⓘ	162
Purge Messages After ⓘ	2 hours

SNMP Trap Specific

Setting	Description
Port	Enter the number of the port on which the sensor listens for SNMP traps. The default port is 162. Enter an integer value. ⓘ We recommend that you use the default value.
Purge Messages After	Define for how long PRTG stores received trap messages for analysis. Choose a period of time from the dropdown list.

Filter

■ For detailed information, see section [Filter Rules](#) ³¹¹⁹.

Filter

Filters are formulas using AND, OR, NOT, brackets, and the following fields:

Field	Parameters	Examples
source[ip]	Enter a UDP source IP, IP range, or IP hostmask	source[10.0.23.50] source[10.0.23.10-50] source[10.0.23.10/24]
agent[text]	Enter the IP of the object that generates the trap (V1 only)	agent[10.0.0.1]
enterprise[oid]	Enter the OID of the object that generates the trap (V1 only)	enterprise[1.3.6.1.4.1.2.6.182.1.2.31.1.0]
bindings[text]	Enter a substring to match on all OIDs and values in the bindings	bindings[ERROR] bindings[1.3.6.1.4.1.2.6.182] bindings[*port blocked*]
bindings[oid,value]	Enter an OID and a substring (comma separated) to match a value in the defined OID	bindings[1.3.6.1.4.1.2.6.182.1.2.71.1.0,...]
bindings[oid,value,mode]	Enter an OID, a substring, and a mode (comma separated) to match a value in the bindings. Mode can be <ul style="list-style-type: none"> • <i>substring</i> • <i>exact</i> • <i>equal, greater, greaterorequal, less, lessorequal</i> 	bindings[1.3.6.1.4.1.2.6.182.1.2.71.1.0,...] bindings[1.3.6.1.4.1.2.6.182.1.2.71.1.0,...]
gentrap[number]	Enter a number or range of the generic trap type	gentrap[6] gentrap[2-4]
spectrap[number]	Enter a number or range of the specific trap code	spectrap[0] spectrap[1-2]
version[number]	Enter the SNMP version (1 or 2)	version[1] version[2]
community[text]	Enter the community string to match (exact, case sensitive)	community[public] community[private]

Fixed Include Filter *This sensor runs on a specific device, so the sensor filters incoming traps for the source IP address of this device and shows matching messages only. If you want to see all messages that are sent to the probe, create this sensor on the probe device.*

Include Filter ⓘ any

Exclude Filter ⓘ

Warning Filter ⓘ

Error Filter ⓘ

Filter

Setting	Description
Include Filter	Define if you want to filter traps. If you leave this field empty or use the keyword any , the sensor processes all data. To include only specific types of traps, define filters using a special syntax.
Exclude Filter	Define which types of traps the sensor discards and does not process. To exclude specific types of traps, define filters using a special syntax.
Warning Filter	Define which types of traps count for the Warnings channel. To categorize received traps as warning messages, define filters using a special syntax.

Setting	Description
	<p>i The sensor collects messages until a scanning interval ends. As long as the scanning interval is running, no status change happens. By default, the sensor changes to the Warning status^[197] after a scanning interval finishes and there was at least one warning message (and no error message) during this scanning interval. The sensor shows the Warning status at least until the succeeding scanning interval finishes. If the sensor does not receive any warning or error message in this scanning interval, its status changes to the Up status again with the start of the next scanning interval.</p>
Error Filter	<p>Define which types of traps count for the Errors channel. To categorize received traps as error messages, define filters using a special syntax.</p> <p>i The sensor collects messages until a scanning interval ends. As long as the scanning interval is running, no status change happens. By default, the sensor changes to the Down status after a scanning interval finishes and there was at least one error message during this scanning interval. The sensor shows the Down status at least until the succeeding scanning interval finishes. If the sensor does not receive any warning or error message in this scanning interval, its status changes to the Up status again with the start of the next scanning interval.</p>

Sensor Display


Sensor Display

Primary Channel Downtime


Graph Type
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
Stack Unit	<p>Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic.</p> <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p> <p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes

Setting	Description
	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None ▼

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management^[153].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#)^[142].

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from Root

Channel Unit Types ⓘ

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Debug Options

Debug Options

Result Handling ⓘ

Discard result

Store result

Debug Options

Setting	Description
Result Handling	Define what PRTG does with the sensor result:

Setting	Description
	<ul style="list-style-type: none"> ▪ Discard result (recommended): Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\debug subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. This setting is for debugging purposes. <p>i Use with caution. We recommend that you only use this setting for a short time because it can create huge data files.</p>

Filter Rules for Traps

Filter rules are used for the include, exclude, warning, and error definition fields of the SNMP Trap Receiver sensor. They are based on the following format:

```
field[filter]
```

You can use include and exclude filters to define which traps to monitor or use warning and error filters to define how to categorize received traps. Provide these filters in the sensor settings as formulas. Formulas are fields that you can combine with boolean operators ([AND](#), [OR](#), [NOT](#)) and brackets.

Field	Parameter	Examples
source[ip]	Enter an IP address where the UDPs come from. IP masks and ranges ⁴⁴⁸³ are also possible.	source[10.0.23.50], source[10.0.23.10-50], source[10.0.23.10/24]
agent[ip]	Enter an IP address that specifies the object that creates agent[10.0.0.1] the SNMP trap. i agent[ip] only supports v1.	
enterprise[oid]	Enter an OID that specifies the object that originates the trap. i enterprise[oid] only supports v1.	enterprise[1.3.6.1.4.1.2.6.182.1.2.31.1.0]
bindings[text]	Enter a substring to match all OIDs and values in the bindings.	bindings[ERROR], bindings[1.3.6.1.4.1.2.6.182.1.2.31.1.0], bindings["port blocked"] i It is not necessary to use quotation marks (") to find strings. If the string contains quotation marks that you want to include in the filter, you need to escape them with quotation marks.
bindings[oid,value]	Enter an OID and a substring to match a value in the specified OID. Separate the OID and the value with a comma.	bindings[1.3.6.1.4.1.2.6.182.1.2.31.1.0,error]

Field	Parameter	Examples
bindings	Enter an OID, a substring, and a mode to match a value in the specified OID. Separate the OID, the value, and the mode with a comma. The mode can be: <ul style="list-style-type: none"> ▪ substring: This is the default mode that works like bindings[oid,value]. ▪ exact: This mode enforces an exact match of a value. ▪ equal, greater, greaterorequal, less, or lessorequal: This interprets and compares values as numbers. <ul style="list-style-type: none"> ❗ This mode only supports integer values without extra characters and without thousands separators. ❗ It also supports hex format. 	bindings[1.3.6.1.4.1.2.6.182.1.2.31.1.0,error,exact] bindings[1.3.6.1.4.1.2.6.182.1.2.31.1.0,10,equal]
gentrap	Enter a number that specifies the generic trap type. <ul style="list-style-type: none"> ❗ You can also enter ranges. 	gentrap[3], gentrap[2-6]
spectrap	Enter a number that defines the specific trap code. <ul style="list-style-type: none"> ❗ You can also enter ranges. 	spectrap[4], spectrap[0-3]
version	Enter a number (1 or 2) that specifies the SNMP version.	version[1], version[2]
community	Enter a community string for an exact, case-sensitive match.	community[public], community[private]

Messages Tab: Review and Analyze Traps

PRTG stores received traps as common files in the \Trap Database subfolder of the PRTG data directory. To review and analyze all received messages, you can directly access the most recent data in a [table list](#) in the PRTG web interface. You can access this list via the sensor's Overview tab.

❗ PRTG only shows received traps in the table on the Overview tab after an (automatic) page refresh following a sensor scan. The default value for [auto refresh](#) is 30 seconds.


For more details and further filter options, click the Messages tab of the SNMP Trap Receiver sensor. You see all received messages in a table list. At the top, you have display filter options to drill down into the data for specific events of your interest. The filters are the same as those that are available in the sensor settings, but you can define them without using formulas. Provide the desired parameters and PRTG automatically loads the filtered list.

❗ PRTG automatically applies boolean operators to the filters in the following manner: parameters across all columns are combined with **AND**, and parameters within a single column are combined with **OR**.

❗ The parameters that you enter in the filters have to **exactly** match the parameters in the message. They are case sensitive.


❗ You can automatically add a filter by clicking the content of a column.


Advanced Filter Settings

You can open advanced filter settings by clicking  in the Filter row. The Advanced Filter appears in a popup window. In the text field, you can define a filter using the syntax as described in section [Filter Rules for Traps](#) ³¹¹⁹.

If you provided filter parameters on the Messages tab, the advanced filter already includes them as a corresponding formula with the correct syntax. You can adjust this filter to your needs. You can also copy the automatically created and manually adjusted formula for usage in the filter fields of the sensor settings.

Channel List

-  Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Drops	The number of dropped packets per second on the SNMP trap collector port
Errors	The number of messages categorized as "error" per second
Messages	The overall number of received traps per second  This channel is the primary channel by default.
Warnings	The number of messages categorized as "warning" per second

More

KNOWLEDGE BASE

What placeholders can I use with PRTG?

- <https://kb.paessler.com/en/topic/373>

How can I configure sensors using speed limits to keep the status for more than one interval?

- <https://kb.paessler.com/en/topic/73212>

How can I show the name of a received OID in PRTG?

- <https://kb.paessler.com/en/topic/63562>

How do I test an SNMP Trap Receiver sensor?

- <https://kb.paessler.com/en/topic/10193>

What security features does PRTG include?

Part 7: Device and Sensor Setup | 8 Sensor Settings
210 SNMP Trap Receiver Sensor

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

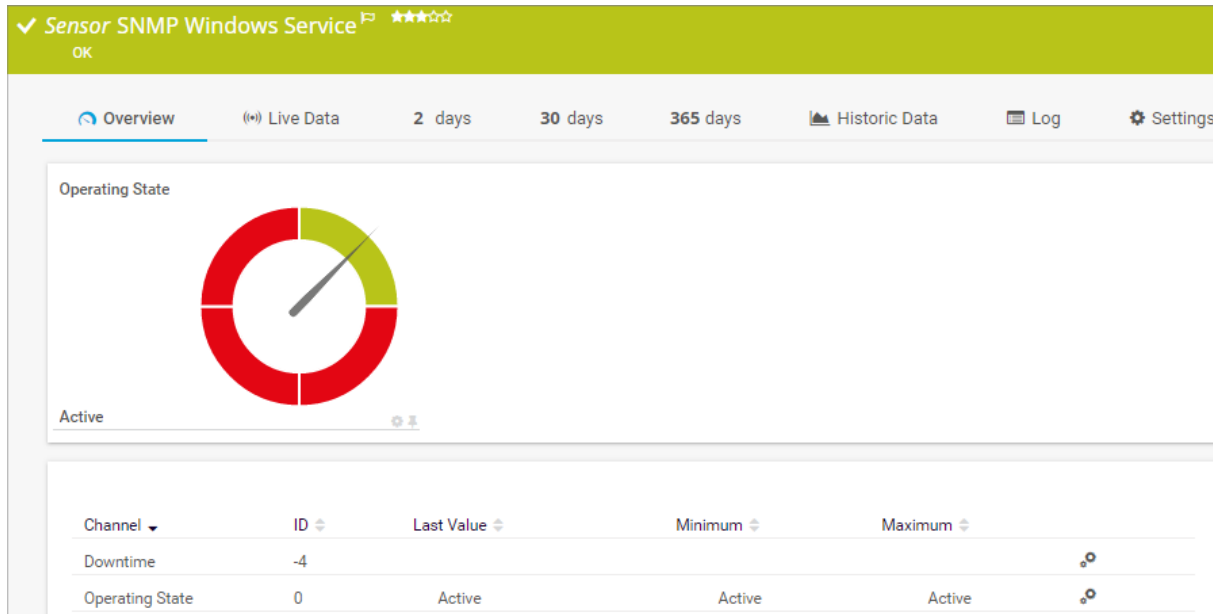
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.211 SNMP Windows Service Sensor

The SNMP Windows Service sensor monitors a Windows service via the Simple Network Management Protocol (SNMP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNMP Windows Service Sensor

Sensor in Other Languages

- Dutch: SNMP Windows Service
- French: Service Windows SNMP
- German: SNMP Windows-Dienst
- Japanese: SNMP Windows サービス
- Portuguese: Serviço Windows SNMP
- Russian: Windows SNMP
- Simplified Chinese: SNMP Windows 服务
- Spanish: Servicio de Windows de SNMP

Remarks

- This sensor cannot distinguish the status "not installed" from "not running".
- It might not work to query data from a probe device via SNMP (querying [localhost](#), [127.0.0.1](#), or [::1](#)). [Add this device to PRTG](#) with the IP address that it has in your network and create the SNMP sensor on this device instead.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

SNMP Windows Service Monitor

Setting	Description
Services	<p>Select the services that you want to monitor. PRTG creates one sensor for each service that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a blue 'x' to remove it and a '+' to add more.
- Priority:** A section with five stars, where the first three are filled, indicating a priority of 3.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ snmpservicesensor ▪ servicesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.


SNMP Windows Service Monitor

SNMP Windows Service Monitor

Service **i** Power


SNMP Windows Service Monitor


Setting	Description
Service	Shows the Windows service that this sensor monitors.

Setting	Description
	<p> PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>




Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type 
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management.</p>

Channel List

- ❗ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Operating State	<p>The operating status of the monitored device</p> <ul style="list-style-type: none"> ▪ Up status: Active ▪ Down status: Continue-Pending, Pause-Pending, Paused <p>❗ This channel is the primary channel by default.</p>

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What SNMP sensors does PRTG offer?

Part 7: Device and Sensor Setup | 8 Sensor Settings
211 SNMP Windows Service Sensor





- <https://kb.paessler.com/en/topic/75522>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

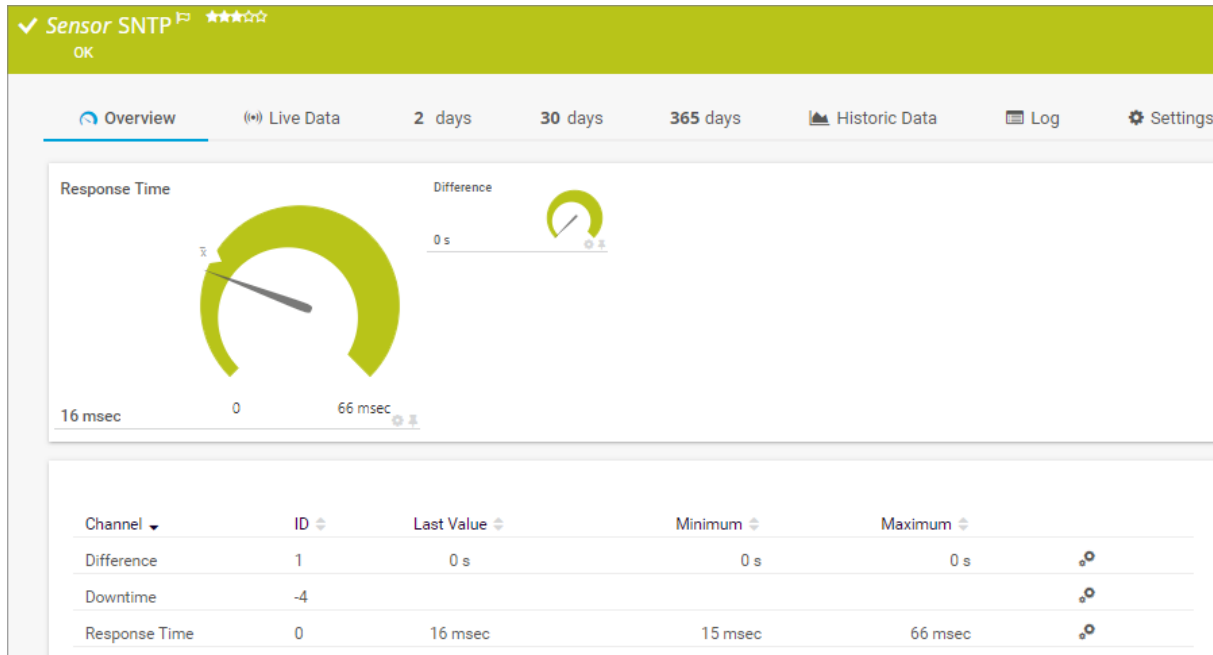
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3977

7.8.212 SNTP Sensor

The SNTP sensor monitors a Simple Network Time Protocol (SNTP) server.

i The sensor tries to get a valid time stamp from the server up to three times per scan until it reports an error.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SNTP Sensor

Sensor in Other Languages

- Dutch: SNTP
- French: SNTP
- German: SNTP
- Japanese: SNTP
- Portuguese: SNTP
- Russian: SNTP
- Simplified Chinese: SNTP
- Spanish: SNTP

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a low performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has a title bar 'Basic Sensor Settings'. Below the title bar, there are three rows of settings:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A tag input field containing 'exampletag' with a close button (X) and a plus button (+).
- Priority**: A star rating selector showing 3 stars out of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ sntpSENSOR
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Specific

Sensor Specific Timeout (Sec.) **i** 60

Sensor Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

Sensor Display


Sensor Display

Primary Channel **i** Downtime


Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ↑ below a channel gauge on the sensor's Overview tab.</p>

Setting	Description
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Difference	The time difference in comparison to the local system time

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Response Time	The response time in milliseconds (msec)  This channel is the primary channel by default.

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

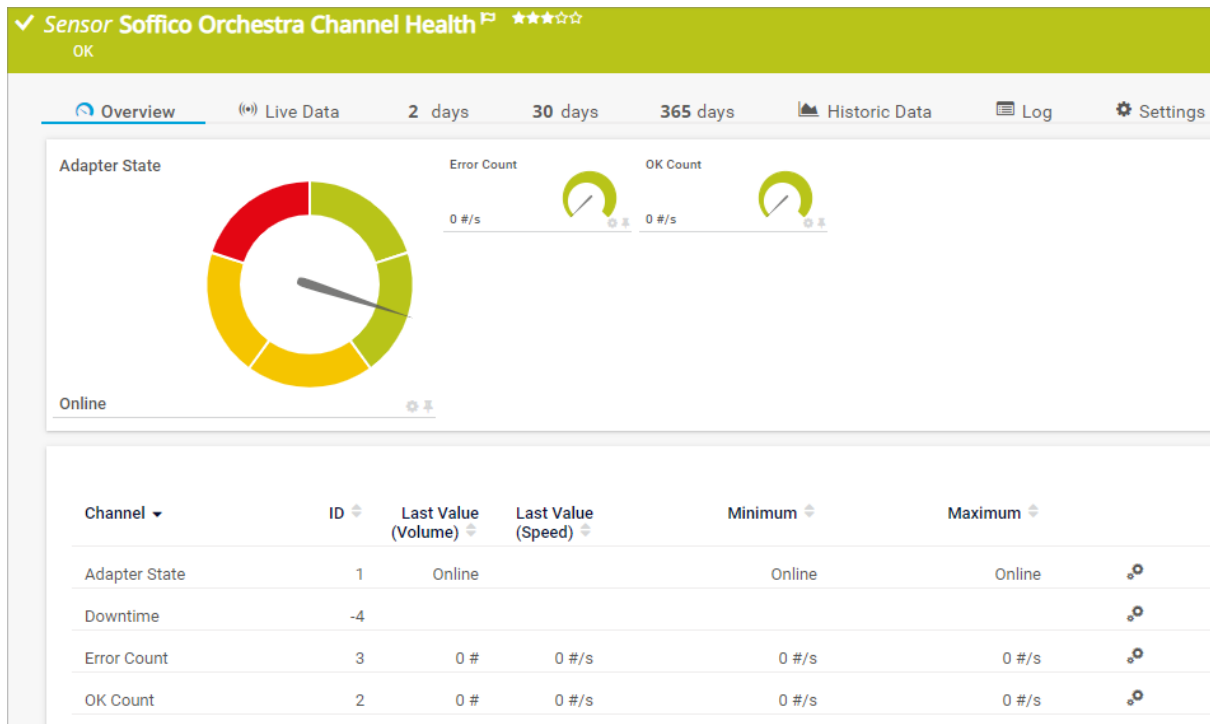
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.213 Soffico Orchestra Channel Health Sensor

The Soffico Orchestra Channel Health sensor monitors the state and the overall number of successful or unsuccessful channel calls.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Soffico Orchestra Channel Health sensor

Sensor in Other Languages

- Dutch: Soffico Orchestra Channel Health
- French: Soffico Orchestra Channel Health
- German: Soffico Orchestra Channel Health
- Japanese: Soffico Orchestra Channel Health
- Portuguese: Soffico Orchestra Channel Health
- Russian: Soffico Orchestra Channel Health
- Simplified Chinese: Soffico Orchestra Channel Health
- Spanish: Soffico Orchestra Channel Health

Remarks

- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- This sensor requires credentials for Soffico Orchestra in the [settings of the parent device](#).

- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Orchestra Channel Specific

Setting	Description
Channel Name	<p>Select the Orchestra channels that you want to monitor. PRTG creates one sensor for each channel that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has a title bar 'Basic Sensor Settings'. Below the title bar, there are three rows of settings:

- Sensor Name**: Labeled 'Example Name'.
- Tags**: A text input field containing 'exampletag' with a blue 'x' to remove it and a '+' to add more.
- Priority**: A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ orchestra ▪ orchestrachannelhealth ▪ soffico
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Orchestra Channel Specific

Orchestra Channel Specific

Channel Name ⓘ *DicomWorklistTest_ORM/CH_ORM_IN*

Type ⓘ *MLLP.Inbound*

Orchestra Channel Specific

Setting	Description
Channel Name	<p>Shows the name of the Orchestra channel that this sensor monitors.</p> <ul style="list-style-type: none"> i The channel name consists of the Orchestra scenario, a slash, and the Orchestra channel name. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Type	<p>Shows the type of the Orchestra channel that this sensor monitors.</p> <ul style="list-style-type: none"> i The sensor supports inbound and outbound channels. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel i Downtime

Graph Type i

Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <ul style="list-style-type: none"> i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Debug Options


Debug Options

Result Handling ⓘ Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>



Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval	
Scanning Interval ⓘ	60 seconds
 inherit from  Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Adapter State	<p>The adapter state</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Offline, Online ▪ Warning status: Not Installed, Unknown ▪ Down status: Online With Error <p>i This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Error Count	<p>The number of errors per second</p>
OK Count	<p>The number of OKs per second</p>

More





■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

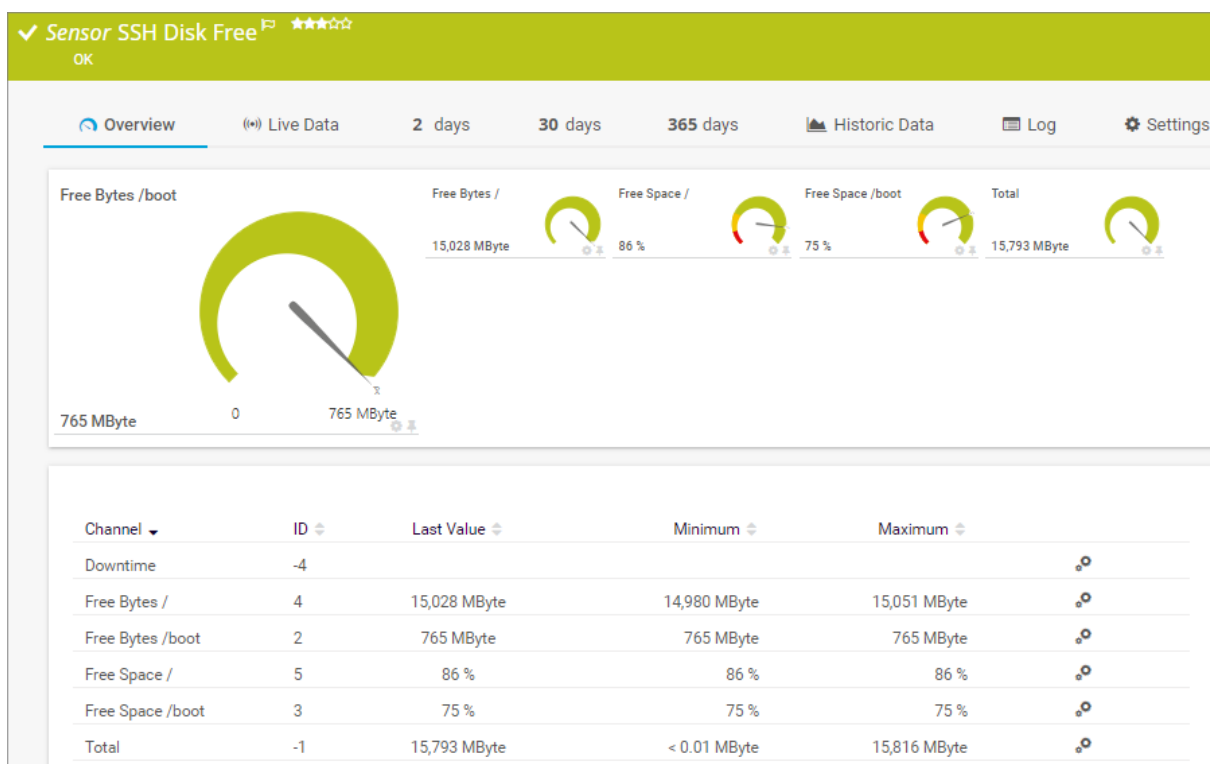
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.214 SSH Disk Free Sensor

The SSH Disk Free sensor monitors the free space on disks of a Linux/Unix system using Secure Shell (SSH).

i The free space that this sensor returns shows the available disk space of the volume, minus a reserve defined for this volume (for example, for redundancy purposes). So, this sensor shows the disk space that is actually available for use. The size of the reserved disk space can be defined with `tune2fs`. For details, see the Knowledge Base: [Why do SSH Disk Free and SNMP Linux Disk Free show different values for my target Linux system?](#)

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SSH Disk Free Sensor

Sensor in Other Languages

- Dutch: SSH Disk vrij
- French: Espace disque disponible SSH
- German: SSH Laufwerkskapazität
- Japanese: SSH ディスク空き容量
- Portuguese: SSH Disco livre
- Russian: SSH
- Simplified Chinese: SSH 磁盘可用空间
- Spanish: SSH disco libre

Remarks

- This sensor requires [credentials for Linux/Solaris/macOS \(SSH/WBEM\) systems](#) in the settings of the parent device.
- This sensor cannot support all Linux/Unix and macOS distributions.
- This sensor has a medium performance impact.
- See the Knowledge Base: [SSH and SFTP sensors in Unknown status](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

SSH Disk Free

Setting	Description
Disk	<p>Select the disks that you want to monitor. PRTG creates two channels for each disk that you select.</p> <ul style="list-style-type: none"> ⓘ You can select up to 100 disks. If you select more disks, you cannot create the sensor. Add the sensor multiple times to monitor more than 100 disks with several sensors. ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ ✕ +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sshdiskfreesensor ▪ diskfreesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SSH Specific

SSH Specific

Connection Timeout (Sec.) ⓘ 60

Shell Timeout (Sec.) ⓘ 10


SSH Port ⓘ Inherit port number from parent device (default)
 Enter custom port number

SSH Engine ⓘ Inherit from parent device (default)
 Default
 Compatibility Mode (deprecated)

Result Handling ⓘ Discard result
 Store result
 Store result in case of error

SSH Specific

Setting	Description
Connection Timeout (Sec.)	<p>Define a timeout in seconds for the connection. This is the time that the sensor waits to establish a connection to the host. Keep this value as low as possible. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p> ⓘ Ensure that the connection timeout is a value that is higher than the shell timeout to avoid potential errors.</p>
Shell Timeout (Sec.)	<p>Define a timeout in seconds for the shell response. This is the time in seconds the sensor waits for the shell to return a response after k has sent its specific command (for example, <code>cat /proc/loadavg</code>). The maximum value is 300 seconds (5 minutes). Enter an integer value.</p> <p> ⓘ Ensure that the shell timeout is a value that is lower than the connection timeout to avoid potential errors.</p>
SSH Port	<p>Define which port this sensor uses for the SSH connection:</p> <ul style="list-style-type: none"> ▪ Inherit port number from parent device (default): Use the port number as defined in the Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems ^[452] section of the parent device settings. ▪ Enter custom port number: Define a custom port number below and do not use the port number from the parent device settings.
Use Port Number	<p>This setting is only visible if you select Enter custom port number above. Enter the port number (between 1 and 65535) that this sensor uses for the SSH connection. Enter an integer value.</p>

Setting	Description
SSH Engine	<p>Select the method that you want to use to access data with this SSH sensor⁴³⁰¹. We strongly recommend that you use the default engine. You can still use the legacy mode for some time to ensure compatibility with your target systems. Choose between:</p> <ul style="list-style-type: none"> ▪ Inherit from parent device (default): Use the SSH engine that you defined in the parent device settings or higher up in the object hierarchy¹³³³. If you have not changed the SSH engine, this is the recommended default engine. ▪ Default: This is the default monitoring method for SSH sensors. It provides the best performance and security. It is set by default in objects that are higher up in the hierarchy, so usually you can keep the Inherit from parent device (default) option. ▪ Compatibility mode (deprecated): Try this legacy method only if the default mode does not work on a target device. The compatibility mode is the SSH engine that PRTG used in previous versions. It is deprecated. We will remove this legacy mode soon, so try to get your SSH sensors running with the default SSH engine. <p>i The option you select here overrides the selection of the SSH engine in a higher object: a parent device, group, probe, or root.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID] (SSHv2).txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ▪ Store result in case of error: Store the last sensor result only if the sensor shows the Down status. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Set Limits Checked for ALL Disks

In this section, you can set limits that are valid for all channels and all drives. By entering limits, you can define when the sensor shows the Warning or the Down [status](#)¹⁹⁷⁷, depending on the data provided by all drives that this sensor monitors. If you want to individually define limits for separate channels, use the limit settings in the [channel settings](#)³⁹⁷⁷.

i All limits that you define here are valid in addition to the limits defined in the particular Channel settings. The limits are valid simultaneously, so the first limit that is breached applies.

Set Limits Checked For ALL Disks

Use the channel settings to set separate error limits or warning limits for each disk.

Percentage Limit Check ⓘ Only use the limits in the settings of the percentage channels
 Use the limits of both the sensor and the channel settings

Upper Error Limit ⓘ

Upper Warning Limit ⓘ

Lower Warning Limit ⓘ 25






Lower Error Limit ⓘ 10

Size Limit Check ⓘ Only use the limits in the settings of the byte size channels
 Use the limits of both the sensor and the channel settings

Alarm on Missing/Removed Disk ⓘ Deactivate alarm (default)
 Activate alarm

Set Limits Checked For ALL Disks

Setting	Description
Percentage Limit Check	<p>Enable or disable a limit check for the free space in percentage channels of all drives. By default, the sensor enables percentage limits with a lower warning limit and a lower error limit. Choose between:</p> <ul style="list-style-type: none"> ▪ Only use the limits in the settings of the percentage channels: Do not define sensor limits that are valid for all percentage channels. The sensor only uses the limits that you define in the settings of the particular "free space in percent" channels to determine the status. ▪ Use the limits of both the sensor and the channel settings: Define sensor limits that are valid for all percentage channels. Additional fields appear below. The sensor shows the Warning or the Down status when free space limits are above or below the limits.
Upper Error Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify an upper limit in percent for the Down status. If the free disk space of one of your drives exceeds this value, the sensor changes to the Down status. Enter an integer value or leave the field empty.</p> <p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p>
Upper Warning Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify an upper limit in percent for the Warning status. If the free disk space of one of your drives exceeds this value, the sensor changes to the Warning status. Enter an integer value or leave the field empty.</p>

Setting	Description
Lower Warning Limit	<p> The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p> <p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify a lower limit in percent for the Warning status. If the free disk space of one of your drives falls below this value, the sensor changes to the Warning status. Enter an integer value or leave the field empty.</p>
Lower Error Limit	<p> The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p> <p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify a lower limit in percent for the Down status. If the free disk space of one of your drives falls below this value, the sensor changes to the Down status. Enter an integer value or leave the field empty.</p>
Size Limit Check	<p> The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p> <p>Enable or disable a limit check for the free bytes channels of all drives:</p> <ul style="list-style-type: none"> ▪ Only use the limits in the settings of the byte size channels: Do not define sensor limits that are valid for all byte size channels. The sensor only uses limits that you define in the settings of the particular free space in bytes channels to determine the status. ▪ Use the limits of both the sensor and the channel settings: Define limits for the sensor that are valid for all byte size channels. Additional fields appear below. The sensor shows the Warning or Down status when free space limits are above or below the value. <p> By default, byte size limits are not enabled for drives.</p>
Upper Error Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify an upper limit. Use the same unit as shown by the free bytes channels of this sensor (by default this is MB). If the free disk space of one of your drives exceeds this value, the sensor changes to the Down status. Enter an integer value or leave the field empty.</p> <p> The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p>

Setting	Description
Upper Warning Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify an upper limit. Use the same unit as shown by the free bytes channels of this sensor (by default this is MB). If the free disk space of one of your drives exceeds this value, the sensor changes to the Warning status. Enter an integer value or leave the field empty.</p> <p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p>
Lower Warning Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify a lower limit. Use the same unit as shown by the free bytes channels of this sensor (by default this is MB). If the free disk space of one of your drives falls below this value, the sensor changes to the Warning status. Enter an integer value or leave the field empty.</p> <p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p>
Lower Error Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify a lower limit. Use the same unit as shown by the free bytes channels of this sensor (by default this is MB). If the free disk space of one of your drives falls below this value, the sensor changes to the Down status. Enter an integer value or leave the field empty.</p> <p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p>
Alarm on Missing/Removed Disk	<p>If a monitored disk is removed or not found, the sensor sets the values to zero. Select the alarm approach in this case:</p> <ul style="list-style-type: none"> ▪ Deactivate alarm (default): Do not send an alert for a removed disk. ▪ Activate alarm: Send an alert if a monitored disk is removed or not found.

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#)¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Bytes [Mounted Partition]	The free space in bytes
Free Space [Mounted Partition]	The free space in percent
Total	The total space in bytes

More

KNOWLEDGE BASE

Why do SSH Disk Free and SNMP Linux Disk Free show different values for my target Linux system?

- <https://kb.paessler.com/en/topic/43183>

SSH and SFTP sensors in Unknown status

- <https://kb.paessler.com/en/topic/79174>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How do I set up SSH sensors with my AWS Linux instances?





- <https://kb.paessler.com/en/topic/79569>

How and where does PRTG store its data?

- <https://kb.paessler.com/en/topic/463>

Sensor Settings Overview

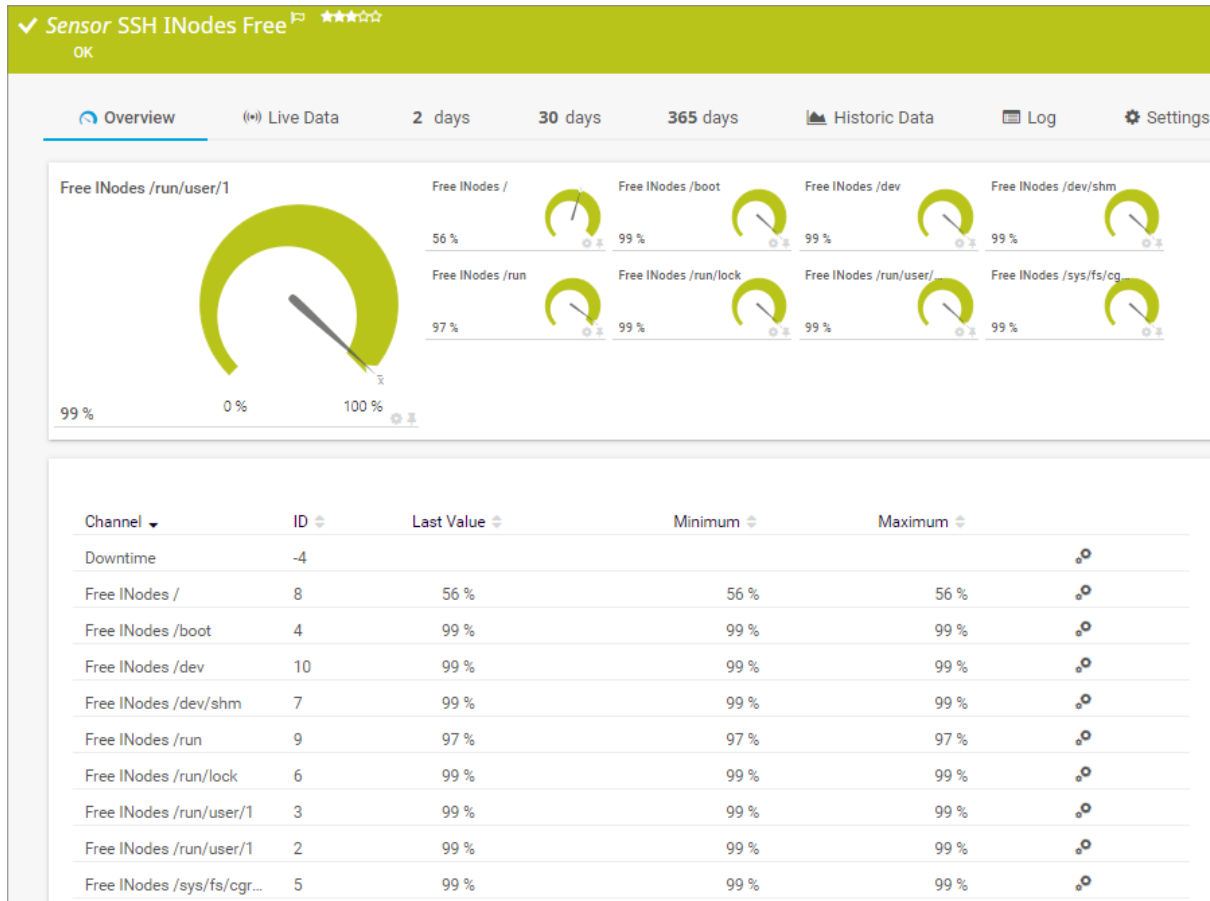
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.215 SSH INodes Free Sensor

The SSH INodes Free sensor monitors the free index nodes on disks of Linux/Unix and macOS systems via Secure Shell (SSH).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SSH INodes Free Sensor

Sensor in Other Languages

- Dutch: SSH INodes Vrij
- French: INodes SSH disponibles
- German: SSH Freie INodes
- Japanese: SSH inode の空き領域
- Portuguese: SSH INodes livre
- Russian: INodes SSH
- Simplified Chinese: SSH INode 可用空间
- Spanish: SSH INodes libres

Remarks

- This sensor requires [credentials for Linux/Solaris/macOS \(SSH/WBEM\) systems](#) in the settings of the parent device.
- This sensor cannot support all Linux/Unix and macOS distributions.
- This sensor does not support ESX(i) hosts.
- This sensor has a medium performance impact.
- See the Knowledge Base: [SSH and SFTP sensors in Unknown status](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A list of tags with "exampletag" selected. There are "X" and "+" icons next to the tag.
- Priority:** A star rating system showing five stars, with the first four filled and the fifth empty.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sshinodesfreesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SSH Specific

SSH Specific

Connection Timeout (Sec.) ⓘ 60

Shell Timeout (Sec.) ⓘ 10

SSH Port ⓘ Inherit port number from parent device (default)
 Enter custom port number

SSH Engine ⓘ Inherit from parent device (default)
 Default
 Compatibility Mode (deprecated)

Result Handling ⓘ Discard result
 Store result
 Store result in case of error

SSH Specific

Setting	Description
Connection Timeout (Sec.)	<p>Define a timeout in seconds for the connection. This is the time that the sensor waits to establish a connection to the host. Keep this value as low as possible. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i Ensure that the connection timeout is a value that is higher than the shell timeout to avoid potential errors.</p>
Shell Timeout (Sec.)	<p>Define a timeout in seconds for the shell response. This is the time in seconds the sensor waits for the shell to return a response after k has sent its specific command (for example, <code>cat /proc/loadavg</code>). The maximum value is 300 seconds (5 minutes). Enter an integer value.</p> <p>i Ensure that the shell timeout is a value that is lower than the connection timeout to avoid potential errors.</p>
SSH Port	<p>Define which port this sensor uses for the SSH connection:</p> <ul style="list-style-type: none"> ▪ Inherit port number from parent device (default): Use the port number as defined in the Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems^[452] section of the parent device settings. ▪ Enter custom port number: Define a custom port number below and do not use the port number from the parent device settings.
Use Port Number	<p>This setting is only visible if you select Enter custom port number above. Enter the port number (between 1 and 65535) that this sensor uses for the SSH connection. Enter an integer value.</p>
SSH Engine	<p>Select the method that you want to use to access data with this SSH sensor^[430]. We strongly recommend that you use the default engine. You can still use the legacy mode for some time to ensure compatibility with your target systems. Choose between:</p> <ul style="list-style-type: none"> ▪ Inherit from parent device (default): Use the SSH engine that you defined in the parent device settings or higher up in the object hierarchy^[138]. If you have not changed the SSH engine, this is the recommended default engine. ▪ Default: This is the default monitoring method for SSH sensors. It provides the best performance and security. It is set by default in objects that are higher up in the hierarchy, so usually you can keep the Inherit from parent device (default) option. ▪ Compatibility mode (deprecated): Try this legacy method only if the default mode does not work on a target device. The compatibility mode is the SSH engine that PRTG used in previous versions. It is deprecated. We will remove this legacy mode soon, so try to get your SSH sensors running with the default SSH engine. <p>i The option you select here overrides the selection of the SSH engine in a higher object: a parent device, group, probe, or root.</p>

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID] (SSHv2).txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ▪ Store result in case of error: Store the last sensor result only if the sensor shows the Down status. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking ⚙ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free INodes [Mount]	The free index nodes in percent for the mount

Channel	Description
	<p> UNIX file systems only allow a limited number of index nodes. If the limit is exceeded, no more data can be stored, although free space might still be available. This sensor informs you before one of your drives runs out of INodes.</p>

More

KNOWLEDGE BASE

SSH and SFTP sensors in Unknown status

- <https://kb.paessler.com/en/topic/79174>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How do I set up SSH sensors with my AWS Linux instances?





- <https://kb.paessler.com/en/topic/79569>

How and where does PRTG store its data?

- <https://kb.paessler.com/en/topic/463>

Sensor Settings Overview

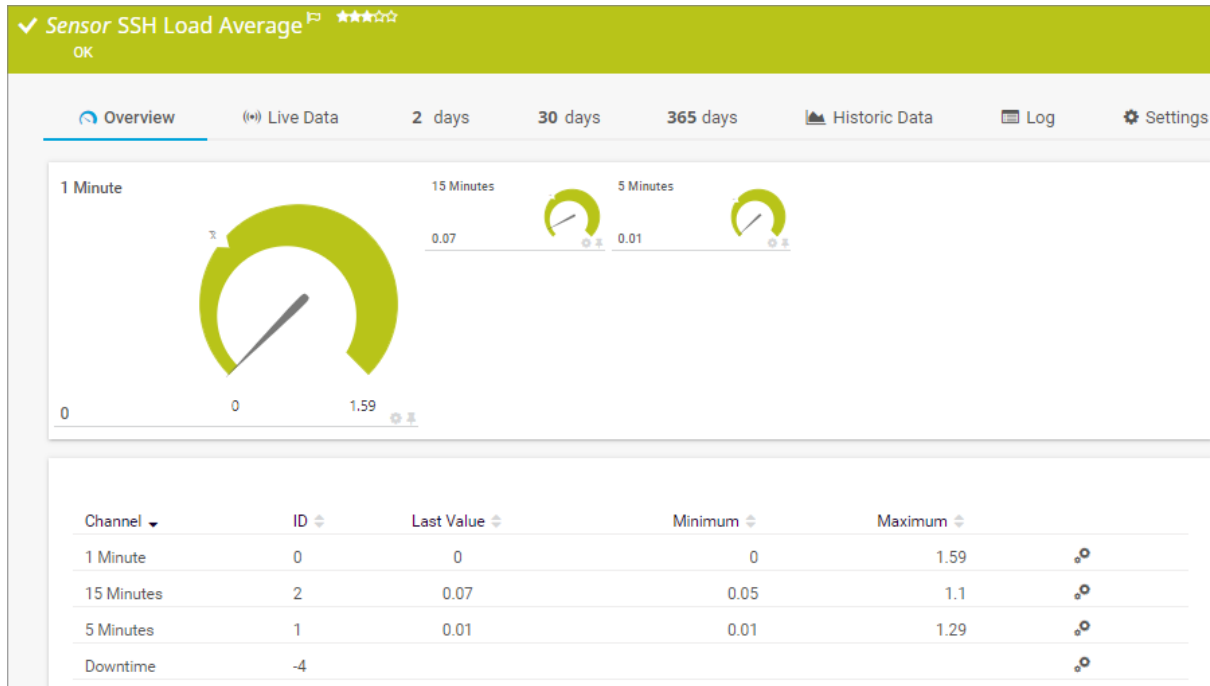
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.216 SSH Load Average Sensor

The SSH Load Average sensor monitors the load average of a Linux/Unix system using Secure Shell (SSH).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SSH Load Average Sensor

Sensor in Other Languages

- Dutch: SSH Gemiddelde belasting
- French: Moyenne de la charge SSH
- German: SSH Durchschnittl. Last
- Japanese: SSH 負荷平均
- Portuguese: SSH Carga média
- Russian: SSH
- Simplified Chinese: SSH 负载平均值
- Spanish: SSH carga promedio

Remarks

- This sensor requires [credentials for Linux/Solaris/macOS \(SSH/WBEM\) systems](#) in the settings of the parent device.
- This sensor cannot support all Linux/Unix and macOS distributions.
- This sensor has a medium performance impact.
- See the Knowledge Base: [SSH and SFTP sensors in Unknown status](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> sshloadavgsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SSH Specific

SSH Specific

Connection Timeout (Sec.) ⁱ 60

Shell Timeout (Sec.) ⁱ 10

SSH Port ⁱ Inherit port number from parent device (default)
 Enter custom port number



SSH Engine ⁱ Inherit from parent device (default)
 Default
 Compatibility Mode (deprecated)

Result Handling ⁱ Discard result
 Store result
 Store result in case of error

SSH Specific


Setting	Description
Connection Timeout (Sec.)	<p>Define a timeout in seconds for the connection. This is the time that the sensor waits to establish a connection to the host. Keep this value as low as possible. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i Ensure that the connection timeout is a value that is higher than the shell timeout to avoid potential errors.</p>
Shell Timeout (Sec.)	<p>Define a timeout in seconds for the shell response. This is the time in seconds the sensor waits for the shell to return a response after k has sent its specific command (for example, <code>cat /proc/loadavg</code>). The maximum value is 300 seconds (5 minutes). Enter an integer value.</p>


Setting	Description
SSH Port	<p>i Ensure that the shell timeout is a value that is lower than the connection timeout to avoid potential errors.</p> <p>Define which port this sensor uses for the SSH connection:</p> <ul style="list-style-type: none"> <li>▪ Inherit port number from parent device (default): Use the port number as defined in the Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems section of the parent device settings. <li>▪ Enter custom port number: Define a custom port number below and do not use the port number from the parent device settings.
Use Port Number	<p>This setting is only visible if you select Enter custom port number above. Enter the port number (between 1 and 65535) that this sensor uses for the SSH connection. Enter an integer value.</p>
SSH Engine	<p>Select the method that you want to use to access data with this SSH sensor. We strongly recommend that you use the default engine. You can still use the legacy mode for some time to ensure compatibility with your target systems. Choose between:</p> <ul style="list-style-type: none"> <li>▪ Inherit from parent device (default): Use the SSH engine that you defined in the parent device settings or higher up in the object hierarchy. If you have not changed the SSH engine, this is the recommended default engine. <li>▪ Default: This is the default monitoring method for SSH sensors. It provides the best performance and security. It is set by default in objects that are higher up in the hierarchy, so usually you can keep the Inherit from parent device (default) option. <li>▪ Compatibility mode (deprecated): Try this legacy method only if the default mode does not work on a target device. The compatibility mode is the SSH engine that PRTG used in previous versions. It is deprecated. We will remove this legacy mode soon, so try to get your SSH sensors running with the default SSH engine. <p>i The option you select here overrides the selection of the SSH engine in a higher object: a parent device, group, probe, or root.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> <li>▪ Discard result: Do not store the sensor result. <li>▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID] (SSHv2).txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <li>▪ Store result in case of error: Store the last sensor result only if the sensor shows the Down status.

Setting	Description
	<p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display




Sensor Display

Primary Channel  Downtime


Graph Type  Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[3977]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule **i** ▼
None


Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays


Setting	Description
	<ul style="list-style-type: none"> ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency.


Setting	Description
	<ul style="list-style-type: none"> Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies [4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector [251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
1 Minute	<p>The average system load within a 1-minute interval</p> <p>i This channel is the primary channel by default.</p>
5 Minutes	The average system load within a 5-minute scanning interval
15 Minutes	The average system load within a 15-minute interval
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

More

KNOWLEDGE BASE

SSH and SFTP sensors in Unknown status

- <https://kb.paessler.com/en/topic/79174>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How do I set up SSH sensors with my AWS Linux instances?





- <https://kb.paessler.com/en/topic/79569>

How and where does PRTG store its data?

- <https://kb.paessler.com/en/topic/463>

Sensor Settings Overview

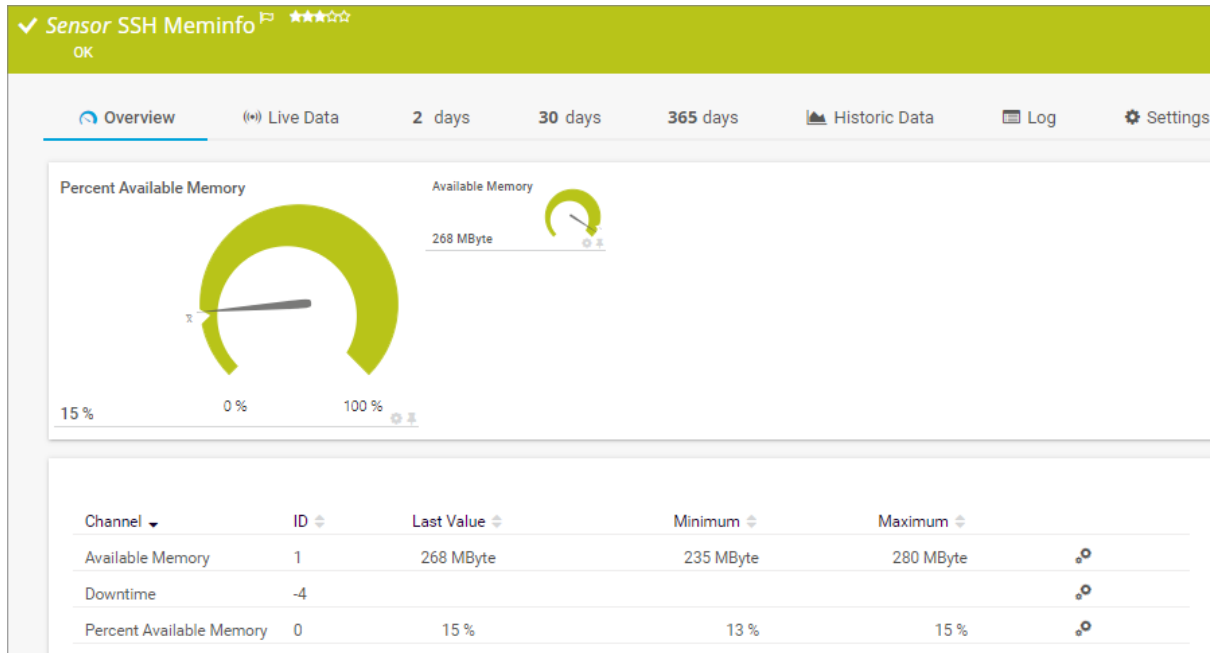
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3977

7.8.217 SSH Meminfo Sensor

The SSH Meminfo sensor monitors the memory usage of a Linux/Unix system using Secure Shell (SSH).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SSH Meminfo Sensor

Sensor in Other Languages

- Dutch: SSH Meminfo
- French: Info sur la mémoire SSH
- German: SSH Speicherinfo
- Japanese: SSH メモリ情報
- Portuguese: SSH Meminfo
- Russian: Meminfo SSH
- Simplified Chinese: SSH 内存信息
- Spanish: SSH información de memoria

Remarks

- This sensor requires [credentials for Linux/Solaris/macOS \(SSH/WBEM\) systems](#) in the settings of the parent device.
- This sensor cannot support all Linux/Unix distributions.
- This sensor does not support any macOS distributions.
- This sensor has a medium performance impact.

- See the Knowledge Base: [SSH and SFTP sensors in Unknown status](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a 'Basic Sensor Settings' dialog box. It has three main sections: 'Sensor Name' with the value 'Example Name', 'Tags' with a list containing 'exampletag', and 'Priority' set to 5 stars. Each section has an information icon (i) to its left.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sshmeminfosensor ▪ memorysensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SSH Specific

SSH Specific

Connection Timeout (Sec.) ⓘ 60

Shell Timeout (Sec.) ⓘ 10

SSH Port ⓘ Inherit port number from parent device (default)
 Enter custom port number

SSH Engine ⓘ Inherit from parent device (default)
 Default
 Compatibility Mode (deprecated)

Result Handling ⓘ Discard result
 Store result
 Store result in case of error

SSH Specific

Setting	Description
Connection Timeout (Sec.)	<p>Define a timeout in seconds for the connection. This is the time that the sensor waits to establish a connection to the host. Keep this value as low as possible. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i Ensure that the connection timeout is a value that is higher than the shell timeout to avoid potential errors.</p>

Setting	Description
Shell Timeout (Sec.)	<p>Define a timeout in seconds for the shell response. This is the time in seconds the sensor waits for the shell to return a response after k has sent its specific command (for example, cat /proc/loadavg). The maximum value is 300 seconds (5 minutes). Enter an integer value.</p> <p>i Ensure that the shell timeout is a value that is lower than the connection timeout to avoid potential errors.</p>
SSH Port	<p>Define which port this sensor uses for the SSH connection:</p> <ul style="list-style-type: none"> ▪ Inherit port number from parent device (default): Use the port number as defined in the Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems ^[452] section of the parent device settings. ▪ Enter custom port number: Define a custom port number below and do not use the port number from the parent device settings.
Use Port Number	<p>This setting is only visible if you select Enter custom port number above. Enter the port number (between 1 and 65535) that this sensor uses for the SSH connection. Enter an integer value.</p>
SSH Engine	<p>Select the method that you want to use to access data with this SSH sensor ^[430]. We strongly recommend that you use the default engine. You can still use the legacy mode for some time to ensure compatibility with your target systems. Choose between:</p> <ul style="list-style-type: none"> ▪ Inherit from parent device (default): Use the SSH engine that you defined in the parent device settings or higher up in the object hierarchy ^[133]. If you have not changed the SSH engine, this is the recommended default engine. ▪ Default: This is the default monitoring method for SSH sensors. It provides the best performance and security. It is set by default in objects that are higher up in the hierarchy, so usually you can keep the Inherit from parent device (default) option. ▪ Compatibility mode (deprecated): Try this legacy method only if the default mode does not work on a target device. The compatibility mode is the SSH engine that PRTG used in previous versions. It is deprecated. We will remove this legacy mode soon, so try to get your SSH sensors running with the default SSH engine. <p>i The option you select here overrides the selection of the SSH engine in a higher object: a parent device, group, probe, or root.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ^[452] on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID] (SSHv2).txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval.

Setting	Description
	<ul style="list-style-type: none"> ▪ Store result in case of error: Store the last sensor result only if the sensor shows the Down status.
	<p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p>
	<p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking ⚙ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Available Memory	The available memory in bytes
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
Percent Available Memory	The available memory in percent  This channel is the primary channel by default.

More

KNOWLEDGE BASE

SSH and SFTP sensors in Unknown status

- <https://kb.paessler.com/en/topic/79174>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How do I set up SSH sensors with my AWS Linux instances?





- <https://kb.paessler.com/en/topic/79569>

How and where does PRTG store its data?

- <https://kb.paessler.com/en/topic/463>

Sensor Settings Overview

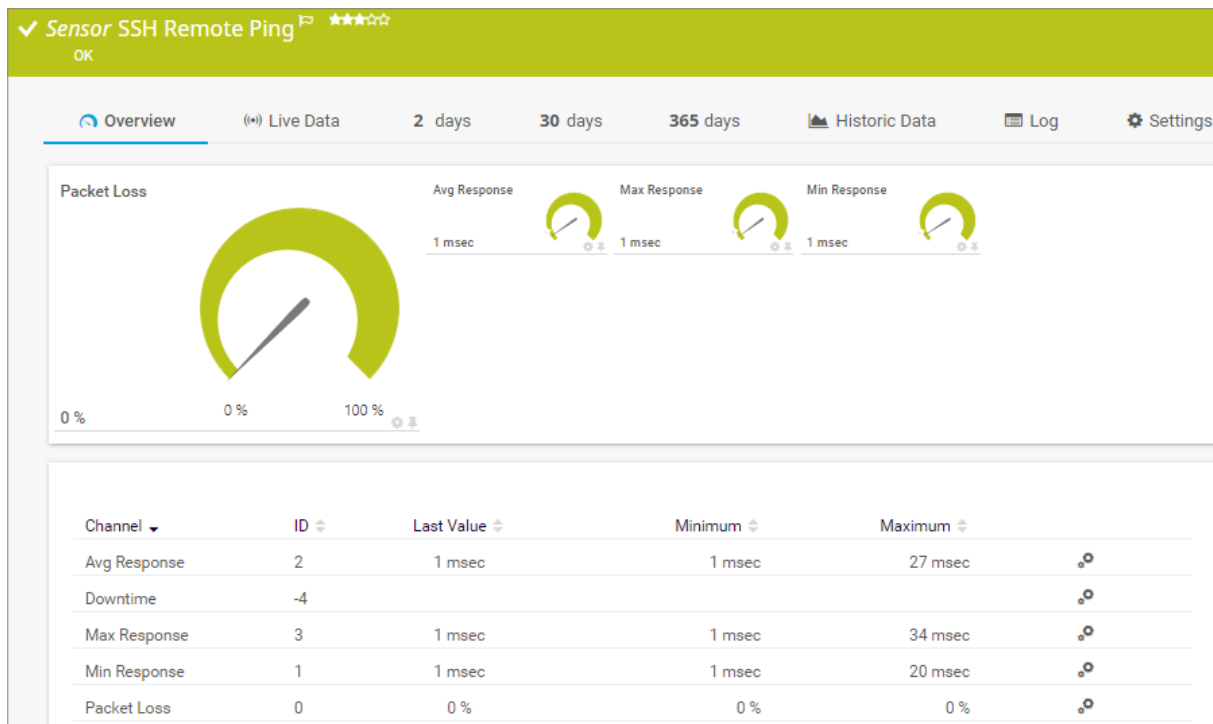
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3957

7.8.218 SSH Remote Ping Sensor

The SSH Remote Ping sensor remotely monitors the connectivity between a system running Linux/macOS X and another device, using Internet Control Message Protocol (ICMP) echo requests (Ping) and Secure Shell (SSH).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SSH Remote Ping Sensor

Sensor in Other Languages

- Dutch: SSH Remote Ping
- French: Ping distant SSH
- German: SSH Remote Ping
- Japanese: SSH リモート Ping 実行
- Portuguese: SSH Ping remoto
- Russian: SSH
- Simplified Chinese: SSH 远程 Ping
- Spanish: Ping remoto SSH

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires [credentials for Linux/Solaris/macOS \(SSH/WBEM\) systems](#) in the settings of the parent device.

- This sensor cannot support all Linux/Unix and macOS distributions.
- See the Knowledge Base: [SSH and SFTP sensors in Unknown status](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A text input field containing "exampletag" with a close button (X) and a plus button (+) to the right.
- Priority:** A section with five star icons, all of which are filled, indicating a priority of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sshremotepingsensor ▪ pingsensor ▪ remotepingsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SSH Remote Ping Configuration

SSH Remote Ping Configuration

Target i	192.0.2.0
Packet Size (Bytes) i	32
Packet Count i	2
Custom Parameters i	

SSH Remote Ping Configuration

Setting	Description
Target	<p>Enter the Domain Name System (DNS) name or IP address of the target device the Ping is sent to. The sensor remotely connects to the parent device it is created on via SSH, then performs a ping request from this remote device to the target device or server. Enter a string.</p>
Packet Size (Bytes)	<p>Enter the packet size for the Ping in bytes. You can enter any value between 1 and 10000. Enter an integer value.</p> <p>i We recommend that you use the default value.</p>
Packet Count	<p>Enter the number of packets that the sensor sends with each scanning interval.</p>

Setting	Description
Custom Parameter	<p>Optionally, enter additional parameters that the sensor adds at the end of the Ping command. Enter a string or leave the field empty.</p> <p>i Do not use parameters that change the output format of the result to ensure that it can still be parsed. You cannot enter an additional command.</p>

SSH Specific

SSH Specific

Connection Timeout (Sec.) **i** 60

Shell Timeout (Sec.) **i** 10

SSH Port **i** Inherit port number from parent device (default)
 Enter custom port number

SSH Engine **i** Inherit from parent device (default)
 Default
 Compatibility Mode (deprecated)

Result Handling **i** Discard result
 Store result
 Store result in case of error

SSH Specific

Setting	Description
Connection Timeout (Sec.)	<p>Define a timeout in seconds for the connection. This is the time that the sensor waits to establish a connection to the host. Keep this value as low as possible. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i Ensure that the connection timeout is a value that is higher than the shell timeout to avoid potential errors.</p>
Shell Timeout (Sec.)	<p>Define a timeout in seconds for the shell response. This is the time in seconds the sensor waits for the shell to return a response after k has sent its specific command (for example, <code>cat /proc/loadavg</code>). The maximum value is 300 seconds (5 minutes). Enter an integer value.</p> <p>i Ensure that the shell timeout is a value that is lower than the connection timeout to avoid potential errors.</p>
SSH Port	Define which port this sensor uses for the SSH connection:

Setting	Description
Use Port Number	<ul style="list-style-type: none"> ▪ Inherit port number from parent device (default): Use the port number as defined in the Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems section of the parent device settings. ▪ Enter custom port number: Define a custom port number below and do not use the port number from the parent device settings. <p>This setting is only visible if you select Enter custom port number above. Enter the port number (between 1 and 65535) that this sensor uses for the SSH connection. Enter an integer value.</p>
SSH Engine	<p>Select the method that you want to use to access data with this SSH sensor. We strongly recommend that you use the default engine. You can still use the legacy mode for some time to ensure compatibility with your target systems. Choose between:</p> <ul style="list-style-type: none"> ▪ Inherit from parent device (default): Use the SSH engine that you defined in the parent device settings or higher up in the object hierarchy. If you have not changed the SSH engine, this is the recommended default engine. ▪ Default: This is the default monitoring method for SSH sensors. It provides the best performance and security. It is set by default in objects that are higher up in the hierarchy, so usually you can keep the Inherit from parent device (default) option. ▪ Compatibility mode (deprecated): Try this legacy method only if the default mode does not work on a target device. The compatibility mode is the SSH engine that PRTG used in previous versions. It is deprecated. We will remove this legacy mode soon, so try to get your SSH sensors running with the default SSH engine. <p>i The option you select here overrides the selection of the SSH engine in a higher object: a parent device, group, probe, or root.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID] (SSHv2).txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ▪ Store result in case of error: Store the last sensor result only if the sensor shows the Down status. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Avg Response	The average response time measured from the remote device in milliseconds (msec)
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Max Response	The maximum response time measured from the remote device in msec
Min Response	The minimum response time measured from the remote device in msec
Packet Loss	The packet loss in percent
	 This channel is the primary channel by default.

More

 KNOWLEDGE BASE

SSH and SFTP sensors in Unknown status

- <https://kb.paessler.com/en/topic/79174>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How do I set up SSH sensors with my AWS Linux instances?





- <https://kb.paessler.com/en/topic/79569>

How and where does PRTG store its data?

- <https://kb.paessler.com/en/topic/463>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

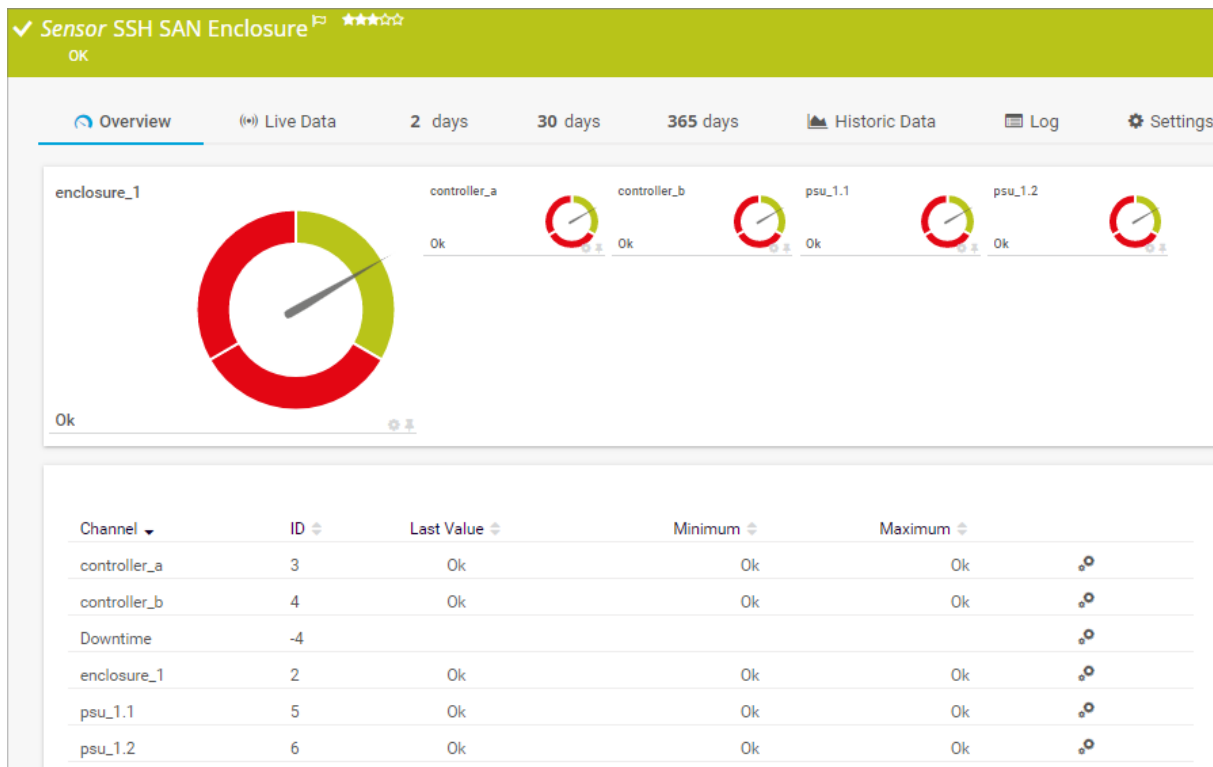
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.219 SSH SAN Enclosure Sensor

The SSH SAN Enclosure sensor monitors a storage area network (SAN) enclosure via Secure Shell (SSH).

i The SAN must provide a command-line interface (CLI) for this purpose.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SSH SAN Enclosure Sensor

Sensor in Other Languages

- Dutch: SSH SAN behuizing
- French: Boîtier SAN SSH
- German: SSH SAN Enclosure
- Japanese: SSH SAN エンクロージャ
- Portuguese: SSH Gabinete de SAN
- Russian: SAN SSH
- Simplified Chinese: SSH SAN 机箱
- Spanish: Carcasa de SAN de SSH

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.

- This sensor requires [credentials for Linux/Solaris/macOS \(SSH/WBEM\) systems](#)^[452] in the settings of the parent device.
- This sensor does not support every SAN, even if it provides a CLI. The sensor only works with specific devices, for example, the HP P2000.
- It might happen that the controller of your target device breaks down. Experience shows that this issue strongly depends on the hardware model you monitor. Increase the scanning interval to discharge the controller and try again.
- After a firmware update of the target device, this sensor might show incorrect channel values. Add this sensor anew in this case.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)^[448].
- Sometimes the devices you monitor with this SSH SAN sensor return status values that are not officially documented so that the shown sensor status in PRTG differs from the "real" device status. For more information on this issue, see the Knowledge Base: [Why does my SSH SAN sensor show a wrong status?](#)

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

SSH SAN Enclosure Settings

Setting	Description
Enclosure	<p>Select the enclosures that you want to monitor. PRTG creates one sensor for each enclosure that you select.</p> <ul style="list-style-type: none"> ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ +

Priority ⓘ ★ ★ ★ ☆ ☆

Example Name

exampletag ✕ +

★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sshsanenclosure ▪ sshsan ▪ enclosure
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

SSH SAN Enclosure Settings

SSH SAN Enclosure Settings

Enclosure ⓘ 0

Durable ID ⓘ

Name ⓘ

WWN ⓘ

SSH SAN Enclosure Settings

Setting	Description
Enclosure	Shows the identifier of the enclosure that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Durable ID	Shows the durable identifier of the enclosure that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Name	Shows the name of the enclosure that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
WWN	Shows the World Wide Name (WWN) of the enclosure that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

SSH Specific

SSH Specific

Connection Timeout (Sec.) ⓘ 60

Shell Timeout (Sec.) ⓘ 10




SSH Port ⓘ Inherit port number from parent device (default)
 Enter custom port number

SSH Engine ⓘ Inherit from parent device (default)
 Default
 Compatibility Mode (deprecated)

Result Handling ⓘ Discard result
 Store result
 Store result in case of error

SSH Specific

Setting	Description
Connection Timeout (Sec.)	<p>Define a timeout in seconds for the connection. This is the time that the sensor waits to establish a connection to the host. Keep this value as low as possible. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p> ⓘ This sensor has a fixed timeout of 300 seconds. If you change the value, it does not have an effect on the timeout.</p> <p> ⓘ Ensure that the connection timeout is a value that is higher than the shell timeout to avoid potential errors.</p>
Shell Timeout (Sec.)	<p>Define a timeout in seconds for the shell response. This is the time in seconds the sensor waits for the shell to return a response after k has sent its specific command (for example, <code>cat /proc/loadavg</code>). The maximum value is 300 seconds (5 minutes). Enter an integer value.</p> <p> ⓘ This sensor has a fixed timeout of 300 seconds. If you change the value, it does not have an effect on the timeout.</p> <p> ⓘ Ensure that the shell timeout is a value that is lower than the connection timeout to avoid potential errors.</p>
SSH Port	<p>Define which port this sensor uses for the SSH connection:</p> <ul style="list-style-type: none"> ▪ Inherit port number from parent device (default): Use the port number as defined in the Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems^[452] section of the parent device settings. ▪ Enter custom port number: Define a custom port number below and do not use the port number from the parent device settings.

Setting	Description
Use Port Number	This setting is only visible if you select Enter custom port number above. Enter the port number (between 1 and 65535) that this sensor uses for the SSH connection. Enter an integer value.
SSH Engine	<p>Select the method that you want to use to access data with this SSH sensor⁴³⁰¹. We strongly recommend that you use the default engine. You can still use the legacy mode for some time to ensure compatibility with your target systems. Choose between:</p> <ul style="list-style-type: none"> ▪ Inherit from parent device (default): Use the SSH engine that you defined in the parent device settings or higher up in the object hierarchy¹³⁸¹. If you have not changed the SSH engine, this is the recommended default engine. ▪ Default: This is the default monitoring method for SSH sensors. It provides the best performance and security. It is set by default in objects that are higher up in the hierarchy, so usually you can keep the Inherit from parent device (default) option. ▪ Compatibility mode (deprecated): Try this legacy method only if the default mode does not work on a target device. The compatibility mode is the SSH engine that PRTG used in previous versions. It is deprecated. We will remove this legacy mode soon, so try to get your SSH sensors running with the default SSH engine. <p> The option you select here overrides the selection of the SSH engine in a higher object: a parent device, group, probe, or root.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID] (SSHv2).txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ▪ Store result in case of error: Store the last sensor result only if the sensor shows the Down status. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click ⓘ to interrupt the [inheritance](#).

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

-  Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Controller[#]	<p>The status of the controller</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: Ok ▪ Down status: Fault, Not Available
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Enclosure[#]	<p>The overall status of the enclosure</p> <ul style="list-style-type: none"> ▪ Up status: Ok ▪ Down status: Fault, Not Available <p> This channel is the primary channel by default.</p>
PSU[#]	<p>The status of the power supplies</p> <ul style="list-style-type: none"> ▪ Up status: Ok

Channel	Description
	<ul style="list-style-type: none">▪ Down status: Fault, Not Available

More

KNOWLEDGE BASE

Why does my SSH SAN sensor show a wrong status?





- <https://kb.paessler.com/en/topic/60145>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

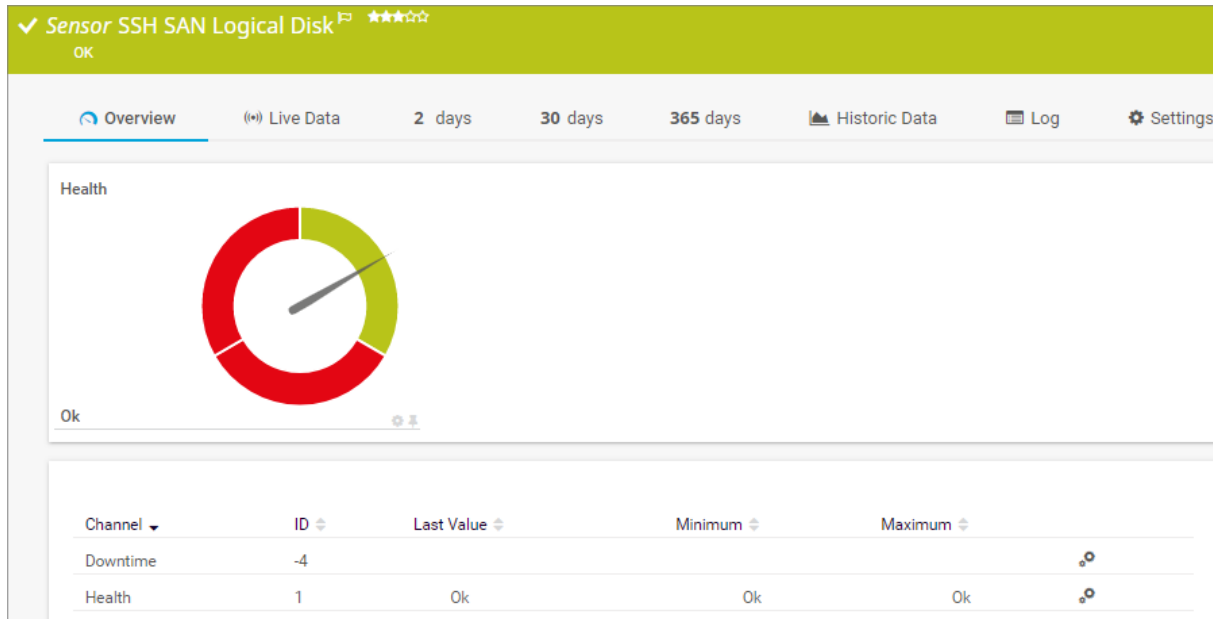
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.220 SSH SAN Logical Disk Sensor

The SSH SAN Logical Disk sensor monitors a logical disk on a storage area network (SAN) via Secure Shell (SSH).

i The SAN must provide a command-line interface (CLI) for this purpose.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SSH SAN Logical Disk Sensor

Sensor in Other Languages

- Dutch: SSH SAN Logische Schijf
- French: Disque logique SSH SAN
- German: SSH SAN Logisches Laufwerk
- Japanese: SSH SAN 論理ディスク
- Portuguese: SSH SAN Disco lógico
- Russian: SAN SSH
- Simplified Chinese: SSH SAN 物理磁盘
- Spanish: Disco lógico de SAN de SSH

Remarks

- This sensor requires [credentials for Linux/Solaris/macOS \(SSH/WBEM\) systems](#) in the settings of the parent device.
- This sensor does not support every SAN, even if it provides a CLI. The sensor only works with specific devices, for example, the HP P2000.

- It might happen that the controller of your target device breaks down. Experience shows that this issue strongly depends on the hardware model you monitor. Increase the scanning interval to discharge the controller and try again.
- After a firmware update of the target device, this sensor might show incorrect channel values. Add this sensor anew in this case.
- This sensor has a medium performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)⁴⁴⁸⁵.
- Sometimes the devices you monitor with this SSH SAN sensor return status values that are not officially documented so that the shown sensor status in PRTG differs from the "real" device status. For more information on this issue, see the Knowledge Base: [Why does my SSH SAN sensor show a wrong status?](#)

Add Sensor

The [Add Sensor](#)³⁶⁷ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

SSH SAN Logical Disk Settings

Setting	Description
Volumes	<p>Select the volumes that you want to monitor. PRTG creates one sensor for each volume that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ X +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sshsanlogicaldisk ▪ sshsan ▪ logicaldisk
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SSH Specific

SSH Specific

Connection Timeout (Sec.) **i**

Shell Timeout (Sec.) **i**




SSH Port **i** Inherit port number from parent device (default)
 Enter custom port number

SSH Engine **i** Inherit from parent device (default)
 Default
 Compatibility Mode (deprecated)

Result Handling **i** Discard result
 Store result
 Store result in case of error

SSH Specific

Setting	Description
Connection Timeout (Sec.)	<p>Define a timeout in seconds for the connection. This is the time that the sensor waits to establish a connection to the host. Keep this value as low as possible. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i This sensor has a fixed timeout of 300 seconds. If you change the value, it does not have an effect on the timeout.</p> <p>i Ensure that the connection timeout is a value that is higher than the shell timeout to avoid potential errors.</p>
Shell Timeout (Sec.)	<p>Define a timeout in seconds for the shell response. This is the time in seconds the sensor waits for the shell to return a response after k has sent its specific command (for example, <code>cat /proc/loadavg</code>). The maximum value is 300 seconds (5 minutes). Enter an integer value.</p> <p>i This sensor has a fixed timeout of 300 seconds. If you change the value, it does not have an effect on the timeout.</p> <p>i Ensure that the shell timeout is a value that is lower than the connection timeout to avoid potential errors.</p>
SSH Port	Define which port this sensor uses for the SSH connection:

Setting	Description
Use Port Number	<ul style="list-style-type: none"> ▪ Inherit port number from parent device (default): Use the port number as defined in the Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems⁴⁵² section of the parent device settings. ▪ Enter custom port number: Define a custom port number below and do not use the port number from the parent device settings. <p>This setting is only visible if you select Enter custom port number above. Enter the port number (between 1 and 65535) that this sensor uses for the SSH connection. Enter an integer value.</p>
SSH Engine	<p>Select the method that you want to use to access data with this SSH sensor⁴³⁰¹. We strongly recommend that you use the default engine. You can still use the legacy mode for some time to ensure compatibility with your target systems. Choose between:</p> <ul style="list-style-type: none"> ▪ Inherit from parent device (default): Use the SSH engine that you defined in the parent device settings or higher up in the object hierarchy¹³⁸¹. If you have not changed the SSH engine, this is the recommended default engine. ▪ Default: This is the default monitoring method for SSH sensors. It provides the best performance and security. It is set by default in objects that are higher up in the hierarchy, so usually you can keep the Inherit from parent device (default) option. ▪ Compatibility mode (deprecated): Try this legacy method only if the default mode does not work on a target device. The compatibility mode is the SSH engine that PRTG used in previous versions. It is deprecated. We will remove this legacy mode soon, so try to get your SSH sensors running with the default SSH engine. <p> The option you select here overrides the selection of the SSH engine in a higher object: a parent device, group, probe, or root.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID] (SSHv2).txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ▪ Store result in case of error: Store the last sensor result only if the sensor shows the Down status. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

SSH SAN Logical Disk Settings

SSH SAN Logical Disk Settings

Volume ⓘ

Size ⓘ

Command Mode ⓘ

Volume01

Basic (recommended)

Advanced

SSH SAN Logical Disk Settings

Setting	Description
Volume	<p>Shows the volume that this sensor monitors.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Size	<p>Shows the size of the volume that this sensor monitors.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Command Mode	<p>Define the command set that the sensor uses on the device to get monitoring data:</p> <ul style="list-style-type: none"> ▪ Basic (recommended): Use the basic command set. We recommend that you use the basic command set for best sensor performance. This setting is appropriate for most scenarios. ▪ Advanced: Monitor additional data on the target device like IOs and bandwidth. <p> ⓘ Because this setting results in higher usage of system resources and so might cause sensor instabilities, we strongly recommend that you only select this option if this data is crucial for the volume that you monitor.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ




Graph Type ⓘ

Downtime


Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights


inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Health	<p>The health status of the disk</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Ok ▪ Down status: Fault, Not Available <p>i This channel is the primary channel by default.</p>
Total IOs	The total number of input/output (I/O) operations per second
Transferred	The data transferred per second

More

■ KNOWLEDGE BASE

Why does my SSH SAN sensor show a wrong status?

- <https://kb.paessler.com/en/topic/60145>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

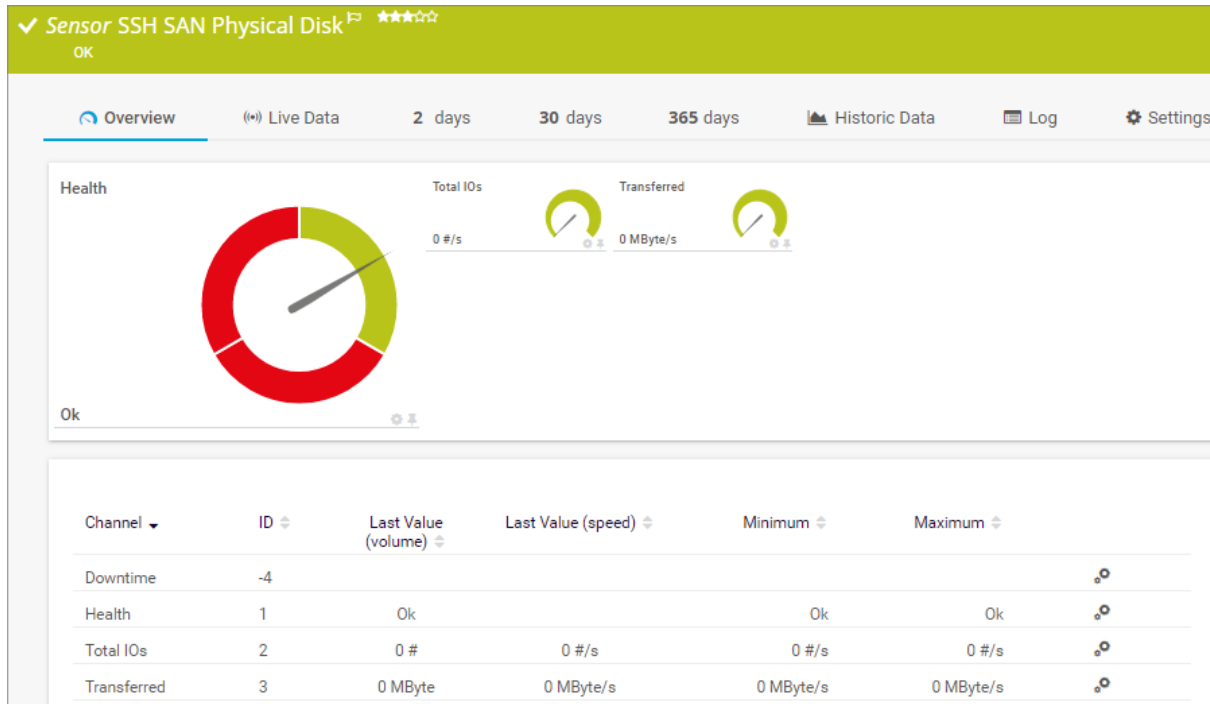
- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.8.221 SSH SAN Physical Disk Sensor

The SSH SAN Physical Disk sensor monitors a physical disk on a storage area network (SAN) via Secure Shell (SSH).

i The SAN must provide a command-line interface (CLI) for this purpose.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SSH SAN Physical Disk Sensor

Sensor in Other Languages

- Dutch: SSH SAN Fysieke Schijf
- French: Disque physique SSH SAN
- German: SSH SAN Physikalisches Laufwerk
- Japanese: SSH SAN 物理ディスク
- Portuguese: SSH SAN Disco físico
- Russian: SAN SSH
- Simplified Chinese: SSH SAN 物理磁盘
- Spanish: Disco físico de SAN de SSH

Remarks

- This sensor requires [credentials for Linux/Solaris/macOS \(SSH/WBEM\) systems](#) in the settings of the parent device.

- This sensor does not support every SAN, even if it provides a CLI. The sensor only works with specific devices, for example, the HP P2000.
- It might happen that the controller of your target device breaks down. Experience shows that this issue strongly depends on the hardware model you monitor. Increase the scanning interval to discharge the controller and try again.
- After a firmware update of the target device, this sensor might show incorrect channel values. Add this sensor anew in this case.
- This sensor has a medium performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#)^[448].
- Sometimes the devices you monitor with this SSH SAN sensor return status values that are not officially documented so that the shown sensor status in PRTG differs from the "real" device status. For more information on this issue, see the Knowledge Base: [Why does my SSH SAN sensor show a wrong status?](#)

Add Sensor

The [Add Sensor](#)^[36] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

SSH SAN Physical Disk Settings

Setting	Description
Disk	<p>Select the physical disks that you want to monitor. PRTG creates one sensor for each physical disk that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ X +

Priority ⓘ ★ ★ ★ ☆ ☆

Example Name

exampletag X +

★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sshsanphysicaldisk ▪ sshsan ▪ physicaldisk
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SSH Specific

SSH Specific

Connection Timeout (Sec.) **i**

Shell Timeout (Sec.) **i**

SSH Port **i** Inherit port number from parent device (default)
 Enter custom port number

SSH Engine **i** Inherit from parent device (default)
 Default
 Compatibility Mode (deprecated)

Result Handling **i** Discard result
 Store result
 Store result in case of error

SSH Specific

Setting	Description
Connection Timeout (Sec.)	<p>Define a timeout in seconds for the connection. This is the time that the sensor waits to establish a connection to the host. Keep this value as low as possible. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i This sensor has a fixed timeout of 300 seconds. If you change the value, it does not have an effect on the timeout.</p> <p>i Ensure that the connection timeout is a value that is higher than the shell timeout to avoid potential errors.</p>
Shell Timeout (Sec.)	<p>Define a timeout in seconds for the shell response. This is the time in seconds the sensor waits for the shell to return a response after k has sent its specific command (for example, <code>cat /proc/loadavg</code>). The maximum value is 300 seconds (5 minutes). Enter an integer value.</p> <p>i This sensor has a fixed timeout of 300 seconds. If you change the value, it does not have an effect on the timeout.</p> <p>i Ensure that the shell timeout is a value that is lower than the connection timeout to avoid potential errors.</p>
SSH Port	Define which port this sensor uses for the SSH connection:

Setting	Description
Use Port Number	<ul style="list-style-type: none"> ▪ Inherit port number from parent device (default): Use the port number as defined in the Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems section of the parent device settings. ▪ Enter custom port number: Define a custom port number below and do not use the port number from the parent device settings. <p>This setting is only visible if you select Enter custom port number above. Enter the port number (between 1 and 65535) that this sensor uses for the SSH connection. Enter an integer value.</p>
SSH Engine	<p>Select the method that you want to use to access data with this SSH sensor. We strongly recommend that you use the default engine. You can still use the legacy mode for some time to ensure compatibility with your target systems. Choose between:</p> <ul style="list-style-type: none"> ▪ Inherit from parent device (default): Use the SSH engine that you defined in the parent device settings or higher up in the object hierarchy. If you have not changed the SSH engine, this is the recommended default engine. ▪ Default: This is the default monitoring method for SSH sensors. It provides the best performance and security. It is set by default in objects that are higher up in the hierarchy, so usually you can keep the Inherit from parent device (default) option. ▪ Compatibility mode (deprecated): Try this legacy method only if the default mode does not work on a target device. The compatibility mode is the SSH engine that PRTG used in previous versions. It is deprecated. We will remove this legacy mode soon, so try to get your SSH sensors running with the default SSH engine. <p>i The option you select here overrides the selection of the SSH engine in a higher object: a parent device, group, probe, or root.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID] (SSHv2).txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ▪ Store result in case of error: Store the last sensor result only if the sensor shows the Down status. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

SSH SAN Physical Disk Settings

SSH SAN Physical Disk Settings

Disk ⓘ 1.1

Name ⓘ disk_1.1

Size ⓘ 450.0GB

Command Mode ⓘ Basic (recommended)
 Advanced

Request Mode ⓘ Request all historical data (default)
 Request actual counters


SSH SAN Physical Disk Settings


Setting	Description
Disk	Shows the disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Name	Shows the name of the disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Size	Shows the size of the disk that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Command Mode	Define the command set that the sensor uses on the device to get monitoring data: <ul style="list-style-type: none"> ▪ Basic (recommended): Use the basic command set. We recommend that you use the basic command set for best sensor performance. This setting is appropriate for most scenarios. ▪ Advanced: Monitor additional data on the target device like IOs and bandwidth. ⓘ Because this setting results in higher usage of system resources and so might cause sensor instabilities, we strongly recommend that you only select this option if this data is crucial for the volume that you monitor.
Request Mode	Define the which type of data the sensor requests:

Setting	Description
	<ul style="list-style-type: none"> Request all historical data: Use this mode to possibly deliver better data. Request actual counters: Use this mode if the device does not support Request all Historical Data. This mode might result in incorrect data and spikes in graphs.





Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type 
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



For more information, see section [Inheritance of Settings](#).


Scanning Interval

Click  to interrupt the inheritance.


Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Health	The health status of the disk

Channel	Description
	<ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Ok ▪ Down status: Fault, Not Available <p>i This channel is the primary channel by default.</p>
Total IOs	The total number of input/output (I/O) operations per second
Transferred	The data transferred per second

More

■ KNOWLEDGE BASE

Why does my SSH SAN sensor show a wrong status?

- <https://kb.paessler.com/en/topic/60145>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

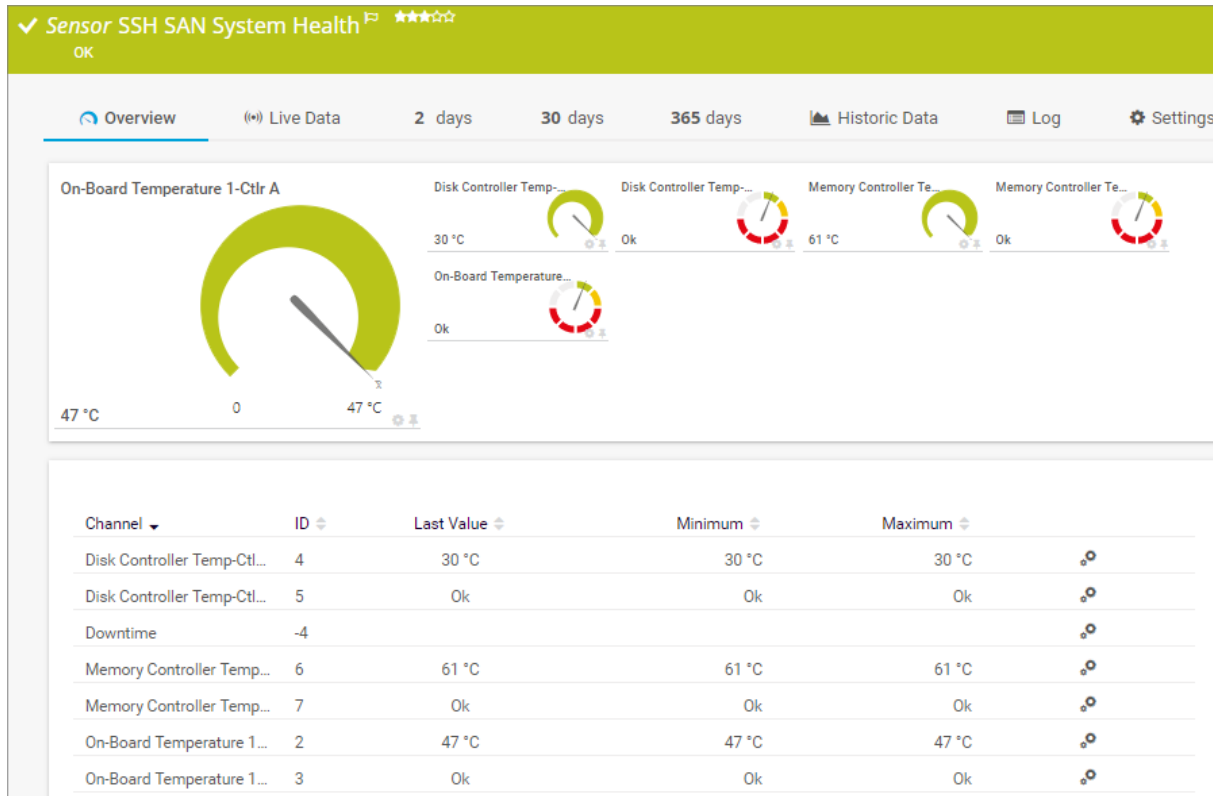
- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.8.222 SSH SAN System Health Sensor

The SSH SAN System Health sensor monitors the system health of a storage area network (SAN) via Secure Shell (SSH).

i The SAN must provide a command-line interface (CLI) for this purpose.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SSH SAN System Health Sensor

Sensor in Other Languages

- Dutch: SSH SAN systeemstatus
- French: L'état du système SSH SAN
- German: SSH SAN Systemzustand
- Japanese: SSH SAN システムの正常性
- Portuguese: SSH SAN Funcionamento do sistema
- Russian: SAN SSH
- Simplified Chinese: SSH SAN 系统健康状况
- Spanish: Estado del sistema de SAN de SSH

Remarks

- This sensor requires [credentials for Linux/Solaris/macOS \(SSH/WBEM\) systems](#) ^[452] in the settings of the parent device.
- This sensor does not support every SAN, even if it provides a CLI. The sensor only works with specific devices, for example, the HP P2000.
- It might happen that the controller of your target device breaks down. Experience shows that this issue strongly depends on the hardware model you monitor. Increase the scanning interval to discharge the controller and try again.
- After a firmware update of the target device, this sensor might show incorrect channel values. Add this sensor anew in this case.
- This sensor has a medium performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#) ^[448].
- Sometimes the devices you monitor with this SSH SAN sensor return status values that are not officially documented so that the shown sensor status in PRTG differs from the "real" device status. For more information on this issue, see the Knowledge Base: [Why does my SSH SAN sensor show a wrong status?](#)

Add Sensor

The [Add Sensor](#) ^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

SSH SAN Specific

Setting	Description
Metrics	<p>Select the metrics that you want to monitor. PRTG creates one sensor for each metric that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag ✕ +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sshsansystemhealth ▪ sshsan ▪ systemhealth
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SSH SAN Specific

SSH SAN Specific

Metric **i** Metric1

Monitoring Mode **i**

Automatic detection
 Firmware before June 2015
 Firmware as of June 2015

SSH SAN Specific

Setting	Description
Metric	<p>Shows the metric that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Monitoring Mode	<p>Define how the sensor requests data from the target device:</p> <ul style="list-style-type: none"> ▪ Automatic detection: Automatically detect the firmware version and use the appropriate mode. We recommend that you use this option and only explicitly define the firmware date if errors occur. ▪ Firmware before June 2015: Use the mode that is appropriate for firmware versions before June 2015. ▪ Firmware as of June 2015: Use the mode that is appropriate for firmware versions as of June 2015. <p>i The required mode depends on the firmware version of the target device. The sensor automatically detects the firmware version and uses the appropriate mode in most cases. If errors occur, explicitly define the firmware version.</p> <p>i We recommend that you use the default value.</p>

SSH Specific

SSH Specific

Connection Timeout (Sec.) ⓘ 60

Shell Timeout (Sec.) ⓘ 10




SSH Port ⓘ Inherit port number from parent device (default)
 Enter custom port number

SSH Engine ⓘ Inherit from parent device (default)
 Default
 Compatibility Mode (deprecated)

Result Handling ⓘ Discard result
 Store result
 Store result in case of error

SSH Specific

Setting	Description
Connection Timeout (Sec.)	<p>Define a timeout in seconds for the connection. This is the time that the sensor waits to establish a connection to the host. Keep this value as low as possible. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <ul style="list-style-type: none"> ⓘ This sensor has a fixed timeout of 300 seconds. If you change the value, it does not have an effect on the timeout. ⓘ Ensure that the connection timeout is a value that is higher than the shell timeout to avoid potential errors.
Shell Timeout (Sec.)	<p>Define a timeout in seconds for the shell response. This is the time in seconds the sensor waits for the shell to return a response after k has sent its specific command (for example, <code>cat /proc/loadavg</code>). The maximum value is 300 seconds (5 minutes). Enter an integer value.</p> <ul style="list-style-type: none"> ⓘ This sensor has a fixed timeout of 300 seconds. If you change the value, it does not have an effect on the timeout. ⓘ Ensure that the shell timeout is a value that is lower than the connection timeout to avoid potential errors.
SSH Port	<p>Define which port this sensor uses for the SSH connection:</p> <ul style="list-style-type: none"> ▪ Inherit port number from parent device (default): Use the port number as defined in the Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems^[452] section of the parent device settings. ▪ Enter custom port number: Define a custom port number below and do not use the port number from the parent device settings.

Setting	Description
Use Port Number	This setting is only visible if you select Enter custom port number above. Enter the port number (between 1 and 65535) that this sensor uses for the SSH connection. Enter an integer value.
SSH Engine	<p>Select the method that you want to use to access data with this SSH sensor⁴³⁰¹. We strongly recommend that you use the default engine. You can still use the legacy mode for some time to ensure compatibility with your target systems. Choose between:</p> <ul style="list-style-type: none"> ▪ Inherit from parent device (default): Use the SSH engine that you defined in the parent device settings or higher up in the object hierarchy¹³⁸¹. If you have not changed the SSH engine, this is the recommended default engine. ▪ Default: This is the default monitoring method for SSH sensors. It provides the best performance and security. It is set by default in objects that are higher up in the hierarchy, so usually you can keep the Inherit from parent device (default) option. ▪ Compatibility mode (deprecated): Try this legacy method only if the default mode does not work on a target device. The compatibility mode is the SSH engine that PRTG used in previous versions. It is deprecated. We will remove this legacy mode soon, so try to get your SSH sensors running with the default SSH engine. <p> The option you select here overrides the selection of the SSH engine in a higher object: a parent device, group, probe, or root.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID] (SSHv2).txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ▪ Store result in case of error: Store the last sensor result only if the sensor shows the Down status. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
Maintenance Window	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p> <p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Capacitor Cell [#] Voltage [Controller]	The capacitor cell voltage in volts (V)
Capacitor Cell [#] Voltage [Controller] Status	<p>The capacitor cell voltage status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Ok ▪ Warning status: Warning ▪ Down status: Error, Unavailable, Unknown, Unrecoverable ▪ Unknown status: Not Installed, Unsupported
Capacitor Pack Voltage [Controller]	The capacitor pack voltage in V
Capacitor Pack Voltage [Controller] Status	<p>The capacitor pack voltage status</p> <ul style="list-style-type: none"> ▪ Up status: Ok ▪ Warning status: Warning ▪ Down status: Error, Unavailable, Unknown, Unrecoverable ▪ Unknown status: Not Installed, Unsupported

Channel	Description
Disk Controller Temp [Controller]	The disk controller temperature
Disk Controller Temp [Controller] Status	<p>The disk controller temperature status</p> <ul style="list-style-type: none"> ▪ Up status: Ok ▪ Warning status: Warning ▪ Down status: Error, Unavailable, Unknown, Unrecoverable ▪ Unknown status: Not Installed, Unsupported
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Overall Unit Status	<p>The overall unit status</p> <ul style="list-style-type: none"> ▪ Up status: Ok ▪ Warning status: Warning ▪ Down status: Error, Unavailable, Unknown, Unrecoverable ▪ Unknown status: Not Installed, Unsupported
Memory Controller Temp [Controller]	The memory controller temperature
Memory Controller Temp [Controller] Status	<p>The memory controller temperature status</p> <ul style="list-style-type: none"> ▪ Up status: Ok ▪ Warning status: Warning ▪ Down status: Error, Unavailable, Unknown, Unrecoverable ▪ Unknown status: Not Installed, Unsupported
On-Board Temperature [Controller]	The on-board temperature
On-Board Temperature [Controller] Status	<p>The on-board temperature status</p> <ul style="list-style-type: none"> ▪ Up status: Ok ▪ Warning status: Warning ▪ Down status: Error, Unavailable, Unknown, Unrecoverable ▪ Unknown status: Not Installed, Unsupported

More

KNOWLEDGE BASE

Why does my SSH SAN sensor show a wrong status?





- <https://kb.paessler.com/en/topic/60145>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

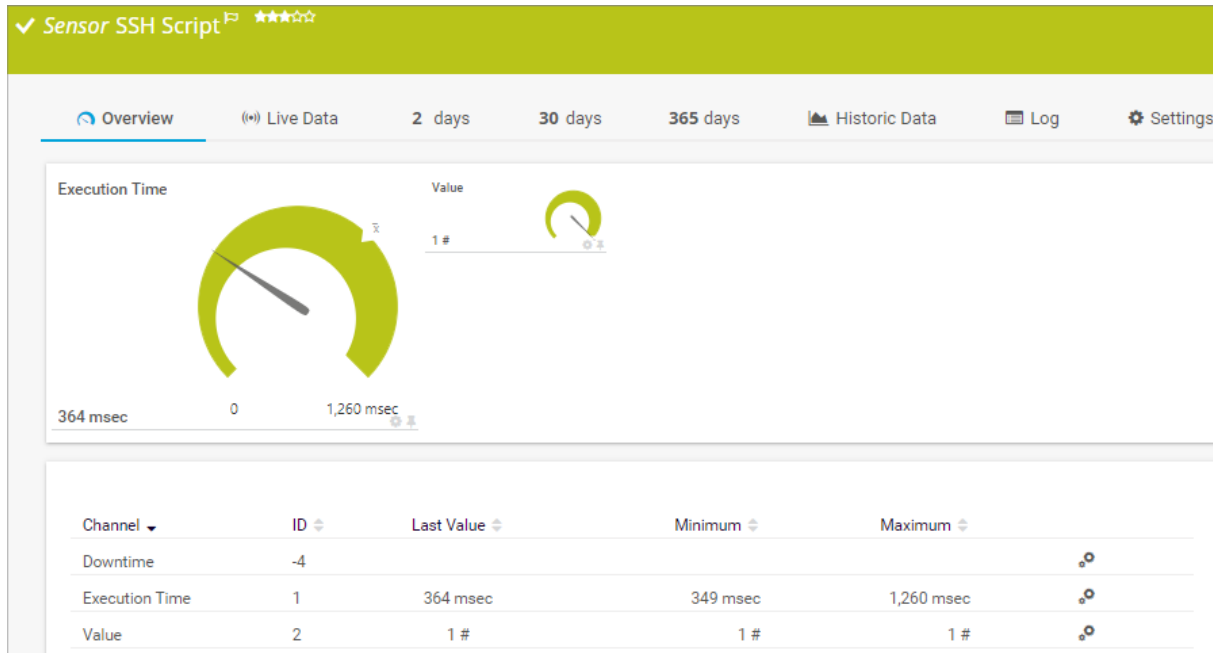
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3967

7.8.223 SSH Script Sensor

The SSH Script sensor connects to a Linux/Unix system via Secure Shell (SSH) and executes a script file that is located on the target system. This option is available as part of the PRTG API.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SSH Script Sensor

Sensor in Other Languages

- Dutch: SSH Script
- French: Script SSH
- German: SSH-Skript
- Japanese: SSH スクリプト
- Portuguese: SSH Script
- Russian: SSH
- Simplified Chinese: SSH 脚本
- Spanish: Secuencia de comandos de SSH

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- For security reasons, you must store your script file in the `/var/prtg/scripts` directory on the target system. Make sure that the script has executable rights. If the script is not available or was deleted from the directory, you get the error message [Script not found \(237\)](#).

- This sensor requires [credentials for Linux/Solaris/macOS \(SSH/WBEM\) systems](#)^[452] in the settings of the parent device.
- This sensor cannot support all Linux/Unix and macOS distributions.
- For details about the return value format, see section [Custom Sensors](#)^[439].
- See the Knowledge Base: [SSH and SFTP sensors in Unknown status](#)

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Sensor Settings

Setting	Description
Script	<p>Select a script file from the dropdown list. It shows all script files that are available in the <code>/var/prtg/scripts</code> directory on the target Linux/Unix system. For a script file to appear in this list, store the target file in this directory.</p> <ul style="list-style-type: none"> ❗ Make sure that the script has executable rights. ❗ To show the expected sensor value and status^[197], your file must use the correct format for the returned values. In this case, it is <code>exitcode:value:message</code> to standard output <code>stdout</code>. The exit code determines the sensor status. ■ For detailed information on how to create custom sensors and for the return format, see section Custom Sensors^[439]. ■ For an example script, see the Knowledge Base: Is there a shell script example for the SSH Script sensor?
Value Type	<p>Define the type of the values that your executable or script file returns:</p> <ul style="list-style-type: none"> ▪ Integer: An integer is expected as return value. If the script returns a float, PRTG displays the value 0. ▪ Float: A float is expected as return value, with a dot (.) between the predecimal position and the decimal places. <ul style="list-style-type: none"> ❗ The sensor also displays integer values unless they produce a buffer overflow. ▪ Counter: Your script returns an integer that increases. PRTG shows the difference between the values of two sensor scans. <ul style="list-style-type: none"> ❗ A counter must return an integer. It does not support float values. ❗ The sensor does not support string values.
Channel Name	<p>Enter a name for the channel in which the sensor shows returned values. Enter a string. This is for display purposes only. You can change the name later in the channel settings^[397].</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sshscript
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

Sensor Settings

Sensor Settings

The sensor executes the script on the parent device. The working directory for the script is the parent directory on the target Linux/Unix system.

Script ⓘ

Character Encoding ⓘ UTF-8 (default)
 ASCII

Parameters ⓘ

Mutex Name ⓘ

Unit String ⓘ

Value Type ⓘ

If Value Changes ⓘ Ignore changes
 Trigger 'change' notification

Sensor Settings

Setting	Description
Script	Shows the name of the script that the sensor executes with each scanning interval. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Character Encoding	Define the character encoding that you use in your script to correctly display the sensor message: <ul style="list-style-type: none"> ▪ UTF-8 (default) ▪ ASCII
Parameters	If your script file catches command-line parameters, define them here. You can also use placeholders. Enter a string or leave the field empty. ⓘ For a full list of all placeholders, see section Custom Sensors 4449 . ⓘ You must escape special characters and whitespaces in your parameters and surround them with double quotes. See section Escape Special Characters and Whitespaces in Parameters 3285 for details. ⓘ In SSH scripts, you can use alphanumeric characters and the special characters ".", "_", "-", "=", and "/" outside of quoted strings.
Mutex Name	Define a mutual exclusion (mutex) name for the process. Enter a string or leave the field empty.

Setting	Description
	<p>i PRTG runs all custom script sensors that have the same mutex name serially (not simultaneously). This is useful if you use a lot of sensors and want to avoid high resource usage caused by processes that run running at the same time.</p> <p>■ See the Knowledge Base: What is the Mutex Name in the PRTG EXE/Script settings?</p>
Unit String	Define a unit for the channel value. Enter a string. This is for display purposes only and is the default unit for a new channel. You can change the unit after sensor creation in the sensor's channel settings.
Value Type	Shows the expected type of the returned value. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
If Value Changes	Define what the sensor does when the sensor value changes: <ul style="list-style-type: none"> Ignore changes (default): Take no action on change. Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁸, you can use this mechanism to trigger a notification³⁹⁸⁷ whenever the sensor value changes.

SSH Specific

SSH Specific

Connection Timeout (Sec.) ⓘ 60

Shell Timeout (Sec.) ⓘ 10

SSH Port ⓘ Inherit port number from parent device (default)
 Enter custom port number

SSH Engine ⓘ Inherit from parent device (default)
 Default
 Compatibility Mode (deprecated)

Result Handling ⓘ Discard result
 Store result
 Store result in case of error

SSH Specific

Setting	Description
Connection Timeout (Sec.)	<p>Define a timeout in seconds for the connection. This is the time that the sensor waits to establish a connection to the host. Keep this value as low as possible. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i Ensure that the connection timeout is a value that is higher than the shell timeout to avoid potential errors.</p>
Shell Timeout (Sec.)	<p>Define a timeout in seconds for the shell response. This is the time in seconds the sensor waits for the shell to return a response after k has sent its specific command (for example, <code>cat /proc/loadavg</code>). The maximum value is 300 seconds (5 minutes). Enter an integer value.</p> <p>i Ensure that the shell timeout is a value that is lower than the connection timeout to avoid potential errors.</p>
SSH Port	<p>Define which port this sensor uses for the SSH connection:</p> <ul style="list-style-type: none"> ▪ Inherit port number from parent device (default): Use the port number as defined in the Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems^[452] section of the parent device settings. ▪ Enter custom port number: Define a custom port number below and do not use the port number from the parent device settings.
Use Port Number	<p>This setting is only visible if you select Enter custom port number above. Enter the port number (between 1 and 65535) that this sensor uses for the SSH connection. Enter an integer value.</p>
SSH Engine	<p>Select the method that you want to use to access data with this SSH sensor^[430]. We strongly recommend that you use the default engine. You can still use the legacy mode for some time to ensure compatibility with your target systems. Choose between:</p> <ul style="list-style-type: none"> ▪ Inherit from parent device (default): Use the SSH engine that you defined in the parent device settings or higher up in the object hierarchy^[138]. If you have not changed the SSH engine, this is the recommended default engine. ▪ Default: This is the default monitoring method for SSH sensors. It provides the best performance and security. It is set by default in objects that are higher up in the hierarchy, so usually you can keep the Inherit from parent device (default) option. ▪ Compatibility mode (deprecated): Try this legacy method only if the default mode does not work on a target device. The compatibility mode is the SSH engine that PRTG used in previous versions. It is deprecated. We will remove this legacy mode soon, so try to get your SSH sensors running with the default SSH engine. <p>i The option you select here overrides the selection of the SSH engine in a higher object: a parent device, group, probe, or root.</p>

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID] (SSHv2).txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ▪ Store result in case of error: Store the last sensor result only if the sensor shows the Down status. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from Root

Channel Unit Types ⓘ

Channel Type	Unit
Bytes (Bandwidth)	KB ▼ kbit ▼ / ▼ sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> ⓘ Custom channel types are only available on sensor level.</p>

Escape Special Characters and Whitespaces in Parameters

You need to escape special characters in parameters that you pass to an executable or script and surround them with quotation marks to make sure that the characters are correctly interpreted. PowerShell scripts in particular require adequate escaping so that the parameters are passed in a valid PowerShell syntax. PRTG automatically does most of the escaping for you.

Follow these rules to escape special characters and whitespaces in the parameters fields:

- Use quotes for parameters that contain whitespaces.

```
-name "Mr John Q Public"
-name 'Mr John Q Public'
```

- Use double quotes for parameters that contain single quotes.

```
-name "Mr 'John Q' Public"
```

- Use single quotes for parameters that contain double quotes.

```
-name 'Mr "John Q" Public'
```

- Use a backslash (\) to escape and pass a literal double quote.

```
-name pub\"lic
```

- Use double quotes for parameters that contain double and single quotes and escape double quotes.

```
-name "pu'b\"lic"
```

- ❗ In SSH scripts, you can use alphanumeric characters and the special characters ".", "_", "-", "=", and "/" outside of quoted strings.
- ❗ We recommend that you do not pass passwords in parameters. Use placeholders instead. See section [Custom Sensors](#)⁴⁴⁵⁰ for details.

Channel List

- ❗ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Execution Time	The execution time in milliseconds (msec) ❗ This channel is the primary channel by default.
[Value]	The value that the script file returns in one channel ■ For details about the return value format, see section Custom Sensors ⁴⁴³⁹ .

More

■ KNOWLEDGE BASE

SSH and SFTP sensors in Unknown status

- <https://kb.paessler.com/en/topic/79174>

Is there a shell script example for the SSH Script sensor?

- <https://kb.paessler.com/en/topic/39513>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What is the Mutex Name in the EXE/Script sensor settings?

- <https://kb.paessler.com/en/topic/6673>

How can I test if parameters are correctly transmitted to my script when using an EXE/Script sensor?

- <https://kb.paessler.com/en/topic/11283>

How can I show special characters with EXE/Script sensors?

- <https://kb.paessler.com/en/topic/64817>

Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?

- <https://kb.paessler.com/en/topic/75372>

How and where does PRTG store its data?





- <https://kb.paessler.com/en/topic/463>

For which sensor types do you recommend Windows Server 2012 R2 or later and why?

- <https://kb.paessler.com/en/topic/64331>

Sensor Settings Overview

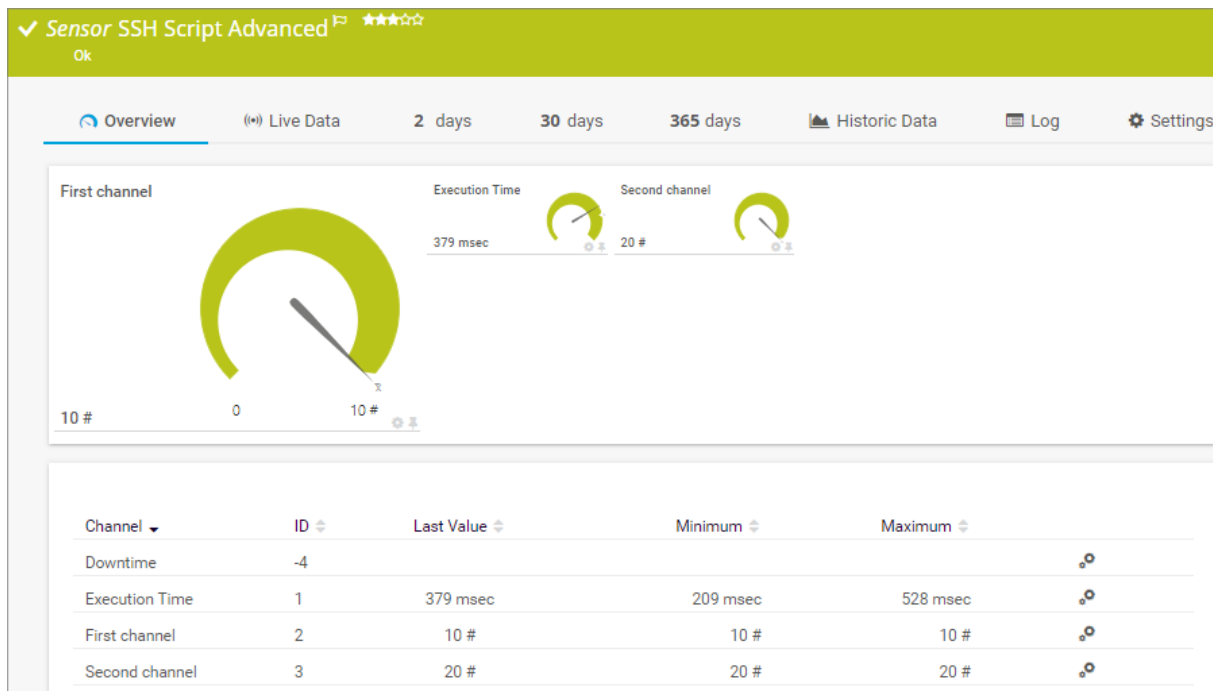
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.224 SSH Script Advanced Sensor

The SSH Script Advanced sensor connects to a Linux/Unix system via Secure Shell (SSH) and executes a script file that is located on the target system. This option is available as part of the PRTG API.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SSH Script Advanced Sensor

Sensor in Other Languages

- Dutch: SSH Script Geavanceerd
- French: Script SSH avancé
- German: SSH-Skript (Erweitert)
- Japanese: SSH スクリプト(詳細)
- Portuguese: SSH Script Avançado
- Russian: SSH
- Simplified Chinese: 高级 SSH 脚本
- Spanish: Secuencia de comandos SSH avanzada

Remarks




- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- For security reasons, you must store the script file in the `/var/prtg/scriptsxml` directory on the target system. Make sure that the script has executable rights.

- This sensor requires [credentials for Linux/Solaris/macOS \(SSH/WBEM\) systems](#) ⁴⁵² in the settings of the parent device.
- This sensor cannot support all Linux/Unix and macOS distributions.
- This sensor does not officially support more than 50 channels. Depending on the data used with this sensor, you might exceed the maximum number of supported channels. In this case, PRTG tries to display all channels. Be aware, however, that you experience limited usability and performance.
- For details about the return value format, see section [Custom Sensors](#) ⁴⁴⁴.
- See the Knowledge Base: [SSH and SFTP sensors in Unknown status](#)

Add Sensor

The [Add Sensor](#) ³⁶⁷ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Sensor Settings

Setting	Description
Script	<p>Select a script file from the dropdown list. It shows all script files that are available in the <code>/var/prtg/scripts</code> directory on the target Linux/Unix system. For a script file to appear in this list, store the target file in this directory.</p> <ul style="list-style-type: none">  Make sure that the script has executable rights.  To show the expected sensor value and status ¹⁹⁷, your files must return the expected XML or JSON format to standard output <code>stdout</code>. The values and message must be embedded in the XML or JSON.  For detailed information on how to create custom sensors and for the return format, see section Custom Sensors ⁴⁴⁴.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ ⊕

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> sshscript
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Sensor Settings

Sensor Settings

Important: The script is executed on the device the sensor is created on. The working directory for the script is the scripts parent directory on the target Linux/Unix system.

Script

Parameters

Mutex Name

Sensor Settings

Setting	Description
Script	Shows the script that the sensor executes with each scanning interval. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Parameters	If your script file catches command-line parameters, you can define them here. You can use also placeholders. Enter a string or leave the field empty. ■ For a full list of all placeholders, see section Custom Sensors ⁴⁴⁴⁹ . ⓘ You must escape special characters and whitespaces in your parameters and surround them with double quotes. See section Escape Special Characters and Whitespaces in Parameters ³²⁹⁹ for details. ⓘ In SSH scripts, you can use alphanumeric characters and the special characters ".", "_", "-", "=", and "/" outside of quoted strings.
Mutex Name	Define a mutual exclusion (mutex) name for the process. Enter a string or leave the field empty. ⓘ PRTG runs all custom script sensors that have the same mutex name serially (not simultaneously). This is useful if you use a lot of sensors and want to avoid high resource usage caused by processes that run running at the same time. ■ See the Knowledge Base: What is the Mutex Name in the PRTG EXE/Script settings?

SSH Specific

SSH Specific

Connection Timeout (Sec.) ⓘ 60

Shell Timeout (Sec.) ⓘ 10

SSH Port ⓘ Inherit port number from parent device (default)
 Enter custom port number

SSH Engine ⓘ Inherit from parent device (default)
 Default
 Compatibility Mode (deprecated)

Result Handling ⓘ Discard result
 Store result
 Store result in case of error

SSH Specific

Setting	Description
Connection Timeout (Sec.)	<p>Define a timeout in seconds for the connection. This is the time that the sensor waits to establish a connection to the host. Keep this value as low as possible. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i Ensure that the connection timeout is a value that is higher than the shell timeout to avoid potential errors.</p>
Shell Timeout (Sec.)	<p>Define a timeout in seconds for the shell response. This is the time in seconds the sensor waits for the shell to return a response after k has sent its specific command (for example, <code>cat /proc/loadavg</code>). The maximum value is 300 seconds (5 minutes). Enter an integer value.</p> <p>i Ensure that the shell timeout is a value that is lower than the connection timeout to avoid potential errors.</p>
SSH Port	<p>Define which port this sensor uses for the SSH connection:</p> <ul style="list-style-type: none"> ▪ Inherit port number from parent device (default): Use the port number as defined in the Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems^[452] section of the parent device settings. ▪ Enter custom port number: Define a custom port number below and do not use the port number from the parent device settings.
Use Port Number	<p>This setting is only visible if you select Enter custom port number above. Enter the port number (between 1 and 65535) that this sensor uses for the SSH connection. Enter an integer value.</p>
SSH Engine	<p>Select the method that you want to use to access data with this SSH sensor^[430]. We strongly recommend that you use the default engine. You can still use the legacy mode for some time to ensure compatibility with your target systems. Choose between:</p> <ul style="list-style-type: none"> ▪ Inherit from parent device (default): Use the SSH engine that you defined in the parent device settings or higher up in the object hierarchy^[138]. If you have not changed the SSH engine, this is the recommended default engine. ▪ Default: This is the default monitoring method for SSH sensors. It provides the best performance and security. It is set by default in objects that are higher up in the hierarchy, so usually you can keep the Inherit from parent device (default) option. ▪ Compatibility mode (deprecated): Try this legacy method only if the default mode does not work on a target device. The compatibility mode is the SSH engine that PRTG used in previous versions. It is deprecated. We will remove this legacy mode soon, so try to get your SSH sensors running with the default SSH engine. <p>i The option you select here overrides the selection of the SSH engine in a higher object: a parent device, group, probe, or root.</p>

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID] (SSHv2).txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ▪ Store result in case of error: Store the last sensor result only if the sensor shows the Down status. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking ⚙ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from Root

Channel Unit Types ⓘ

Channel Type	Unit
Bytes (Bandwidth)	KB ▼ kbit ▼ / ▼ sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> ⓘ Custom channel types are only available on sensor level.</p>

Escape Special Characters and Whitespaces in Parameters

You need to escape special characters in parameters that you pass to an executable or script and surround them with quotation marks to make sure that the characters are correctly interpreted. PowerShell scripts in particular require adequate escaping so that the parameters are passed in a valid PowerShell syntax. PRTG automatically does most of the escaping for you.

Follow these rules to escape special characters and whitespaces in the parameters fields:

- Use quotes for parameters that contain whitespaces.

```
-name "Mr John Q Public"
-name 'Mr John Q Public'
```

- Use double quotes for parameters that contain single quotes.

```
-name "Mr 'John Q' Public"
```

- Use single quotes for parameters that contain double quotes.

```
-name 'Mr "John Q" Public'
```

- Use a backslash (\) to escape and pass a literal double quote.

```
-name pub\"lic
```

- Use double quotes for parameters that contain double and single quotes and escape double quotes.

```
-name "pu'b\"lic"
```

- ❗ In SSH scripts, you can use alphanumeric characters and the special characters ".", "_", "-", "=", and "/" outside of quoted strings.
- ❗ We recommend that you do not pass passwords in parameters. Use placeholders instead. See section [Custom Sensors](#)⁴⁴⁵⁰ for details.

Channel List

- ❗ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Execution Time	The execution time in milliseconds (msec)
[Value]	The values that the script file returns in several channels <ul style="list-style-type: none"> ■ For details about the return value format, see section Custom Sensors⁴⁴⁴⁰.

More

■ KNOWLEDGE BASE

SSH and SFTP sensors in Unknown status

- <https://kb.paessler.com/en/topic/79174>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

What is the Mutex Name in the EXE/Script sensor settings?

- <https://kb.paessler.com/en/topic/6673>

How can I test if parameters are correctly transmitted to my script when using an EXE/Script sensor?

- <https://kb.paessler.com/en/topic/11283>

How can I show special characters with EXE/Script sensors?

- <https://kb.paessler.com/en/topic/64817>

Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?

- <https://kb.paessler.com/en/topic/75372>

How and where does PRTG store its data?





- <https://kb.paessler.com/en/topic/463>

For which sensor types do you recommend Windows Server 2012 R2 or later and why?

- <https://kb.paessler.com/en/topic/64331>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.225 SSL Certificate Sensor

The SSL Certificate sensor monitors the certificate of a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection.

i The sensor also shows the certificate common name and the certificate thumbprint in the sensor message.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).

Channel	ID	Last Value	Minimum	Maximum
Common Name Check	7	Disabled	Disabled	Disabled
Days to Expiration	2	64	64	64
Downtime	-4			
Public Key Length	5	Good (2048)	Good (2048)	Good (2048)
Revoked	4	No	Unable to check revocation...	No
Root Authority Trusted	3	Yes	Yes	Yes
Self-Signed	6	No	No	No

SSL Certificate Sensor

Sensor in Other Languages

- Dutch: SSL Certificaat
- French: Certificat SSL
- German: SSL-Zertifikat
- Japanese: SSL 証明書
- Portuguese: Certificado SSL
- Russian: SSL
- Simplified Chinese: SSL 证书
- Spanish: Certificado SSL

Remarks

- Enter the Domain Name System (DNS) name in the [settings of the parent device](#) exactly as it is written in your certificate. You can also use [wildcards](#).
- To check the revocation status of a certificate, the sensor uses WinHTTP to auto-detect the proxy server to use. You can also manually define a server. If you do not define a proxy server, PRTG uses the default WinHTTP proxy settings. For more information, see the Knowledge Base: [How can I configure the WinHTTP proxy settings for the SSL Certificate Sensor?](#)
- This sensor has predefined limits for several metrics. You can individually change these limits in the channel settings. For detailed information about channel limits, see section [Channel Settings](#).
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

i This sensor supersedes the deprecated HTTP Certificate Expiry sensor.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog box. It has a title bar 'Basic Sensor Settings' and a close button. The main area contains three rows of settings:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A text input field containing 'exampletag' with a blue 'X' delete button and a '+' add button.
- Priority**: A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree , as well as in alarms , logs , notifications , reports , maps , libraries , and tickets .

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sslcertificate ▪ ssl ▪ certificate
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the TCP read request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SSL Certificate Specific

SSL Certificate Specific

Port

Virtual Host (SNI Domain)

Certificate Name Validation Do not compare common name (CN) with device address or SNI (default)
 Compare and show down status if common name (CN) and address/SNI do not match
 Compare and show down status if common name (CN)/alternative names (SAN) and address/SNI do not match

SSL Certificate Specific

Setting	Description
Port	Enter the number of the port to which this sensor connects. Enter an integer value. The default port is 443.
Virtual Host (SNI Domain)	<p>Define the host name that the sensor tries to query if your server has multiple certificates on the same IP address and port combination. Enter a string.</p> <p>i In the case of virtual hosting, you must identify the specific certificate for a specific domain while all domains use the same IP address, you can use SNI, which is an extension of TLS.</p> <p>i If you select Certificate Name Validation below, the sensor compares the common name and optionally alternative names with the SNI. Leave this field empty to validate the common name with the host address of the parent device.</p>
Certificate Name Validation	<p>Define if you want the sensor to validate the certificate name:</p> <ul style="list-style-type: none"> ▪ Do not compare common name (CN) with device address or SNI (default): Do not check if the certificate name is valid by comparing it with the address of the parent device or the defined SNI. ▪ Compare and show down status if common name (CN) and address/SNI do not match: Check the common name to validate the certificate name. If you define an SNI above, the sensor compares the common name with the SNI. If you do not define an SNI, the sensor uses the host address of the parent device. If the common name and the checked address/SNI do not match, the sensor shows the Down status¹⁹⁷. ▪ Compare and show down status if common name (CN)/alternative names (SAN) and address/SNI do not match: Check the common name and the Subject Alternative Names (SAN) to validate the certificate. If you define an SNI domain above, the sensor compares the common name and alternative names with the SNI. If you do not define an SNI, the sensor uses the host address of the parent device. If the common name or alternative names and the checked address/SNI do not match, the sensor shows the Down status.

Connection Specific

Connection Specific

Use SOCKS Proxy (v5 only) ⓘ
 Do not use SOCKS proxy (default)
 Use SOCKS proxy

Connection Specific



Setting	Description
Use SOCKS Proxy (v5 only)	<p>Define if the sensor uses a SOCKS proxy server for the sensor connection:</p> <ul style="list-style-type: none"> ▪ Do not use SOCKS proxy (default): Directly connect to the target host without using a SOCKS proxy. ▪ Use SOCKS proxy: Connect using SOCKS5. Provide data for the SOCKS connection below. ⓘ Other SOCKS versions are not supported. <p>ⓘ This sensor only supports SOCKS5 proxies. It does not support HTTP proxies.</p>
Proxy Server	This setting is only visible if you select Use SOCKS proxy above. Enter the IP address or host name of the proxy server that the sensor uses for connection.
Proxy Server Port	This setting is only visible if you select Use SOCKS proxy above. Enter the port number of the proxy server that the sensor uses for connection.
Proxy Server User Name	This setting is only visible if you select Use SOCKS proxy above. If the proxy server requires authentication, enter a username.
Proxy Server Password	This setting is only visible if you select Use SOCKS proxy above. If the proxy server requires authentication, enter the password for the user you specified above.


Debug Options

Debug Options

Result Handling ⓘ
 Discard result
 Store result


Debug Options


Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result to the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].Data.txt, Result of Sensor [ID] (Certificate 0 in Certificate Chain).cer, Result of Sensor [ID] (Certificate 1 in Certificate Chain).cer, Result of Sensor [ID] (Certificate 2 in Certificate Chain).cer, Result of Sensor [ID] (Certificate Chain).txt, and Result of Sensor [ID] (Certificate).cer. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

 You can use the debug option to get a logfile with information about the certificate chain. Additionally, certificates in the certificate chain are stored in the log folder (.cer files). This can help you, for example, if you have issues with the Root Authority Trusted channel of this sensor.



Sensor Display


Sensor Display

Primary Channel  Downtime


Graph Type  Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ^[4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ^[153].</p>

Using Wildcards

You can use wildcards in the IP Address/DNS Name in the [device settings](#) ^[446]. Wildcards that apply to only one level of the domain name are supported.

Example	Result
*.wildcard.com for www.wildcard.com	Works
api.wildcard.com for api.wildcard.com	Works

Example	Result
contoso.com for contoso.com	Works
*.subapi.subapi2.wildcard.com for de.subapi.subapi2.wildcard.com	Works
*. *.wildcard.com for www.de.wildcard.com	Not supported
*.wildcard.com for de.subapi.wildcard.com	Doesn't work
www.contoso.com for contoso.com	Doesn't work
subapi.*.wildcard.com for subapi.dns.wildcard.com	Doesn't work

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Common Name Check	<p>If the common name or subject-alternative names match the host address or Server Name Identification (SNI) (if certificate name validation is enabled)</p> <ul style="list-style-type: none"> ▪ Up status: CN/SAN Match, Disabled, Matches Device Address, Matches SNI ▪ Down status: CN/SAN Do Not Match SNI, Does Not Match Device Address, Does Not Match SNI
Days To Expiration	<p>The days to expiration with a predefined lower warning limit (28 days) and lower error limit (7 days)</p> <p>i This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Public Key Length	The public key length

Channel	Description
	<ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: <ul style="list-style-type: none"> ▫ RSA keys: For 2048-bit keys (good security) and longer (perfect security) ▫ Elliptic Curve Cryptography (ECC) keys: For 128-bit and 192-bit keys (good security) and longer (perfect security) ▪ Warning status: For weak security ▪ Down status: For shorter keys (unsecure) ▪ Unknown status: Unknown
Revoked	<p>If the certificate has been revoked</p> <ul style="list-style-type: none"> ▪ Up status: No ▪ Warning status: Unable To Check Revocation Status ▪ Down status: Yes
Root Authority Trusted	<p>If the certificate is trusted as root authority</p> <ul style="list-style-type: none"> ▪ Up status: Yes ▪ Warning status: No
Self-Signed	<p>If a self-signed certificate is used</p> <ul style="list-style-type: none"> ▪ Up status: Yes, No

More

KNOWLEDGE BASE

How can I configure the WinHTTP proxy settings for the SSL Certificate sensor?

- <https://kb.paessler.com/en/topic/86280>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

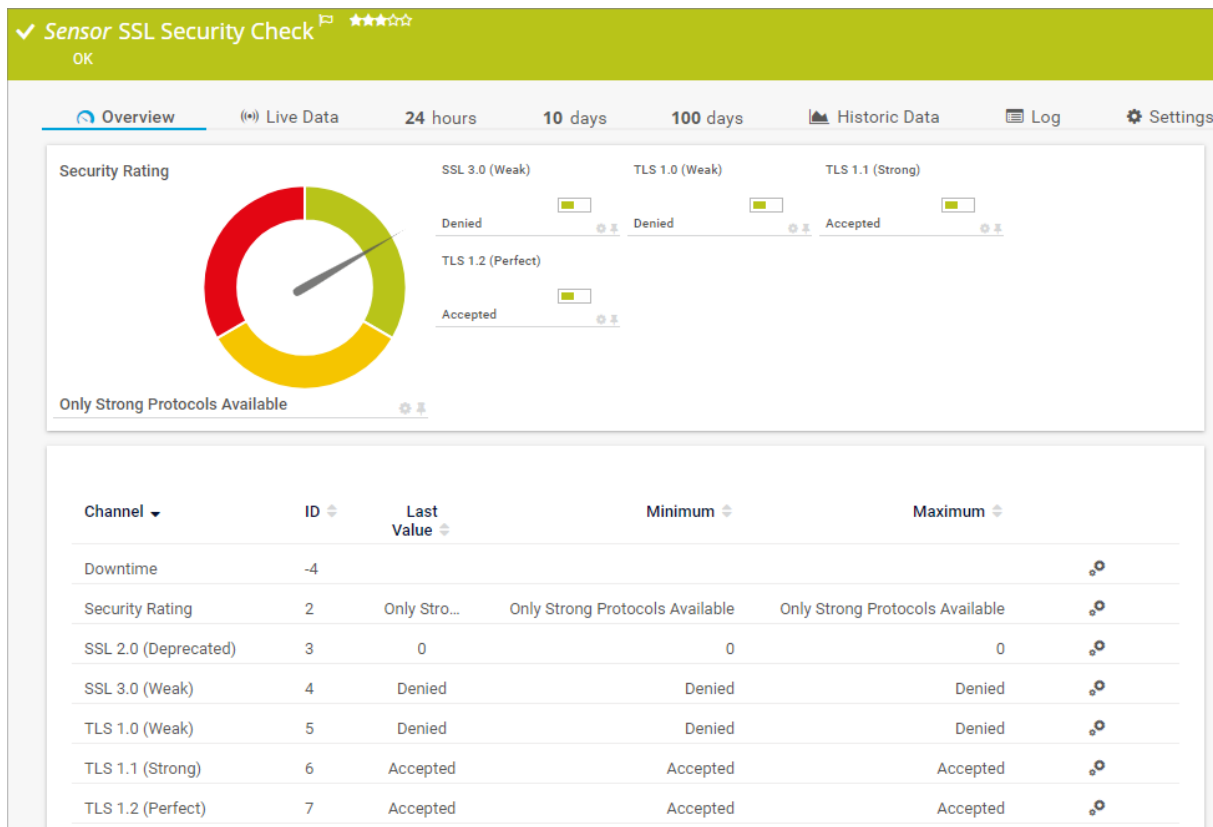
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#) ⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#) ³⁹⁷²
- [Channel Settings](#) ³⁹⁷⁷
- [Notification Triggers Settings](#) ³⁹⁸⁷

7.8.226 SSL Security Check Sensor

The SSL Security Check sensor monitors Secure Sockets Layer (SSL)/Transport Layer Security (TLS) connectivity to the port of a device. It tries to connect to the specified TCP/IP port number of a device with different SSL/TLS versions and shows if the device supports a particular protocol.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



SSL Security Check Sensor

Sensor in Other Languages

- Dutch: SSL Security Check
- French: Vérification de sécurité SSL
- German: SSL-Sicherheitsüberprüfung
- Japanese: SSL セキュリティーチェック
- Portuguese: Verificação de segurança SSL
- Russian: SSL
- Simplified Chinese: SSL 安全检查
- Spanish: Comprobación de seguridad SSL

Remarks

- This sensor only checks accepted protocols, it does not consider the used ciphers.

- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).
- See the Knowledge Base: [How do you determine the protocol security ratings of the SSL Security Check sensor?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A list of tags with "exampletag" selected. There are "X" and "+" icons for removing and adding tags.
- Priority:** A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p>

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ sslsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SSL Security Specific

SSL Security Specific

Timeout (Sec.) **i**

Port **i**

Virtual Host (SNI Domain) **i**

SSL Security Specific

Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
Port	Enter the number of the port to which this sensor connects. Enter an integer value. The default port is 443.

Setting	Description
Virtual Host (SNI Domain)	Enter the host name that the sensor queries. The sensor uses this host for the connection if the target server has multiple certificates on the same IP address and IP port when using Server Name Identification (SNI).

Connection Specific

Connection Specific

Use SOCKS Proxy (v5 only) ⓘ
 Do not use SOCKS proxy (default)
 Use SOCKS proxy

Connection Specific

Setting	Description
Use SOCKS Proxy (v5 only)	<p>Define if the sensor uses a SOCKS proxy server for the sensor connection:</p> <ul style="list-style-type: none"> ▪ Do not use SOCKS proxy (default): Directly connect to the target host without using a SOCKS proxy. ▪ Use SOCKS proxy: Connect using SOCKS5. Provide data for the SOCKS connection below. <ul style="list-style-type: none"> ⓘ Other SOCKS versions are not supported. ⓘ This sensor only supports SOCKS5 proxies. It does not support HTTP proxies.
Proxy Server	This setting is only visible if you select Use SOCKS proxy above. Enter the IP address or host name of the proxy server that the sensor uses for connection.
Proxy Server Port	This setting is only visible if you select Use SOCKS proxy above. Enter the port number of the proxy server that the sensor uses for connection.
Proxy Server User Name	This setting is only visible if you select Use SOCKS proxy above. If the proxy server requires authentication, enter a username.
Proxy Server Password	This setting is only visible if you select Use SOCKS proxy above. If the proxy server requires authentication, enter the password for the user you specified above.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click ⓘ to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Security Rating	<p>The security of the connection to the defined port</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: Only Strong Protocols Available ▪ Warning status: Weak Protocols Available ▪ Down status: No Secure Protocol Available <p> This channel is the primary channel by default.</p>
SSL 2.0 (Deprecated)	No longer available
SSL 3.0 (Weak)	<p>The status of connections using SSL v3</p> <ul style="list-style-type: none"> ▪ Up status: Denied ▪ Warning status: Accepted

Channel	Description
TLS 1.0 (Weak)	The status of connections using TLS 1.0 <ul style="list-style-type: none">▪ Up status: Denied▪ Warning status: Accepted
TLS 1.1 (Strong)	The status of connections using TLS 1.1 <ul style="list-style-type: none">▪ Up status: Accepted▪ Unknown status: Denied
TLS 1.2 (Perfect)	The status of connections using TLS 1.2 <ul style="list-style-type: none">▪ Up status: Accepted▪ Unknown status: Denied

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

How do you determine the protocol security ratings of the SSL Security Check sensor?

- <https://kb.paessler.com/en/topic/71566>

Sensor Settings Overview

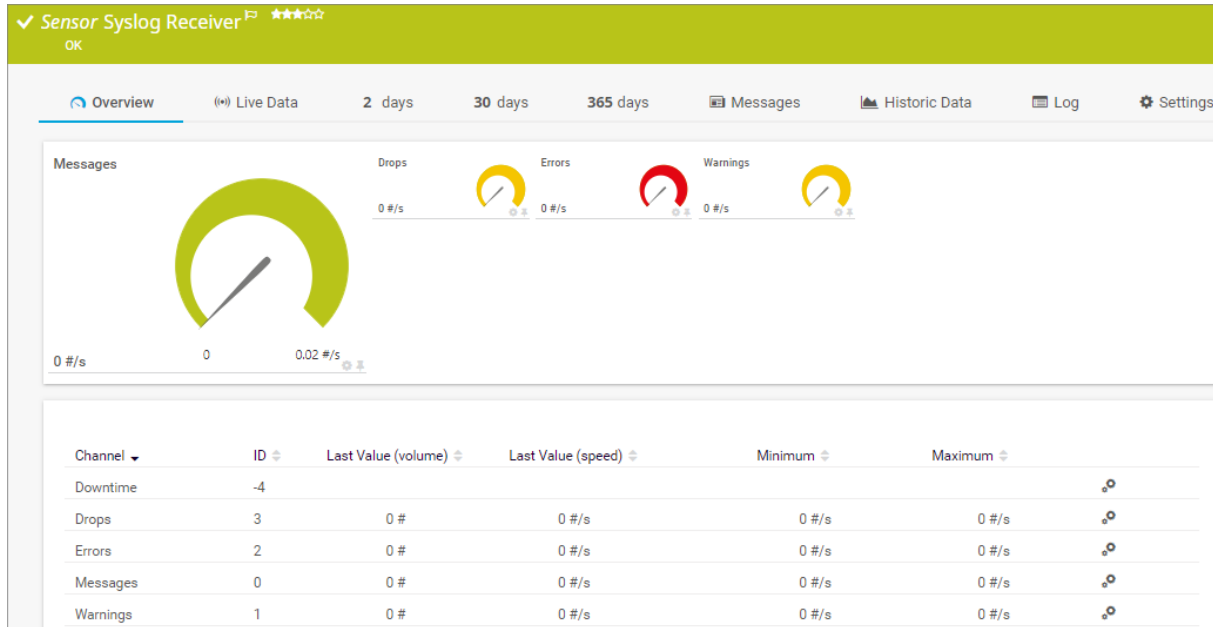
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.227 Syslog Receiver Sensor

The Syslog Receiver sensor receives and analyzes Syslog messages.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Syslog Receiver Sensor

Sensor in Other Languages

- Dutch: Syslog ontvanger
- French: Récepteur Syslog
- German: Syslog-Empfänger
- Japanese: Syslog レシーバー
- Portuguese: Destinatário de syslog
- Russian: Syslog
- Simplified Chinese: 系统日志接收程序
- Spanish: Receptor Syslog

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- This sensor only supports the User Datagram Protocol (UDP).

- If you do not add the sensor to a probe device but to a different device in PRTG, be careful with the configuration: Ensure that the IP address or Domain Name System (DNS) name of the parent device matches the proper sender. For example, if you want to receive messages from a storage area network (SAN), you might have to add a device to PRTG using the IP address of a specific array member that sends the messages. Providing a DNS name that points to the IP address of a whole group might not work for SANs.
- With the available filter options, you can individually define which types of messages the sensor considers for monitoring, and which messages it categorizes as warning or error messages. Depending on the filters, received messages are counted in the respective channels.
- Add this sensor to the probe device to receive all messages of the remote probe system.
- Add this sensor to a specific device to directly receive all messages from this device. This makes this sensor faster than when you use source filters.
- This sensor supports the IPv6 protocol.
- You cannot use this sensor in cluster mode. You can only set it up on a local probe or a remote probe but not on a cluster probe.
- For a general introduction to the receiver's configuration, see section [Monitoring Syslogs and SNMP Traps](#)⁴³²⁸.
- You can use specific placeholders in email [notification templates](#)⁴¹³⁸ to see the messages when you receive an email notification. See section [List of Placeholders for Notifications](#)⁴⁶⁶².
- The [sensor states](#)¹⁹⁷ of this sensor persist for one scanning interval only. After showing a Warning status or a Down status, and if there is no warning or error message in the following scanning interval, the sensor shows an Up status again. For a workaround, see the Knowledge Base: [How can I configure sensors using speed limits to keep the status for more than one interval?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#)³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ syslogsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.


Syslog Specific

Syslog Specific

Port **i** 514

Purge Messages After **i** 32 days

Syslog Specific

Setting	Description
Port	Enter the number of the port on which the sensor listens for Syslog messages. The default port is 514. Enter an integer value.  We recommend that you use the default value.
Purge Messages After	Define how long PRTG stores received Syslog messages for analysis. Select a period of time from the dropdown list.


Filter


For detailed information, see section [Filter Rules](#) ³³³⁷.


Filter


Filters are formulas using AND, OR, NOT, brackets and the following fields:

Field	Parameters	Examples
source[ip]	Enter a UDP source IP, IP range, or IP hostmask	source[10.0.23.50], source[10.0.23.10-50], source[10.0.23.10/24]
facility[number]	Enter a number or range of the facility code, between 0 and 23	facility[2], facility[5-7]
severity[number]	Enter a single number or range of the severity code, between 0 (Emergency) and 7 (Debug)	severity[4], severity[1-3]
hostname[text]	Enter the hostname string to match (exact, case sensitive)	hostname[www.paessler.com]
tag[text]	Enter the tag string to match (exact, case sensitive)	tag[su]
appname[text]	Enter the app name string to match (exact, case sensitive)	appname[myproc]
procid[text]	Enter the process ID string to match (exact, case sensitive)	procid[8710]
msgid[text]	Enter the message ID string to match (exact, case sensitive)	msgid[ID47]
message[parttext]	Enter a substring to match the message field (partial, case insensitive)	message[Error]
data[parttext] data[id,param] data[id,param,value]	Enter a substring to match on structured data as displayed in the table (partial, case sensitive); or enter an ID and a parameter (comma separated) to check if the parameter exists in the ID element, or enter an ID, a parameter, and a value (comma separated) to match on a structured data value (RFC 5424)	data[exampleSDID@32473], data[exampleSDID@32473, eventSource], data[exampleSDID@32473, eventSource, Application]

Include Filter  severity[0-6]

Exclude Filter 

Warning Filter  severity[4]

Error Filter  severity[0-3]

Syslog Specific

Setting	Description
Include Filter	Define if you want to filter Syslog messages. If you leave this field empty or use the keyword any , the sensor processes all data. To only include specific types of messages, define filters using a special syntax.
Exclude Filter	Define which types of Syslog messages the sensor discards and does not process. To exclude specific types of messages, define filters using a special syntax.
Warning Filter	<p>Define which types of Syslog messages count for the Warnings channel. To categorize received messages as warning messages, define filters using a special syntax.</p> <p>i The sensor collects messages until a scanning interval ends. As long as the scanning interval is running, the sensor does not change its status. By default, the sensor changes to the Warning status ^[197] after a scanning interval finishes and there was at least one warning message (and no error message) during this scanning interval. The sensor shows the Warning at least until the succeeding scanning interval finishes. If the sensor does not receive any warning or error message in this scanning interval, its status changes to the Up status again with the start of the next scanning interval.</p>
Error Filter	<p>Define which types of Syslog messages count for the Errors channel. To categorize received messages as error messages, define filters using a special syntax.</p> <p>i The sensor collects messages until a scanning interval ends. As long as the scanning interval is running, the sensor does not change its status. By default, the sensor changes to the Down status after a scanning interval finishes and there was at least one error message during this scanning interval. The sensor shows the Down status at least until the succeeding scanning interval finishes. If the sensor does not receive any warning or error message in this scanning interval, its status changes to the Up status again with the start of the next scanning interval.</p>




Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights


Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Debug Options

Debug Options

Result Handling ⓘ

Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result (recommended): Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\debug subfolder of the PRTG data directory on the probe system. This setting is for debugging purposes. <p>ⓘ Use with caution. We recommend that you only use this setting for a short time because it can create huge data files.</p>

Filter Rules for Syslog Messages

Filter rules are used for the include, exclude, warning, and error definition fields of the Syslog Receiver sensor. They are based on the following format:

```
field[filter]
```

You can use various filters suitable to your needs. Include and exclude filters define which messages to monitor. Warning and error filters define how to categorize received messages. Provide these filters in the sensor settings as formulas. Formulas are fields that you can combine with boolean operators ([AND](#), [OR](#), [NOT](#)) and brackets.

Field	Parameter	Example
source[ip]	Enter an IP address where the messages come from. IP masks and ranges are also possible.	<ul style="list-style-type: none"> ▪ source[10.0.23.50] ▪ source[10.0.23.10-50] ▪ source[10.0.23.10/24]
facility[number]	Enter any number or range from 0 to 23 specifying the program type that sends the message.	<ul style="list-style-type: none"> ▪ facility[2] ▪ facility[5-7] ▪ facility[5] OR facility[6]
severity[number]	Enter any number or range from 0 (emergency) to 7 (debug) specifying the message type.	<ul style="list-style-type: none"> ▪ severity[4] ▪ severity[1-3] ▪ severity[1] AND severity[2]

Field	Parameter	Example
hostname[text]	Enter any string that specifies the hostname of a device in the message.	hostname[www.example.com]
tag[text]	Enter any string that specifies the tag of a program or process in the message.	tag[su]
appname[text]	Enter any string that specifies the appname part of the message.	appname[myproc] appname[demo] AND msgid[m42]
procid[text]	Enter any string that specifies the process identifier part of the message.	procid[1860]
msgid[text]	Enter any string that specifies the message identifier part of the message.	msgid[ID47]
message[parttext]	Enter any string that specifies the message part of the message. (Any substring matches. This value is case insensitive.)	message[Error]
data[id,param,value]	This checks the SD-ID block of the message's structured data for a parameter matching the specified value.	data[exampleSDID@12345,eventSource,Application]
data[parttext]	This checks if the specified substring matches structured data as displayed in the corresponding table.	data[exampleSDID@1234]
data[id,param]	This checks if the parameter exists in the specified ID element.	data[exampleSDID@1234,eventSource]

i String parameters (except the substring in message) have to **exactly** match the particular parts of the message. They are case sensitive.

Messages Tab: Review and Analyze Syslog Messages

PRTG stores received Syslog messages as common files in the \Syslog Database subfolder of the PRTG data directory. To review and analyze all received messages, you can directly access the most recent data in a [table list](#)^[246] on the PRTG web interface. You can access this list via the sensor's Overview tab.

i Received Syslog messages are only shown in the table on the Overview tab after an (automatic) page refresh following a sensor scan. The default value for [auto refresh](#)^[4123] is 30 seconds.

For more details and further filter options, click the Messages tab of the Syslog Receiver sensor. You see all received messages in a table list. On the top, you have display filter options to drill down into the data for specific events of your interest. The filters are the same as those available in the sensor settings, but you can define them without using formulas. Provide the desired parameters and PRTG automatically loads the filtered list.


i You can automatically add a filter by clicking the content of a column.


Advanced Filter Settings

You can open advanced filter settings by clicking  in the Filter row. The Advanced Filter appears in a popup window. In the text field, you can define a filter using the syntax as specified in section [Filter Rules for Syslog Messages](#) ³³³⁷.

If you provided filter parameters on the Messages tab, the advanced filter already includes them as a corresponding formula with the correct syntax. You can adjust this filter to your needs. You can also copy the automatically created and manually adjusted formula for usage in the filter fields of the sensor settings.

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Drops	The number of dropped packets per second on the syslog port
Errors	The number of messages categorized as "error" per second
Messages	The number of received Syslog messages per second  This channel is the primary channel by default.
Warnings	The number of messages categorized as "warning" per second

More

KNOWLEDGE BASE

What placeholders can I use with PRTG?

- <https://kb.paessler.com/en/topic/373>

How can I configure sensors using speed limits to keep the status for more than one interval?

- <https://kb.paessler.com/en/topic/73212>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

VIDEO TUTORIAL





Part 7: Device and Sensor Setup | 8 Sensor Settings
227 Syslog Receiver Sensor

SNMP Trap Receiver and Syslog Receiver sensors

- <https://www.paessler.com/learn/videos/syslog-receiver>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

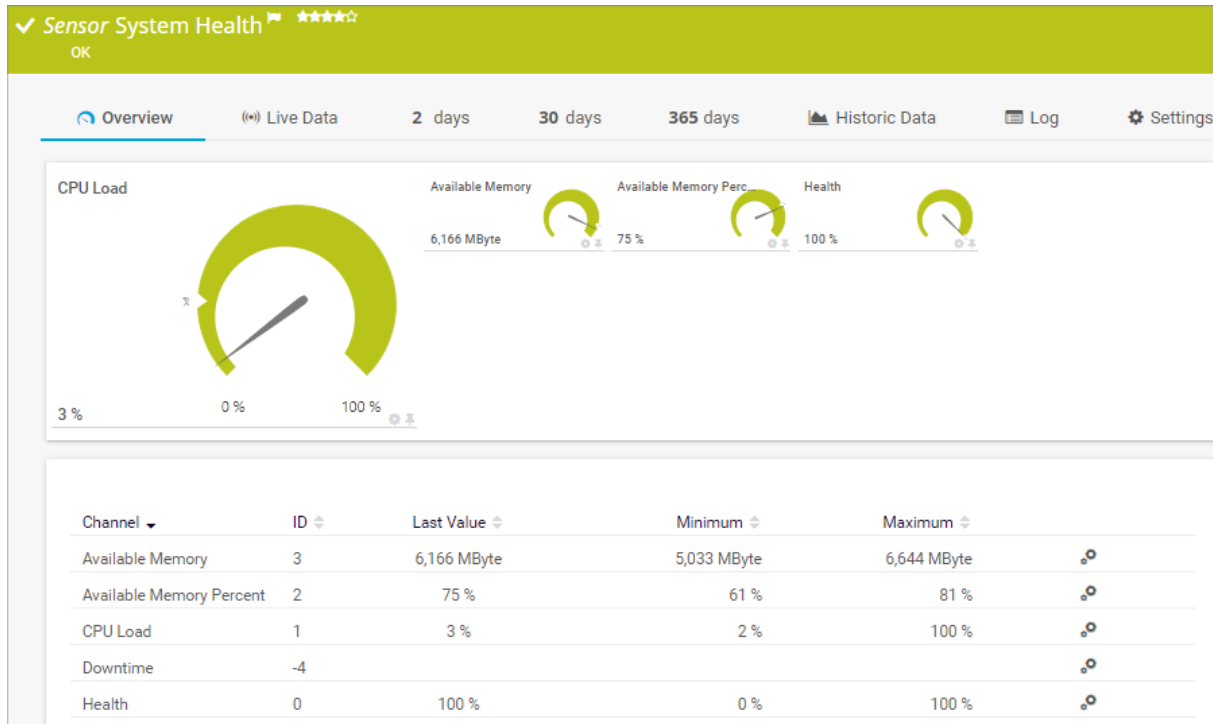
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.228 System Health Sensor

The System Health sensor monitors internal PRTG parameters. It shows the status of the probe system. It checks various system parameters that can affect the quality of the monitoring results.

i PRTG automatically creates this sensor. You cannot delete it.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



System Health Sensor

Sensor in Other Languages

- Dutch: System Status
- French: État du système
- German: Systemzustand
- Japanese: システム正常性
- Portuguese: Funcionamento do sistema
- Russian:
- Simplified Chinese: 系统健康状况
- Spanish: Salud del sistema

Remarks

- This sensor has a very low performance impact.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ systemhealthsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display

Sensor Display

Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click under the corresponding setting name to disable the inheritance and to display its options.



For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval


Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Access Rights

Click  to interrupt the [inheritance](#).

Access Rights

inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited



Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

Channel Unit Configuration

 inherit from  Root

Channel Unit Types ¹

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
sec... ▼	
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Available Memory	The amount of free memory available on the system. This value should not fall below 500 MB. This way, PRTG can still request resources during report generation or auto-discoveries, for example.
Available Memory Percent	The available memory in percent
CPU Load	<p>The CPU load in percent on the probe system. Extensive CPU load can lead to false, incomplete, and incorrect monitoring results. This value should usually stay below 50%.</p> <p>i This channel is the primary channel by default.</p>
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Health	The sum of the probe state as a value between 100% (healthy) and 0% (failing). Investigate frequent or repeated health values below 100%.

More

■ KNOWLEDGE BASE





Part 7: Device and Sensor Setup | 8 Sensor Settings
228 System Health Sensor

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

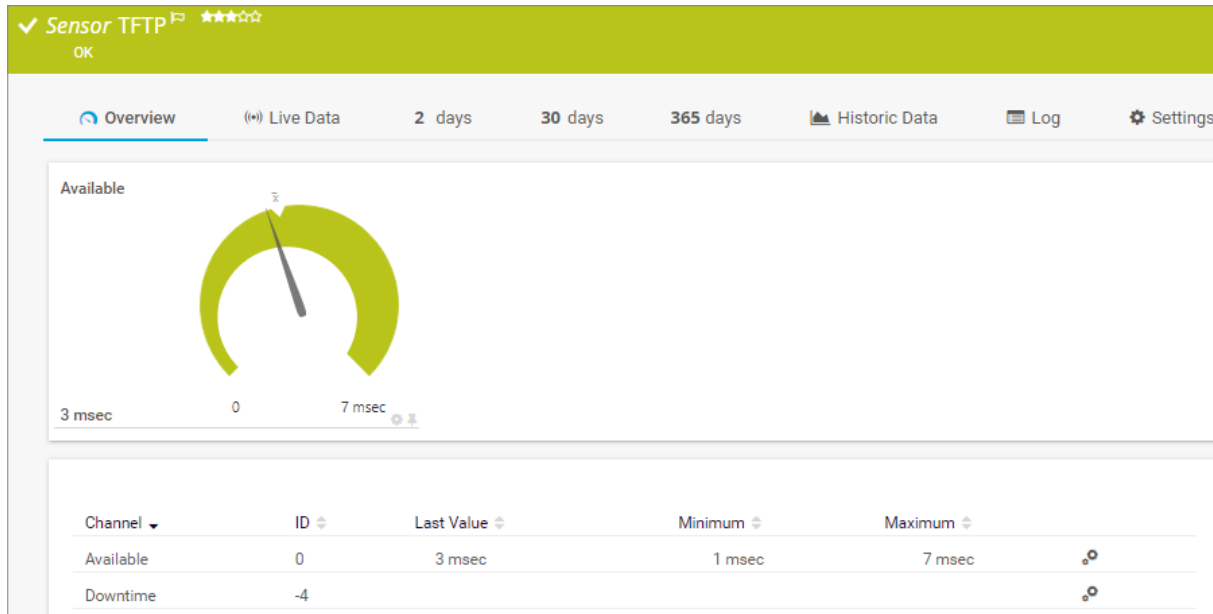
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.229 TFTP Sensor

The TFTP sensor monitors a Trivial File Transfer Protocol (TFTP) server and checks if a certain file is available for download.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



TFTP Sensor

Sensor in Other Languages

- Dutch: TFTP
- French: TFTP
- German: TFTP
- Japanese: TFTP
- Portuguese: TFTP
- Russian: TFTP
- Simplified Chinese: TFTP
- Spanish: TFTP

Remarks

- This sensor has a medium performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[409], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> trivialftpsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Specific

Sensor Specific

	Timeout (Sec.) i	5
	Port i	69
	File Name i	tftp.c

Sensor Specific




Setting	Description
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>
Port	<p>Enter the number of the port that the TFTP service runs on. The sensor connects to this port. Enter an integer value.</p>
File Name	<p>Enter the name of the file that this sensor checks. If the file is not available on the server, the sensor shows the Down status¹⁹⁷. Enter a string.</p>

Sensor Display


Sensor Display

Primary Channel i	Downtime
Graph Type i	<input checked="" type="radio"/> Show channels independently (default) <input type="radio"/> Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**


Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Available	The response time in milliseconds (msec)  This channel is the primary channel by default.
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

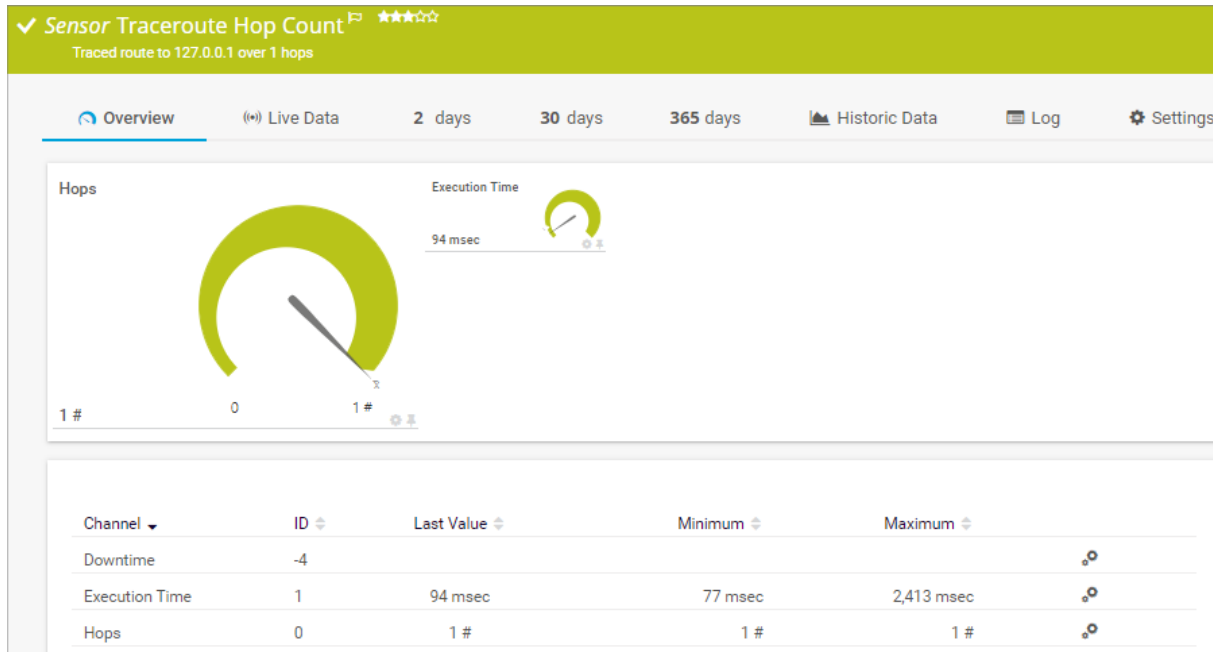
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.230 Traceroute Hop Count Sensor

The Traceroute Hop Count sensor traces the number of hops from the probe system to the IP Address/DNS Name of the parent device.

i If the number of hops (the route) changes, you can additionally define a different [sensor status](#).

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Traceroute Hop Count Sensor

Sensor in Other Languages



- Dutch: Traceroute Hop Count
- French: Nombre de sauts Traceroute
- German: Traceroute Hop-Anzahl
- Japanese: Traceroute ホップ数
- Portuguese: Contagem de hops do rastreo de rotas
- Russian: -
- Simplified Chinese: 跟踪路由跳跃计数
- Spanish: Cuenta de hops de traceroute

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires .NET 4.7.2 or later on the probe system. If the sensor shows the error PE087, additionally install .NET 3.5 on the probe system.

- We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
- This sensor supports the IPv6 protocol.

Detailed Requirements

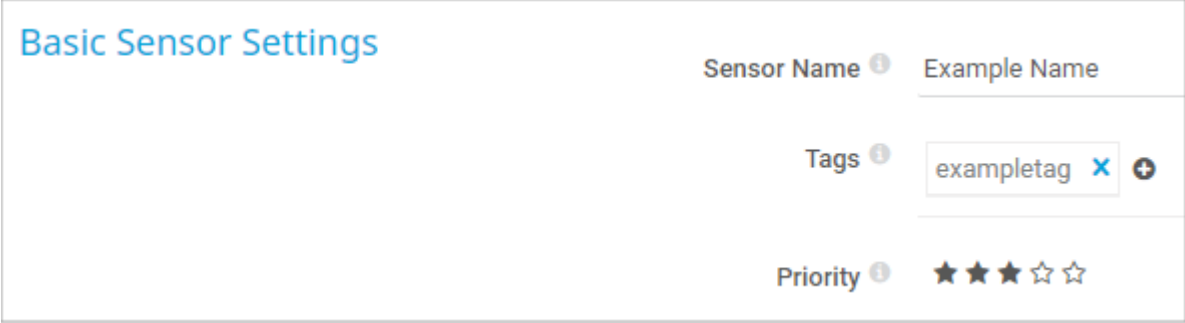
Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.


Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.



The screenshot shows the 'Basic Sensor Settings' dialog. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus icon, and a 'Priority' field with five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p> If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Parent Tags	Shows tags ^[145] that the sensor inherits ^[145] from its parent device ^[140] , parent group ^[139] , and parent probe ^[139] . <i>i</i> This setting is for your information only. You cannot change it.
Tags	Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145] . <i>i</i> It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). <i>i</i> For performance reasons, it can take some minutes until you can filter for new tags that you added. The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor: <ul style="list-style-type: none"> ▪ ptfsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

Sensor Settings

Sensor Settings

If Route Changes *i*

Ignore
 Set sensor to warning status
 Set sensor to down status

Sensor Settings

Setting	Description
If Route Changes	Define what to do if the route has changed since the last check: <ul style="list-style-type: none"> ▪ Ignore: Do not perform any action. ▪ Set sensor to warning status: Show the Warning status^[197] if the route changes. ▪ Set sensor to down status: Show the Down status if the route changes.

Debug Options

Debug Options

Result Handling ⓘ
 Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
Execution Time	The execution time in milliseconds (msec)
Hops	The number of hops  This channel is the primary channel by default.

More

KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

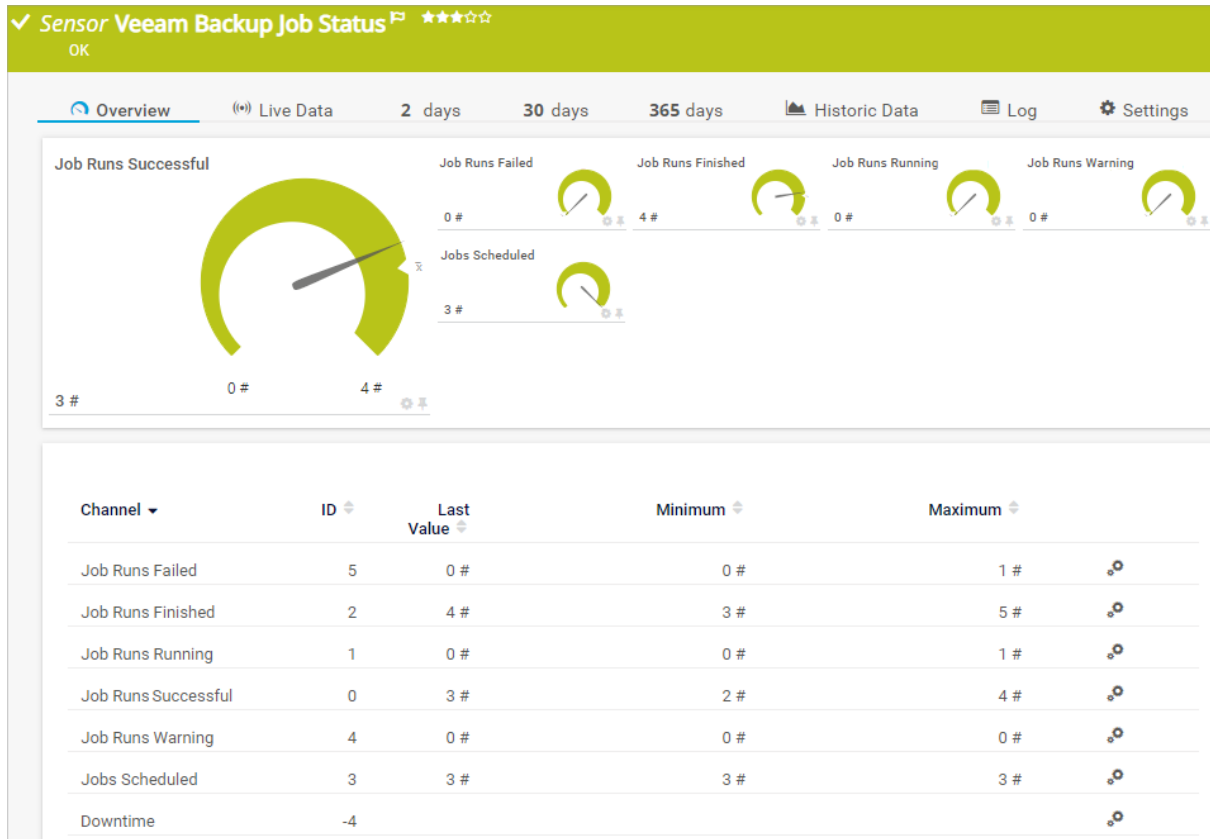
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.231 Veeam Backup Job Status Sensor

The Veeam Backup Job Status sensor monitors the status of all backup job runs on the Veeam Backup Enterprise Manager in the last 24 hours.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Veeam Backup Job Status Sensor

Sensor in Other Languages

- Dutch: Veeam Backup Job Status
- French: Veeam Backup Job Status
- German: Veeam Backup Job Status
- Japanese: Veeam Backup Job Status
- Portuguese: Veeam Backup Job Status
- Russian: Veeam Backup Job Status
- Simplified Chinese: Veeam Backup Job Status
- Spanish: Veeam Backup Job Status

Remarks

- This sensor requires [credentials for Veeam](#) in settings that are higher in the [object hierarchy](#), for example, in the settings of the parent device.

- This sensor requires an installation of the [Veeam Backup Enterprise Manager 10](#) with the [Enterprise Plus](#) license.
- This sensor only supports version [1.5](#) of the Representational State Transfer (REST) application programming interface (API).
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p>

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ veeam ▪ veeambackup ▪ veeamenterprisemanager
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Display


Sensor Display

Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.



Debug Options

Debug Options


Result Handling 

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval


Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Job Runs Failed	The number of failed job runs
Job Runs Finished	<p>The number of finished job runs</p> <p>i The Job Runs Finished channel shows the total number of all job runs in a warning state, successful job runs, and failed job runs.</p>
Job Runs Running	The number of running job runs
Job Runs Successful	<p>The number of successful job runs</p> <p>i This channel is the primary channel by default.</p>
Job Runs Warning	The number of job runs in a warning state
Jobs Scheduled	The number of scheduled backup jobs

More





KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

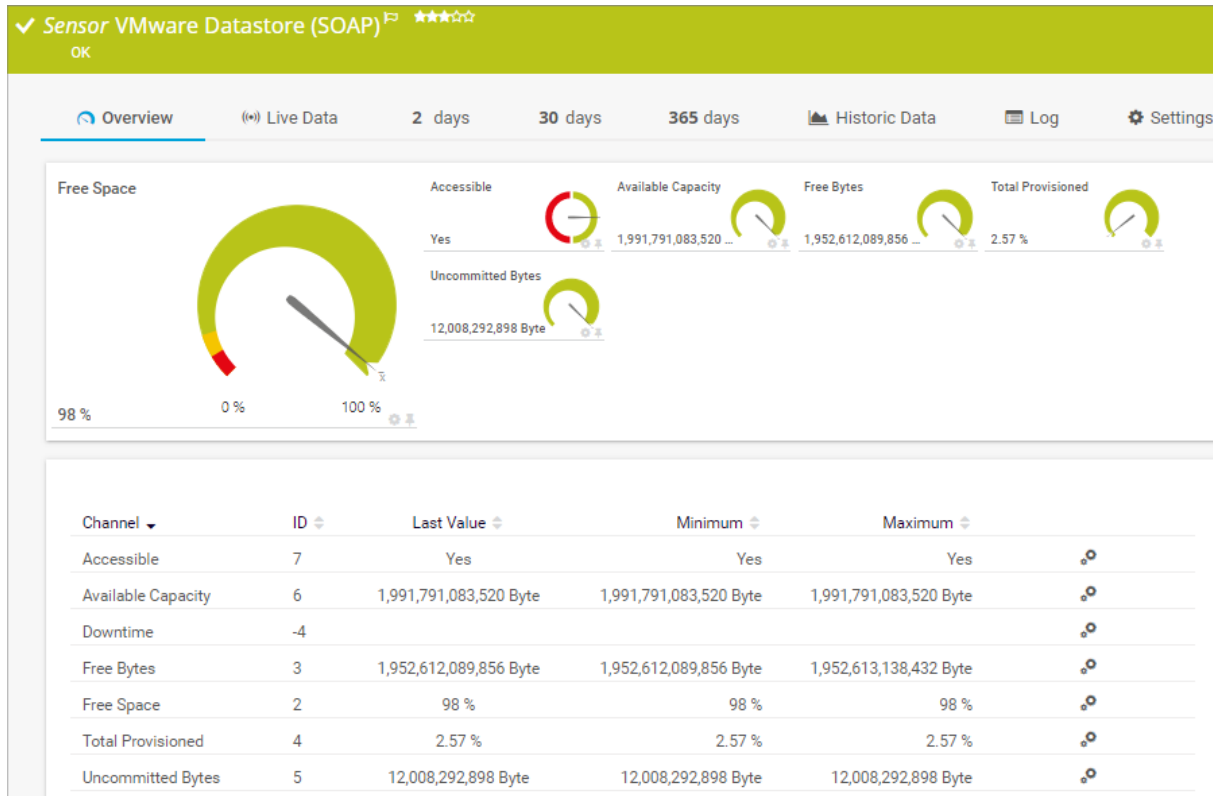
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.232 VMware Datastore (SOAP) Sensor

The VMware Datastore (SOAP) sensor monitors the disk usage of a VMware datastore using the Simple Object Access Protocol (SOAP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



VMware Datastore (SOAP) Sensor

Sensor in Other Languages

- Dutch: VMware Datastore (SOAP)
- French: VMware Datastore (SOAP)
- German: VMware Datastore (SOAP)
- Japanese: VMware Datastore(SOAP)
- Portuguese: VMware Datastore (SOAP)
- Russian: VMware (SOAP)
- Simplified Chinese: VMware 数据存储 (SOAP)
- Spanish: Almacén de datos VMware (SOAP)

Remarks

- The parent device must be a VMware ESXi server version 5.2 or later or vCenter.
- This sensor requires [credentials for VMware/XenServer](#) in the settings of the parent device. Ensure that you enter a user with sufficient access rights to obtain statistics (read-only usually works).

- This sensor requires .NET 4.7.2 or later on the probe system.
 - We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
 - This sensor supports the IPv6 protocol.
 - This sensor has a very low performance impact.
 - This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#) ⁴⁴⁸⁵.
 - This sensor has predefined limits for several metrics. You can individually change these limits in the channel settings. For detailed information about channel limits, see section [Channel Settings](#) ³⁹⁷⁷.
 - See the Knowledge Base: [I cannot add VMware sensors because of "wrong" password although it is correct. What can I do?](#)
 - See the Knowledge Base: [Why are my VMware sensors not working after upgrading to VCSA 6.5 U1?](#)
- i** This sensor supersedes the outdated SSH VMWare ESX(i) Disk sensor. We recommend that you use this new VMware Datastore (SOAP) sensor to monitor VMware datastores.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i If the framework is missing, you cannot create this sensor.</p> <p>■ For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Settings on VMware Host System

If you set up this sensor on different probes (for example, when using [remote probes](#) ⁴⁵⁰³ or when running a [cluster](#) ¹³⁵¹), you might need to change the settings of your VMware host so that it accepts more incoming connections. Otherwise, you might get connection timeouts when running plenty of VMware sensors with a short scanning interval.

- For details about this setting, see the Knowledge Base: [How can I increase the connection limit on VMware systems?](#)

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Datastore Settings

Setting	Description
Datstores	<p>Select the datastores that you want to monitor. PRTG creates one sensor for each datastore that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p>

Setting	Description
	<p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> vmwaredatastoreexternsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Datastore Settings

Datastore Settings

Managed Object Identifier (MOID) ⓘ XXXXXXXXXX



Result Handling ⓘ

Discard result

Store result


Datastore Settings


Setting	Description
Managed Object Identifier (MOID)	<p>Shows the managed object identifier of the datastore that this sensor monitors.</p> <p>ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result.

Setting	Description
	<ul style="list-style-type: none"> Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>




Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type 
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



For more information, see section [Inheritance of Settings](#).


Scanning Interval

Click  to interrupt the inheritance.


Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/ sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Accessible	<p>The accessibility of the datastore</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Yes ▪ Down status: No

Channel	Description
Available Capacity	The available capacity in bytes (the physically or virtually available size of the datastore)
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Bytes	The free space in bytes (the disk space that is not used by virtual machines (VM). Used disk space can be either thick-provisioned or used by thin-provisioned virtual disks)
Free Space	The free space in percent (the disk space that is not used by VMs. Used disk space can be either thick-provisioned or used by thin-provisioned virtual disks)  This channel is the primary channel by default.
Total Provisioned	The total provisioned disk space in percent (the sum of all potentially used disk space of thin-provisioned and thick-provisioned VM hard drives, that is, the uncommitted bytes plus used bytes)
Uncommitted Bytes	The uncommitted bytes (the disk space that is provisioned for thin-provisioned VMs but not used yet)

More

■ KNOWLEDGE BASE

I cannot add VMware sensors because of "wrong" password although it is correct. What can I do?

- <https://kb.paessler.com/en/topic/66794>

Why are my VMware sensors not working after upgrading to VCSA 6.5 U1?

- <https://kb.paessler.com/en/topic/78274>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

How can I increase the connection limit on VMware systems? PE121

- <https://kb.paessler.com/en/topic/30643>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Monitoring VMware ESXi 5.5 does not work. What can I do?

- <https://kb.paessler.com/en/topic/59173>





For which sensor types do you recommend Windows Server 2012 R2 or later and why?

Part 7: Device and Sensor Setup | 8 Sensor Settings
232 VMware Datastore (SOAP) Sensor

- <https://kb.paessler.com/en/topic/64331>

Sensor Settings Overview

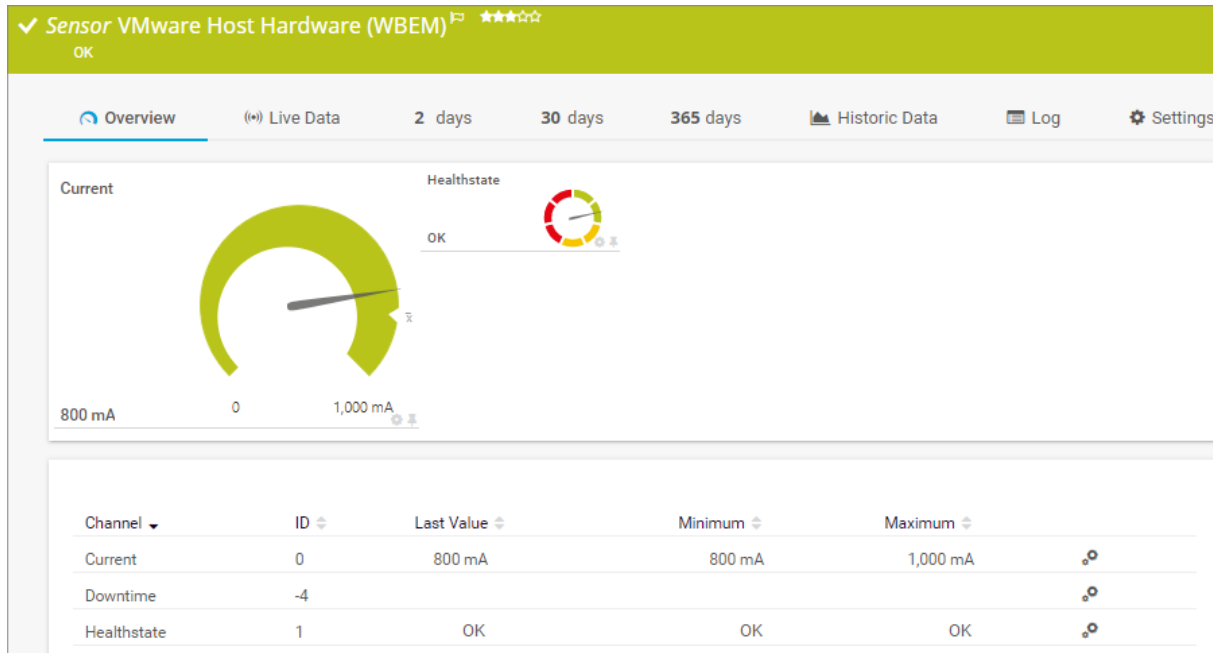
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.233 VMware Host Hardware (WBEM) Sensor

The VMware Host Hardware (WBEM) sensor monitors information about the hardware of an ESXi server using Web-based Enterprise Management (WBEM).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



VMware Host Hardware (WBEM) Sensor

Sensor in Other Languages

- Dutch: VMware Host Hardware (WBEM)
- French: Matériel hôte VMware (WBEM)
- German: VMware Host Hardware (WBEM)
- Japanese: VMware ホストハードウェア (WBEM)
- Portuguese: VMware Hardware de host (WBEM)
- Russian: VMware (WBEM)
- Simplified Chinese: VMware 主机硬件 (WBEM)
- Spanish: Hardware de host VMware (WBEM)

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor [requires](#) that the CIM interface is enabled on the ESXi host. On ESXi 6.5 and later, you have to manually enable CIM.
- This sensor requires [credentials for Linux/Solaris/macOS \(SSH/WBEM\) systems](#) in the settings of the parent device.

- The parent device must be a VMware ESXi server version 5.2 or later.
- We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).
- See the Knowledge Base: [Why are my VMware sensors not working after upgrading to VCSA 6.5 U1?](#)

Detailed Requirements

Requirement	Description
Enabled CIM Interface on ESXi Host	<p>To access the ESXi host and retrieve monitoring data via WBEM, the CIM interface must be enabled on the ESXi host. On ESXi 6.5, CIM is disabled by default, so you have to manually activate it.</p> <p>■ For details, see the Knowledge Base: How do I enable the CIM interface on VMware ESXi 6.5?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

ESXi Server Elements

Setting	Description
Hardware Elements	<p>Select the hardware elements that you want to monitor. PRTG creates one sensor for each element that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag ✕ +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ esxshealthsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

ESXi Server Elements

ESXi Server Elements

Hardware Element ⓘ *Power Supply 1 Current 1*

This sensor monitors the health of an element as reported by the ESXi server. The sensor can automatically change to a Warning status when the ESXi server returns Degraded/Warning for this particular element. It can change to a Down status when the server reports any of the following errors: Minor / Major / Critical / Non recoverable.

Automatic Sensor Status ⓘ

Set sensor to warning or down status
 Report the current reading

Result Handling ⓘ

Discard result
 Store result

ESXi Server Elements

Setting	Description
Hardware Element	Shows the hardware element that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Automatic Sensor Status	Define if the sensor changes its status ^[197] depending on the health status reading: <ul style="list-style-type: none"> ▪ Set sensor to warning or down status: Set the sensor to the Warning or the Down status when the server returns respective values. The sensor also changes to the Down status if the connection to the server fails. ▪ Report the current reading: Never change the sensor's status dependent on the values returned by the server. The sensor only changes to the Down status if the connection to the server fails.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ^[4526] on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click ⓘ to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Current	The current in milliampere (mA)
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Healthstate	<p>The health status</p> <ul style="list-style-type: none"> ▪ Up status ¹⁹⁷: OK Unknown ▪ Warning status: Degraded, Minor ▪ Down status: Critical, Major, Non Recoverable Error
Power	The power consumption in watts (W)
Rotational Speed	The fan revolutions per minute (RPM)
Temperature	The temperature

More

KNOWLEDGE BASE

Why are my VMware sensors not working after upgrading to VCSA 6.5 U1?

- <https://kb.paessler.com/en/topic/78274>

How do I enable the CIM interface on VMware ESXi 6.5?





- <https://kb.paessler.com/en/topic/76255>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

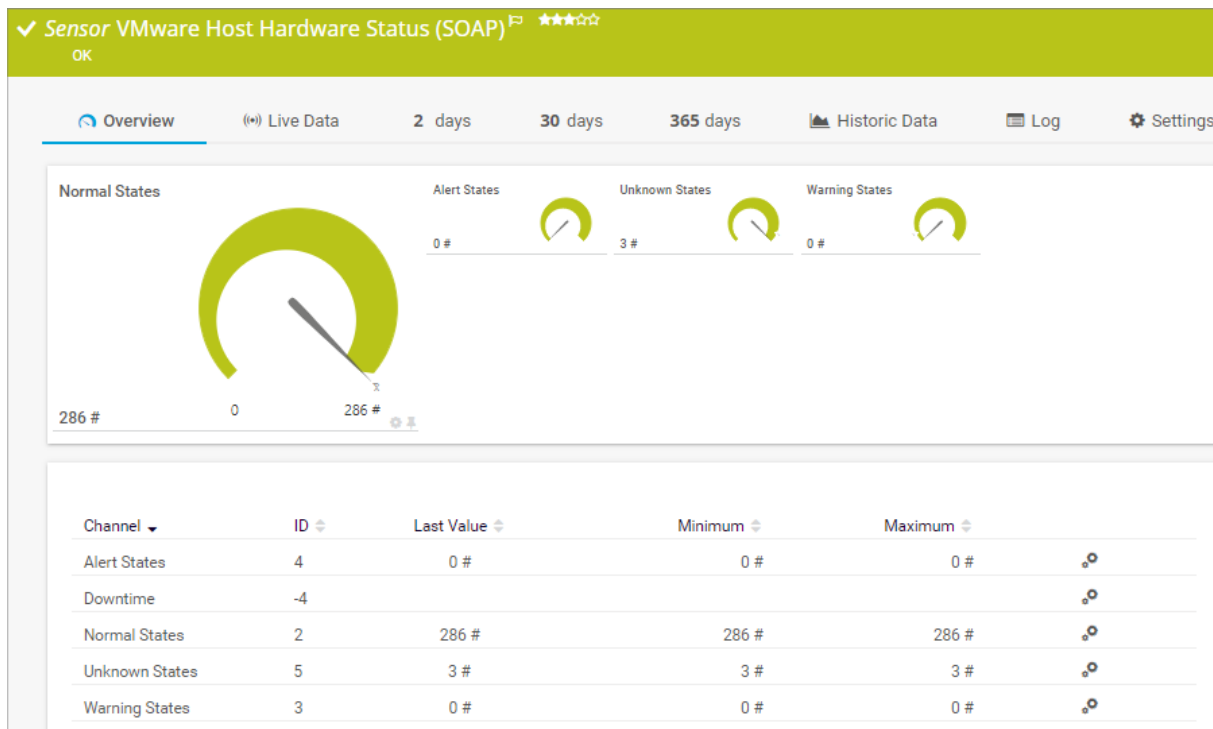
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.234 VMware Host Hardware Status (SOAP) Sensor

The VMware Host Hardware Status (SOAP) sensor monitors the hardware status of a VMware host server using the Simple Object Access Protocol (SOAP). It gives you a general status overview of the host.

i The sensor also shows any states other than **normal** in the sensor message.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



VMware Host Hardware Status (SOAP) Sensor

Sensor in Other Languages



- Dutch: VMware Host Hardware Status (SOAP)
- French: État du matériel du serveur hôte VMware (SOAP)
- German: VMware Hostserver Hardware-Zustand (SOAP)
- Japanese: VMware ホストハードウェアの状態 (SOAP)
- Portuguese: VMware Status do hardware de host (SOAP)
- Russian: VMware (SOAP)
- Simplified Chinese: VMware 主机硬件状态 (SOAP)
- Spanish: Estado de hardware de VMware Host (SOAP)

Remarks

- This sensor requires .NET 4.7.2 or later on the probe system.


- This sensor requires [credentials for VMware/XenServer](#) ^[455] in the settings of the parent device. Ensure that you enter a user with sufficient access rights to obtain statistics (read-only usually works).
- The parent device must be a VMware ESXi server version 5.2 or later. We recommend that you do not use this sensor on your vCenter. Reliable hardware information can only be provided when this sensor is created on your physical host server as parent device.
- We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- This sensor only shows items that report an actual status, so you might see more "sensors" in your vSphere client than the number of states available in the channels of this sensor
- See the Knowledge Base: [I cannot add VMware sensors because of "wrong" password although it is correct. What can I do?](#)
- See the Knowledge Base: [Why are my VMware sensors not working after upgrading to VCSA 6.5 U1?](#)

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Settings on VMware Host System

If you set up this sensor on different probes (for example, when using [remote probes](#) ^[450] or when running a [cluster](#) ^[135]), you might need to change the settings of your VMware host so that it accepts more incoming connections. Otherwise, you might get connection timeouts when running plenty of VMware sensors with a short scanning interval.

-  For details about this setting, see the Knowledge Base: [How can I increase the connection limit on VMware systems?](#)

Add Sensor

The [Add Sensor](#) ^[36] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

-  The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

VMware Host Settings

Setting	Description
Host Servers	<p>Select the host servers that you want to monitor. PRTG creates one sensor for each host server that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag' and a plus sign, and a 'Priority' field with five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ esxserverhosthealthsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

VMware Host Settings

VMware Host Settings

Managed Object Identifier (MOID) **i** [Redacted]

Known Warnings **i**







Known Errors **i**

Handling of Unknown States **i** Show unknown states (default)
 Do not show unknown states

Result Handling **i** Discard result
 Store result

VMware Host Settings

Setting	Description
Managed Object Identifier (MOID)	<p>Shows the managed object identifier of the host that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Known Warnings	<p>Enter one or more warning messages from the VMware host that you want to ignore. Use semicolons (;) as separators, for example, Power Supply 7;Power Supply 8. Enter a string or leave the field empty.</p>

Setting	Description
	<p> Warning messages that you enter do not affect the sensor status¹⁹⁷.</p> <p> We strongly recommend that you use this filter for known issues only. For example, for states that systems return because of errors in the vendors' CIM extensions. Because of this, the sensor might never show the Up status although the vSphere client does not show any warnings.</p>
Known Errors	<p>Enter one or more error messages from the VMware host that you want to ignore. Use semicolons (;) as separators, for example, Power Supply 7;Power Supply 8. Enter a string or leave the field empty.</p> <p> Error messages that you enter do not affect the sensor status.</p> <p> We strongly recommend that you use this filter for known issues only. For example, for states that systems return because of errors in the vendors' CIM extensions. Because of this, the sensor might never show the Up status although the vSphere client does not show any errors.</p>
Handling of Unknown States	<p>Define the sensor behavior when the vSphere client reports unknown states:</p> <ul style="list-style-type: none"> ▪ Show unknown states (default): Show unknown states in the status message and set the sensor to the Warning status. ▪ Do not show unknown states: Do not show unknown states in the status message and do not change the sensor status.
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p> In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click ⓘ to interrupt the [inheritance](#).

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>For more details on access rights, see section Access Rights Management.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Alert States	The total number of items in the alert status as the vSphere client reports
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Normal States	<p>The total number of items in the normal status as the vSphere client reports</p> <p>i This channel is the primary channel by default.</p>
Unknown States	The total number of items in the unknown status as the vSphere client reports
Warning States	The total number of items in the warning status as the vSphere client reports

More

KNOWLEDGE BASE

I cannot add VMware sensors because of "wrong" password although it is correct. What can I do?

- <https://kb.paessler.com/en/topic/66794>

Why are my VMware sensors not working after upgrading to VCSA 6.5 U1?

- <https://kb.paessler.com/en/topic/78274>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

How can I increase the connection limit on VMware systems? PE121

- <https://kb.paessler.com/en/topic/30643>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Monitoring VMware ESXi 5.5 does not work. What can I do?





- <https://kb.paessler.com/en/topic/59173>

For which sensor types do you recommend Windows Server 2012 R2 or later and why?

- <https://kb.paessler.com/en/topic/64331>

Sensor Settings Overview

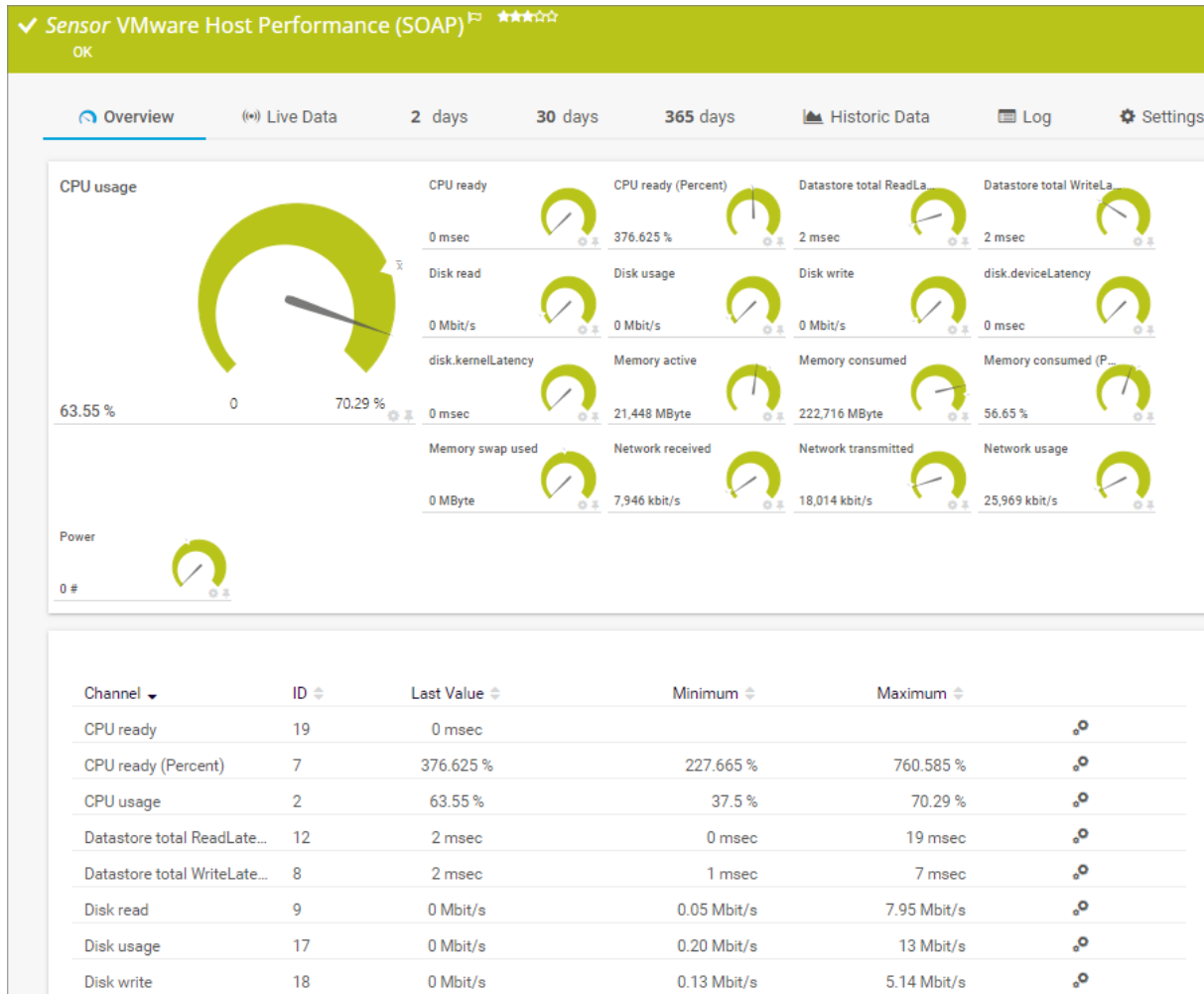
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.235 VMware Host Performance (SOAP) Sensor

The VMware Host Performance (SOAP) sensor monitors a VMware host server using the Simple Object Access Protocol (SOAP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



VMware Host Performance (SOAP) Sensor



Sensor in Other Languages

- Dutch: VMware Host Prestaties (SOAP)
- French: Performances de l'hôte VMware (SOAP)
- German: VMware Hostserver Leistung (SOAP)
- Japanese: VMware ホストパフォーマンス (SOAP)
- Portuguese: VMware Performance do host (SOAP)
- Russian: VMware (SOAP)
- Simplified Chinese: VMware 主机性能 (SOAP)
- Spanish: Rendimiento de VMware Host (SOAP)

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- This sensor requires .NET 4.7.2 or later on the probe system.
- The parent device must be a VMware ESXi server version 5.2 or later. We recommend that you do not use this sensor on your vCenter. Reliable hardware information can only be provided when this sensor is created on your physical host server as parent device.
- This sensor requires [credentials for VMware/XenServer](#)^[455] in the settings of the parent device. Ensure that you enter a user with sufficient access rights to obtain statistics (read-only usually works).
- We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [I cannot add VMware sensors because of "wrong" password although it is correct. What can I do?](#)
- See the Knowledge Base: [Why are my VMware sensors not working after upgrading to VCSA 6.5 U1?](#)

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Settings on VMware Host System

If you set up this sensor on different probes (for example, when using [remote probes](#)^[4503] or when running a [cluster](#)^[135]), you might need to change the settings of your VMware host so that it accepts more incoming connections. Otherwise, you might get connection timeouts when running plenty of VMware sensors with a short scanning interval.

- For details about this setting, see the Knowledge Base: [How can I increase the connection limit on VMware systems?](#)

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> esxserverhostsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

VMware Host Settings

VMware Host Settings

Managed Object Identifier (MOID) ⓘ XXXXXXXXXX

Result Handling ⓘ

Discard result

Store result

VMware Host Settings

Setting	Description
Managed Object Identifier (MOID)	Shows the managed object identifier of the host that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ

Show channels independently (default)


Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels

Setting	Description
	<p>are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval **i** 60 seconds

 inherit from  Root

If a Sensor Query Fails **i** Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds

Setting	Description
	<ul style="list-style-type: none"> ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule **None**

Maintenance Window **Do not set up a one-time maintenance window**
 Set up a one-time maintenance window

Dependency Type **Use parent**
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

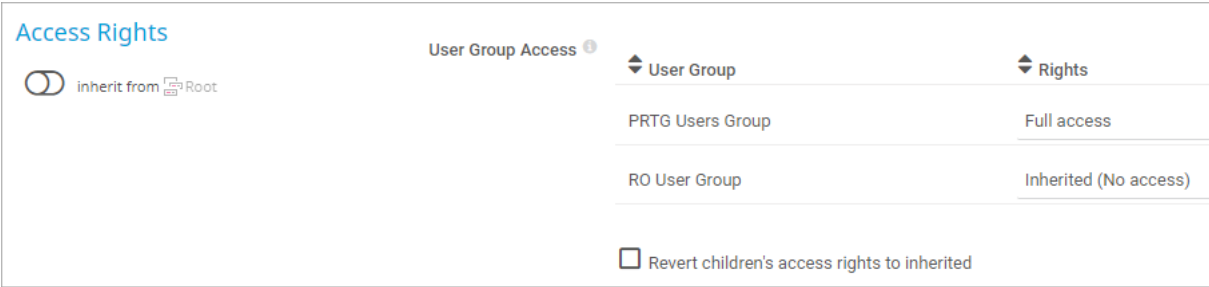
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>


Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights

User Group Access ⓘ

inherit from  Root

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**


Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU Ready (Percent)	The CPU readiness in percent
CPU Usage	The CPU usage in percent  This channel is the primary channel by default.
Datastore Total ReadLatency	The datastore total read latency in milliseconds (msec)
Datastore Total WriteLatency	The datastore total write latency in msec
Disk Read	The disk read speed in bytes per second
Disk Usage	The disk usage per second
Disk Write	The disk write speed in bytes per second
Disk.DeviceLatency	The disk device latency in msec
Disk.KernelLatency	The disk kernel latency in msec
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Memory Active	The active memory in bytes
Memory Consumed	The consumed memory in bytes
Memory Consumed (Percent)	The memory consumed in percent
Memory Swap Used	The used memory swap
Network Received	The received bytes per second
Network Transmitted	The transmitted bytes per second
Network Usage	The total network usage in bytes per second
Power	The power status

More

KNOWLEDGE BASE

I cannot add VMware sensors because of "wrong" password although it is correct. What can I do?

- <https://kb.paessler.com/en/topic/66794>

Why are my VMware sensors not working after upgrading to VCSA 6.5 U1?

- <https://kb.paessler.com/en/topic/78274>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

How can I increase the connection limit on VMware systems? PE121

- <https://kb.paessler.com/en/topic/30643>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Monitoring VMware ESXi 5.5 does not work. What can I do?





- <https://kb.paessler.com/en/topic/59173>

For which sensor types do you recommend Windows Server 2012 R2 or later and why?

- <https://kb.paessler.com/en/topic/64331>

Sensor Settings Overview

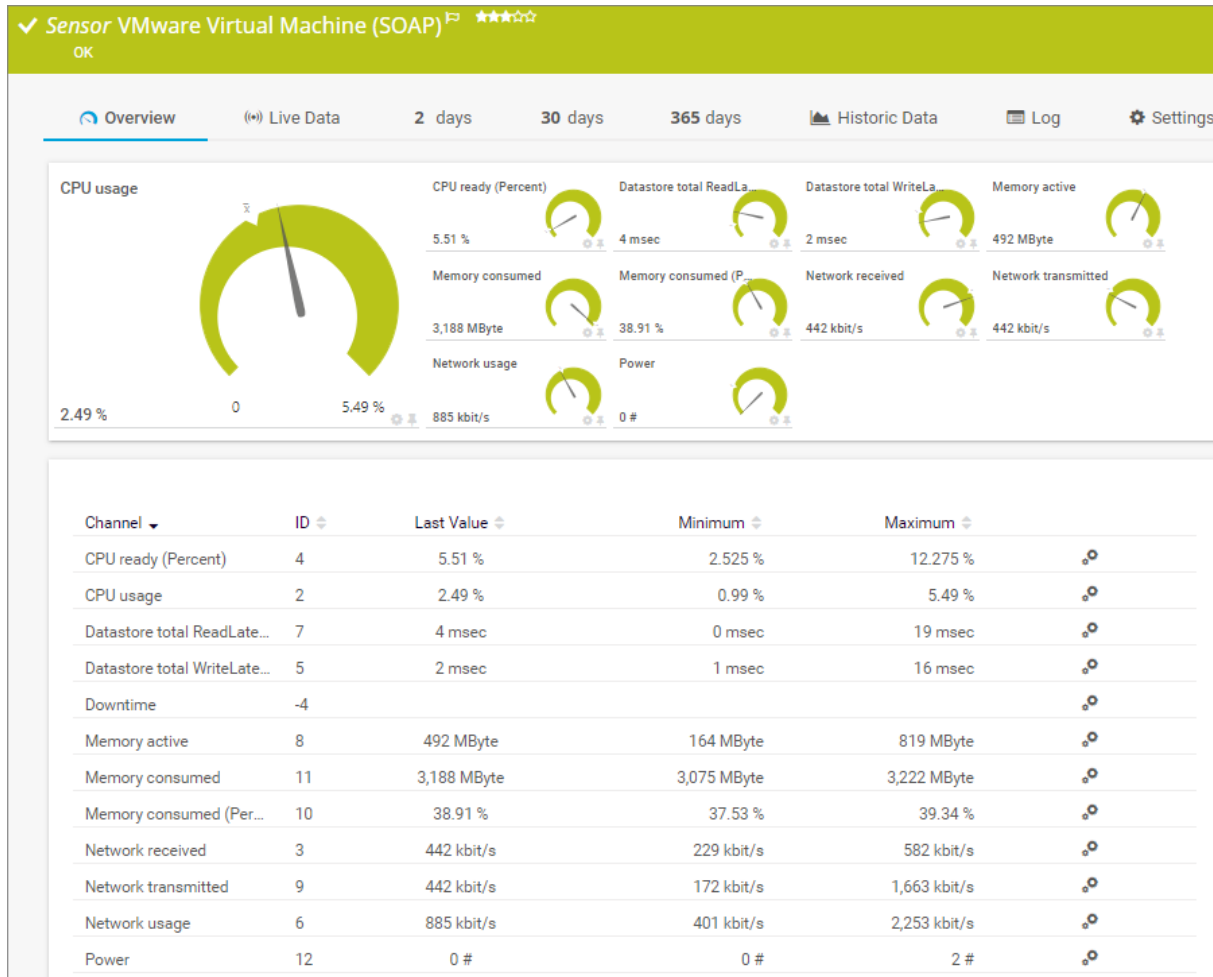
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.236 VMware Virtual Machine (SOAP) Sensor

The VMware Virtual Machine (SOAP) sensor monitors a virtual machine (VM) on a VMware host server using the Simple Object Access Protocol (SOAP).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



VMware Virtual Machine (SOAP) Sensor



Sensor in Other Languages

- Dutch: VMware Virtuele Machine (SOAP)
- French: Machine virtuelle VMware (SOAP)
- German: VMware Virtual Machine (SOAP)
- Japanese: VMware 仮想マシン (SOAP)
- Portuguese: VMware Máquina virtual (SOAP)
- Russian: VMware (SOAP)
- Simplified Chinese: VMware 虚拟机 (SOAP)
- Spanish: Máquina virtual VMware (SOAP)

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor requires [credentials for VMware/XenServer](#) in the settings of the parent device. Ensure that you enter a user with sufficient access rights to obtain statistics (read-only usually works).
- We recommend that you use vCenter as parent device. If the monitored VM changes the host server via vMotion, PRTG can still continue monitoring. The sensor can monitor VMware ESXi server version 5.2 or later.
- We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
- For VMware virtual machines, disk usage channels are only available as of virtual hardware version 8.
- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [I cannot add VMware sensors because of "wrong" password although it is correct. What can I do?](#)
- See the Knowledge Base: [Why are my VMware sensors not working after upgrading to VCSA 6.5 U1?](#)

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>

Settings on VMware Host System

If you set up this sensor on different probes (for example, when using [remote probes](#) or when running a [cluster](#)), you might need to change the settings of your VMware host so that it accepts more incoming connections. Otherwise, you might get connection timeouts when running plenty of VMware sensors with a short scanning interval.

- For details about this setting, see the Knowledge Base: [How can I increase the connection limit on VMware systems?](#)

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i PRTG requests a full list of all VMs configured on the target device. Because of this, it might take a few seconds before the dialog appears.

VMware Virtual Machine Settings

Setting	Description
Virtual Machines	You see a list of all VMs available on the host server on this device, including the ones that do not run. PRTG lists all VMs by name and the operating system that they run on. Select the VMs that you want to monitor. PRTG creates one sensor for each VM that you select.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections: 'Sensor Name' with the value 'Example Name', 'Tags' with 'exampletag' and a plus icon, and 'Priority' with five stars, the last one being filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p>

Setting	Description
	<p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> esxservervmsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

VMware Virtual Machine Settings

VMware Virtual Machine Settings

Managed Object Identifier (MOID) **i**

Handling of "Powered Off" VM **i**

Ignore "powered off" state (default)

Alarm when VM is "powered off"

Result Handling **i**

Discard result

Store result

VMware Virtual Machine Settings

Setting	Description
Managed Object Identifier (MOID)	<p>Shows the managed object identifier (MOID) of the VM that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Handling of "Powered Off" VM	<p>Define the sensor behavior for a VM that is powered off:</p> <ul style="list-style-type: none"> Ignore "powered off" state (default): Do not show the Down status¹⁹⁷ if the VM is powered off. The sensor reports zero values instead. Alarm when VM is "powered off": Show the Down status if the VM is powered off. <p>i If the sensor is in the Down status, it does not record any data in any of its channels.</p>

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>☁ This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[3977]).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU Ready (Percent)	The CPU readiness in percent
CPU Usage	<p>The CPU usage in percent</p> <p>ⓘ This channel is the primary channel by default.</p>

Channel	Description
Datastore Total Read Latency	The datastore total read latency in milliseconds (msec)
Datastore Total Write Latency	The datastore total write latency in msec
Disk Read	The disk read speed in bytes per second
Disk Usage	The disk usage per second
Disk Write	The disk write speed in bytes per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Memory Active	The active memory in bytes
Memory Consumed	The consumed memory in bytes
Memory Consumed (Percent)	The memory consumed in percent
Network Received	The received bytes per second
Network Transmitted	The transmitted bytes per second
Network Usage	The total network usage in bytes per second
Power	The power status

More

■ KNOWLEDGE BASE

I cannot add VMware sensors because of "wrong" password although it is correct. What can I do?

- <https://kb.paessler.com/en/topic/66794>

Why are my VMware sensors not working after upgrading to VCSA 6.5 U1?

- <https://kb.paessler.com/en/topic/78274>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

How can I increase the connection limit on VMware systems? PE121

Part 7: Device and Sensor Setup | 8 Sensor Settings
236 VMware Virtual Machine (SOAP) Sensor

- <https://kb.paessler.com/en/topic/30643>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Monitoring VMware ESXi 5.5 does not work. What can I do?





- <https://kb.paessler.com/en/topic/59173>

For which sensor types do you recommend Windows Server 2012 R2 or later and why?

- <https://kb.paessler.com/en/topic/64331>

Sensor Settings Overview

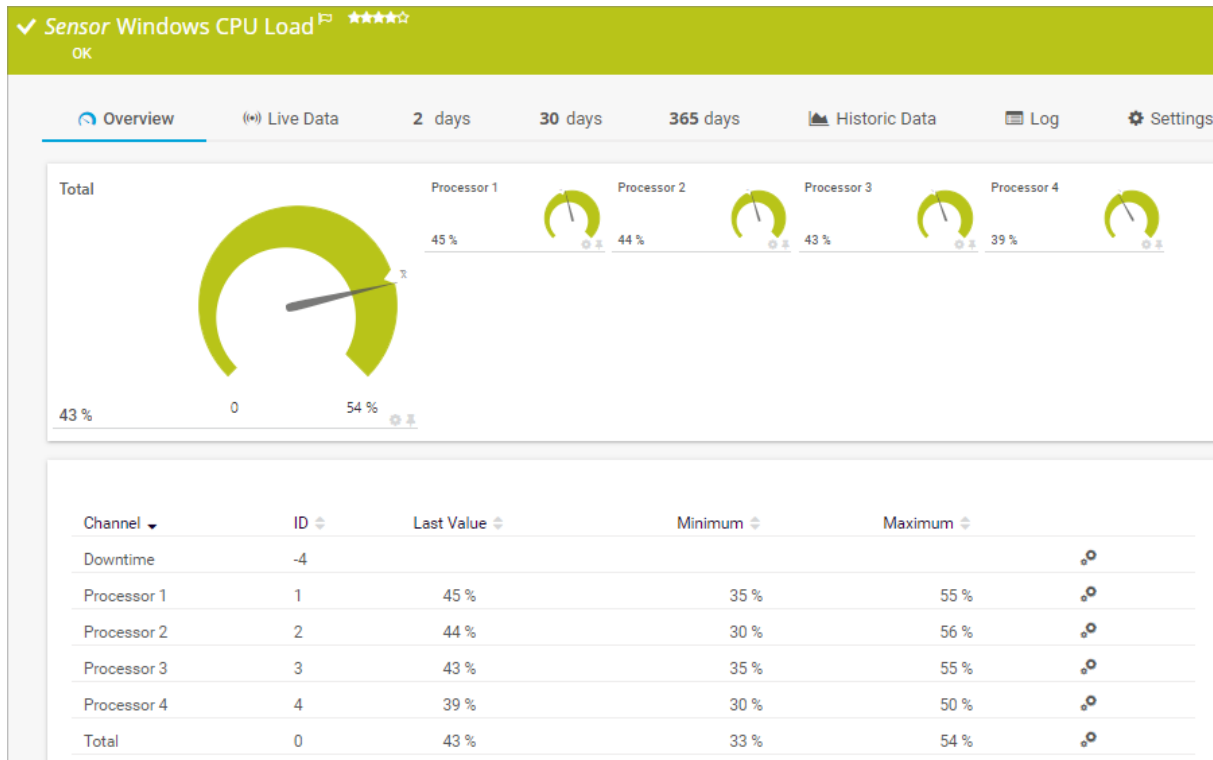
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.237 Windows CPU Load Sensor

The Windows CPU Load sensor monitors the CPU load on a computer via Windows Management Instrumentation (WMI) or Windows performance counters, as configured in the [Windows Compatibility Options](#) ^[464] of the parent device.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ^[3451].



Windows CPU Load Sensor

Sensor in Other Languages

- Dutch: Windows Processor Belasting
- French: Charge CPU de Windows
- German: Windows Prozessorlast
- Japanese: Windows CPU 負荷
- Portuguese: Windows Carga de CPU
- Russian: Windows
- Simplified Chinese: Windows CPU 负载
- Spanish: WMI carga de procesador

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires [credentials for Windows systems](#) ^[452] in the settings of the parent device.

- This sensor requires Windows Server 2008 R2 or later on the probe system.
- This sensor requires that the Remote Registry Windows service runs on the target computer.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports the IPv6 protocol.
- This sensor can use a hybrid approach with Windows performance counters and WMI as fallback to query data.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Windows credentials	<p>This sensor requires credentials for Windows systems in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p>i If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, a connection via performance counters is not possible. However, WMI connections might still work.</p>
Windows version	<p>For this sensor to work with Windows performance counters, make sure that a Windows version 2008 or later is installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i WoW64 (Windows 32-bit on Windows 64-bit) must be installed on target systems that run Windows Server 2016. This allows 32-bit applications to be run on 64-bit systems. This is necessary because the PRTG probe service only runs with 32-bit support. Without it, WMI sensors do not work.</p>
Remote Registry service	<p>For this sensor to work with Windows performance counters, make sure that the Remote Registry Windows service runs on the target computer. If this service does not run, a connection via performance counters is not possible. However, WMI connections might still work.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Hybrid Approach: Performance Counters and WMI

i By default, this sensor uses WMI to request monitoring data. You can change the default behavior to a [hybrid approach](#) in the Windows Compatibility Options of the parent [device's settings](#)^[464] on which you create this sensor: if you choose this option, the sensor first tries to query data via [Windows performance counters](#) and uses WMI as a fallback if performance counters are not available. When running in fallback mode, the sensor tries to connect via performance counters again after 24 hours.

i Sensors that use the WMI protocol have a high impact on the system performance. Try to stay below 200 WMI sensors per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[493] for load balancing.

i For a general introduction to the technology behind WMI, see section [Monitoring via WMI](#)^[426].

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog box. It has three main sections: 'Sensor Name' with a text input field containing 'Example Name'; 'Tags' with a text input field containing 'exampletag' and a plus sign icon; and 'Priority' with a star rating of five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[4031], reports^[4069], maps^[4095], libraries^[4047], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). i For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ cpuloadsensor ▪ wmicpuloadsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Debug Options

Debug Options

Result Handling **i**

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ^[4526] on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Alternative WMI Query

Alternative WMI Query

WMI sensors use the most efficient and accurate WMI queries possible. However, different Windows versions and even different patch levels on the target systems can lead to changes in some WMI classes. These changes often result in errors like class not valid or invalid data. If these errors persist, try using the option Query Method.

Query Method [ⓘ] Use the default WMI query method
 Use the alternative WMI query method

Alternative WMI Query

Setting	Description
Query Method	<p>Select the method that the sensor uses to query via WMI:</p> <ul style="list-style-type: none"> ▪ Use the default WMI query method: Use the standard method to query WMI. We recommend that you use this option. ▪ Use the alternative WMI query method: Use an alternative method to query WMI for better compatibility if WMI sensors return errors such as class not valid or invalid data.

Sensor Display

Sensor Display

Primary Channel [ⓘ] Downtime


Graph Type [ⓘ] Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>[ⓘ] You can set a different primary channel later by clicking [⚙] below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>[ⓘ] You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB ▾
	kbit ▾
	/ ▾
	sec... ▾
Bytes (Memory)	MB ▾
Bytes (Disk)	MB ▾
Bytes (File)	Byte ▾


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Processor [#]	The CPU load of the processor in percent

Channel	Description
Total	The total CPU load in percent  This channel is the primary channel by default.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My Windows sensors do not work when using direct performance counter access. What can I do?

- <https://kb.paessler.com/en/topic/47263>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3957

7.8.238 Windows IIS 6.0 SMTP Received Sensor

The Windows IIS 6.0 SMTP Received sensor monitors the number of received emails for a Microsoft Internet Information Services (IIS) 6.0 Simple Mail Transfer Protocol (SMTP) service (Exchange 2003) via Windows Management Instrumentation (WMI) or Windows performance counters, as configured in the [Windows Compatibility Options](#)^[464] of the parent device.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)^[3462].

Sensor in Other Languages

- Dutch: Windows IIS 6.0 SMTP Ontvangen
- French: Windows IIS 6.0 SMTP reçu
- German: WMI IIS 6.0 SMTP Empfangen
- Japanese: Windows IIS 6.0 SMTP 受信
- Portuguese: Windows IIS 6.0 SMTP recebido
- Russian: Windows IIS 6.0 SMTP
- Simplified Chinese: 已接收 Windows IIS 6.0 SMTP
- Spanish: WMI IIS 6.0 SMTP Recibidos

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- This sensor requires Windows Server 2008 R2 or later on the probe system.
- This sensor requires that the Remote Registry Windows service runs on the target computer.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor can use a hybrid approach with Windows performance counters and WMI as fallback to query data.
- This sensor supports the IPv6 protocol.
- This service is not used by Exchange Server 2007 and higher. Exchange Server 2007 uses its own SMTP stack implemented in the Microsoft Exchange Transport service.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Windows credentials	<p>This sensor requires credentials for Windows systems^[452] in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p>i If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, a connection via performance counters is not possible. However, WMI connections might still work.</p>
Windows version	<p>For this sensor to work with Windows performance counters, make sure that a Windows version 2008 or later is installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i WoW64 (Windows 32-bit on Windows 64-bit) must be installed on target systems that run Windows Server 2016. This allows 32-bit applications to be run on 64-bit systems. This is necessary because the PRTG probe service only runs with 32-bit support. Without it, WMI sensors do not work.</p>
Remote Registry service	<p>For this sensor to work with Windows performance counters, make sure that the Remote Registry Windows service runs on the target computer. If this service does not run, a connection via performance counters is not possible. However, WMI connections might still work.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Hybrid Approach: Performance Counters and WMI

- i** By default, this sensor uses WMI to request monitoring data. You can change the default behavior to a [hybrid approach](#) in the Windows Compatibility Options of the parent [device's settings](#)^[464] on which you create this sensor: if you choose this option, the sensor first tries to query data via [Windows performance counters](#) and uses WMI as a fallback if performance counters are not available. When running in fallback mode, the sensor tries to connect via performance counters again after 24 hours.
- i** Sensors that use the WMI protocol have a high impact on the system performance. Try to stay below 200 WMI sensors per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[4503] for load balancing.
- i** For a general introduction to the technology behind WMI, see section [Monitoring via WMI](#)^[4256].

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> wmiiissmtpreceivedsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

Debug Options

Debug Options

Result Handling ⓘ
 Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p> ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>




Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

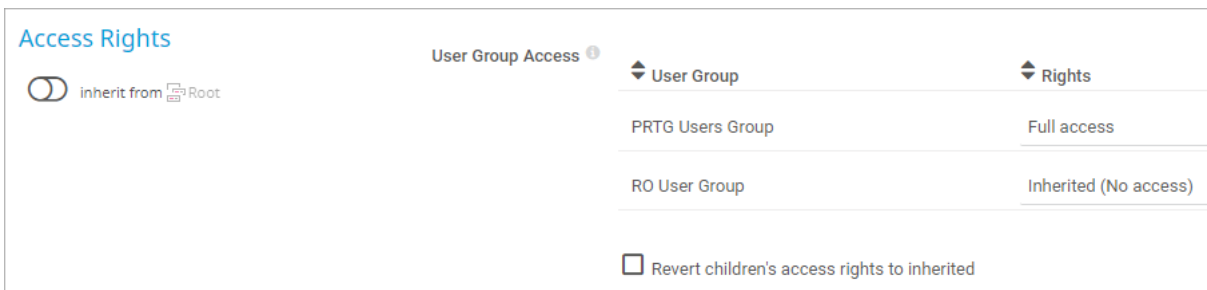
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights


Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**


Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Message Bytes Received	The number of bytes in received messages
Messages Received	The number of received messages  This channel is the primary channel by default.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My Windows sensors do not work when using direct performance counter access. What can I do?

- <https://kb.paessler.com/en/topic/47263>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.239 Windows IIS 6.0 SMTP Sent Sensor

The Windows IIS 6.0 SMTP Sent sensor monitors the number of sent emails for a Microsoft Internet Information Services (IIS) 6.0 Simple Mail Transfer Protocol (SMTP) service (Exchange 2003) via Windows Management Instrumentation (WMI) or Windows performance counters, as configured in the [Windows Compatibility Options](#)^[464] of the parent device.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)^[3473].

Sensor in Other Languages

- Dutch: Windows IIS 6.0 SMTP Verzonden
- French: Windows IIS 6.0 SMTP envoyé
- German: WMI IIS 6.0 SMTP Verschickt
- Japanese: Windows IIS 6.0 SMTP 送信
- Portuguese: Windows IIS 6.0 SMTP enviado
- Russian: Windows IIS 6.0 SMTP
- Simplified Chinese: 已发送 Windows IIS 6.0 SMTP
- Spanish: WMI IIS 6.0 SMTP Enviados

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- This sensor requires Windows Server 2008 R2 or later on the probe system.
- This sensor requires that the Remote Registry Windows service runs on the target computer.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor can use a hybrid approach with Windows performance counters and WMI as fallback to query data.
- This sensor supports the IPv6 protocol.
- This service is not used by Exchange Server 2007 and higher. Exchange Server 2007 uses its own SMTP stack implemented in the Microsoft Exchange Transport service.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Windows credentials	<p>This sensor requires credentials for Windows systems^[452] in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p>i If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, a connection via performance counters is not possible. However, WMI connections might still work.</p>
Windows version	<p>For this sensor to work with Windows performance counters, make sure that a Windows version 2008 or later is installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i WoW64 (Windows 32-bit on Windows 64-bit) must be installed on target systems that run Windows Server 2016. This allows 32-bit applications to be run on 64-bit systems. This is necessary because the PRTG probe service only runs with 32-bit support. Without it, WMI sensors do not work.</p>
Remote Registry service	<p>For this sensor to work with Windows performance counters, make sure that the Remote Registry Windows service runs on the target computer. If this service does not run, a connection via performance counters is not possible. However, WMI connections might still work.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Hybrid Approach: Performance Counters and WMI

- i** By default, this sensor uses WMI to request monitoring data. You can change the default behavior to a [hybrid approach](#) in the Windows Compatibility Options of the parent [device's settings](#)^[464] on which you create this sensor: if you choose this option, the sensor first tries to query data via [Windows performance counters](#) and uses WMI as a fallback if performance counters are not available. When running in fallback mode, the sensor tries to connect via performance counters again after 24 hours.
- i** Sensors that use the WMI protocol have a high impact on the system performance. Try to stay below 200 WMI sensors per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[4503] for load balancing.
- i** For a general introduction to the technology behind WMI, see section [Monitoring via WMI](#)^[4256].

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has a title bar 'Basic Sensor Settings'. Below the title bar, there are three sections: 'Sensor Name' with an information icon and the text 'Example Name'; 'Tags' with an information icon and a text input field containing 'exampletag', a close button (X), and a plus button (+); and 'Priority' with an information icon and five star icons, three of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> wmiiissmtpsentsensor
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

Debug Options

Debug Options

Result Handling ⓘ
 Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p> ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>




Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule **None**

Maintenance Window **Do not set up a one-time maintenance window**

Dependency Type **Use parent**

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**


Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Message Bytes Sent	The number of bytes in sent messages
Message Send Retries	The number of retries per second for sent messages
Messages Sent	The number of sent messages  This channel is the primary channel by default.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My Windows sensors do not work when using direct performance counter access. What can I do?

- <https://kb.paessler.com/en/topic/47263>

Sensor Settings Overview

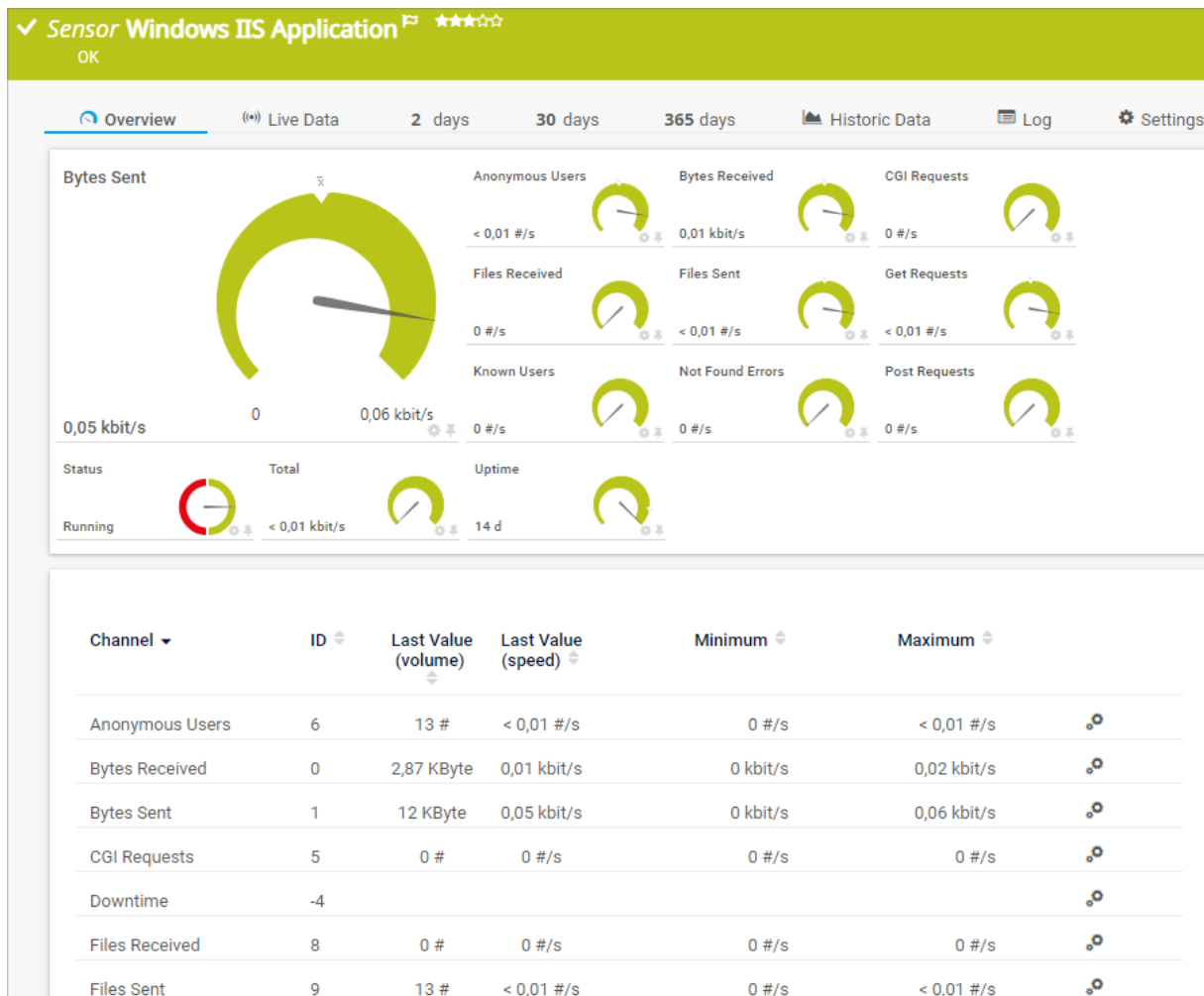
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.240 Windows IIS Application Sensor

The Windows IIS Application sensor monitors a Microsoft Internet Information Services (IIS) server via Windows Management Instrumentation (WMI). It can also monitor applications that use IIS, such as Microsoft SharePoint or Microsoft Reporting Services (SSRS).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Windows IIS Application Sensor

Sensor in Other Languages

- Dutch: Windows IIS Toepassing
- French: Application Windows IIS
- German: Windows IIS-Anwendung
- Japanese: Windows IIS アプリケーション
- Portuguese: Windows Aplicação IIS
- Russian: Windows IIS
- Simplified Chinese: Windows IIS 应用程序

- Spanish: Aplicación IIS WMI

Remarks

- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports the IPv6 protocol.
- This sensor has a medium performance impact.
- The sensor cannot return data for the channels Status, Uptime, and Total when using performance counters. We recommend that you use WMI only (recommended) as Preferred Data Source in the [Windows Compatibility Options](#)^[464] of the parent device.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Windows Internet Information Services

Setting	Description
Instances	<p>Select the instances that you want to monitor. PRTG creates one sensor for each instance that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ ⊕

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiis
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Windows Internet Information Services

Windows Internet Information Services
Instance ⓘ *_Total*

WMI Internet Information Services

Setting	Description
Instance	<p>Shows the unique instance name of the web service that this sensor monitors.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options
Result Handling ⓘ

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>




Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

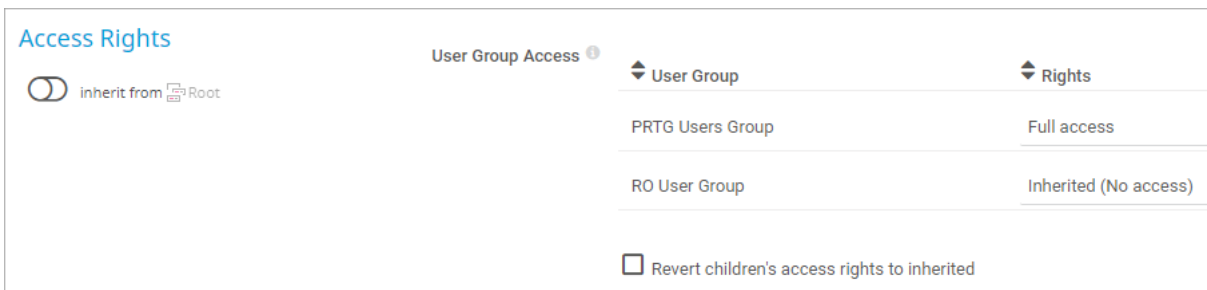
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights


Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Anonymous Users	The number of anonymous users per second
Bytes Received	The number of bytes received per second
Bytes Sent	The number of bytes sent per second ⓘ This channel is the primary channel by default.
CGI Requests	The number of Common Gateway Interface (CGI) requests per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Files Received	The number of files received per second
Files Sent	The number of files sent per second
Get Requests	The number of GET requests per second
Known Users	The number of known users per second
Not Found Errors	The number of not found errors per second
Post Requests	The number of POST requests per second
Status	The status of the web service <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Running ▪ Down status: Stopped
Total	The total in bytes per second
Uptime	The uptime of the web service

More

■ KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My Windows sensors do not work when using direct performance counter access. What can I do?

- <https://kb.paessler.com/en/topic/47263>

Sensor Settings Overview

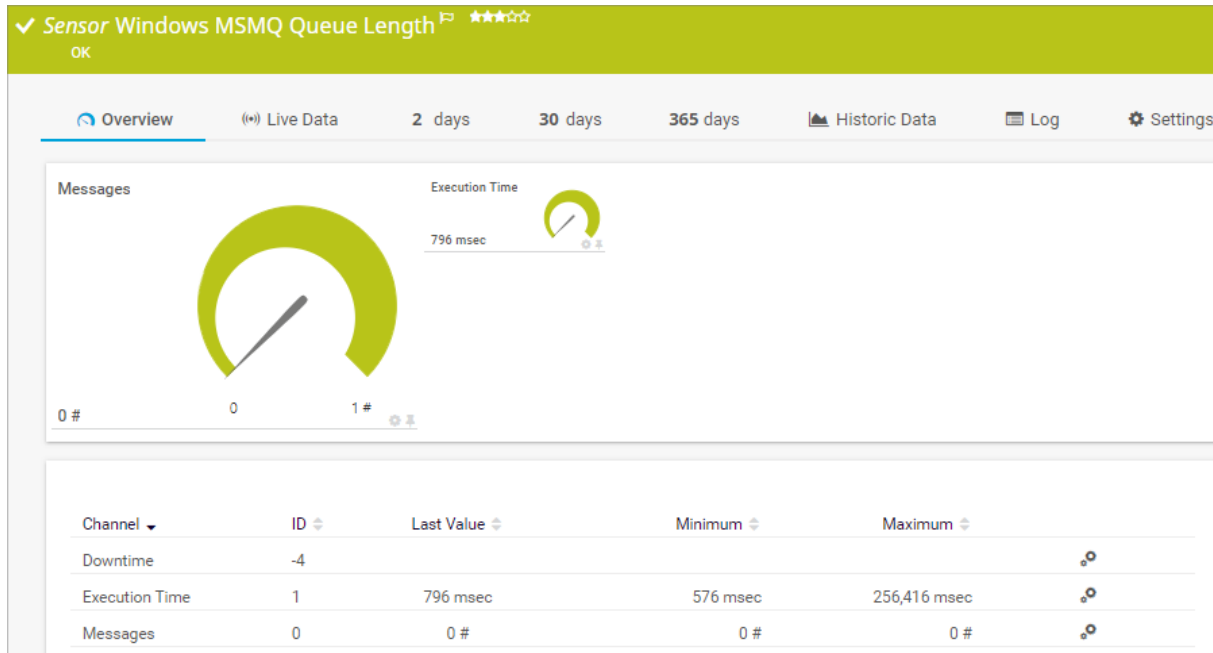
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.241 Windows MSMQ Queue Length Sensor

The Windows MSMQ Queue Length sensor reads the number of messages in a Microsoft message queue of the parent device.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Windows MSMQ Queue Length Sensor

Sensor in Other Languages

- Dutch: Windows MSMQ wachtrijlengte
- French: Longueur de la file d'attente MSMQ de Windows
- German: Windows MSMQ Queue-Länge
- Japanese: Windows MSMQ キュー長
- Portuguese: Windows Comprimento da fila MSMQ
- Russian: Windows MSMQ
- Simplified Chinese: Windows MSMQ 队列长度
- Spanish: Largo de queue de Windows MSMQ

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor [requires](#) that the Microsoft Message Queuing (MSMQ) service runs on both the probe system and the target system.
- This sensor requires .NET 4.7.2 or later on the probe system. If the sensor shows the error PE087, additionally install .NET 3.5 on the probe system.

- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [How do I activate Message Queuing in my Windows installation?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i If the framework is missing, you cannot create this sensor.</p> <p>■ For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Windows credentials	<p>This sensor requires credentials for Windows systems^[452] in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p>i If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, the sensor cannot correctly connect.</p>
Message Queuing service	<p>For this sensor to work, the MSMQ service must be started both on the target system and on the probe system. Additionally, the MSMQ service must also be started on the target computer.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p> <p>Depending on your Windows version, you might first need to install the MSMQ Server.</p> <p>i When installing MSMQ Server, make sure that you install it including the Directory Service. Depending on your Windows installation, this might have a different name, such as:</p> <ul style="list-style-type: none"> ▪ MSMQ Active Directory Domain Service Integration ▪ Directory Service Integration ▪ Active Directory Integration <p>■ For details, see the Knowledge Base: How do I activate Message Queuing in my Windows installation?</p>

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Sensor Settings

Setting	Description
Message Queues	<p>Select the message queues that you want to monitor. PRTG creates one sensor for each message queue that you select.</p> <ul style="list-style-type: none"> i If no message queues are available, you see a corresponding message. i This sensor cannot monitor subqueues. <ul style="list-style-type: none"> i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⁱ

Tags ⁱ x +

Priority ⁱ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree ¹⁸³¹, as well as in alarms ²²⁸¹, logs ²³⁷¹, notifications ⁴⁰³¹, reports ⁴⁰⁶⁹, maps ⁴⁰⁹⁶, libraries ⁴⁰⁴⁷, and tickets ²⁴⁰¹.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ ptfsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Sensor Settings

Sensor Settings

Message Queue **i** *All Outgoing Queues*

Message Queue Type **i** *OUTGOING*

Minimum Message Age **i** _____

If Value Changes **i** Ignore changes
 Trigger 'change' notification

Sensor Settings

Setting	Description
Message Queue	Shows the name of the message queue that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Message Queue Type	Shows the type of the message queue that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Minimum Message Age	Optionally define an age in minutes that the message must be for the sensor to count it. If you set a minimum message age, the sensor does not regard messages that are younger than this age. If you leave this field empty, the sensor does not check for the message age. Enter an integer value or leave the field empty.
If Value Changes	Define what the sensor does when the sensor value changes: <ul style="list-style-type: none"> ▪ Ignore changes (default): Take no action on change. ▪ Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁸, you can use this mechanism to trigger a notification³⁹⁸⁷ whenever the sensor value changes.

Debug Options

Debug Options

Result Handling ⓘ

Discard result

Store result

Debug Options

Setting	Description
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click ⓘ to interrupt the [inheritance](#).

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
Maintenance Window	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p> <p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Execution Time	The execution time in milliseconds (msec)
Messages	<p>The total number of messages in the queue</p> <p>i This channel is the primary channel by default.</p>

More

■ KNOWLEDGE BASE

How do I activate Message Queuing in my Windows installation?

- <https://kb.paessler.com/en/topic/25963>

Which .NET version does PRTG require?

Part 7: Device and Sensor Setup | 8 Sensor Settings
241 Windows MSMQ Queue Length Sensor





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

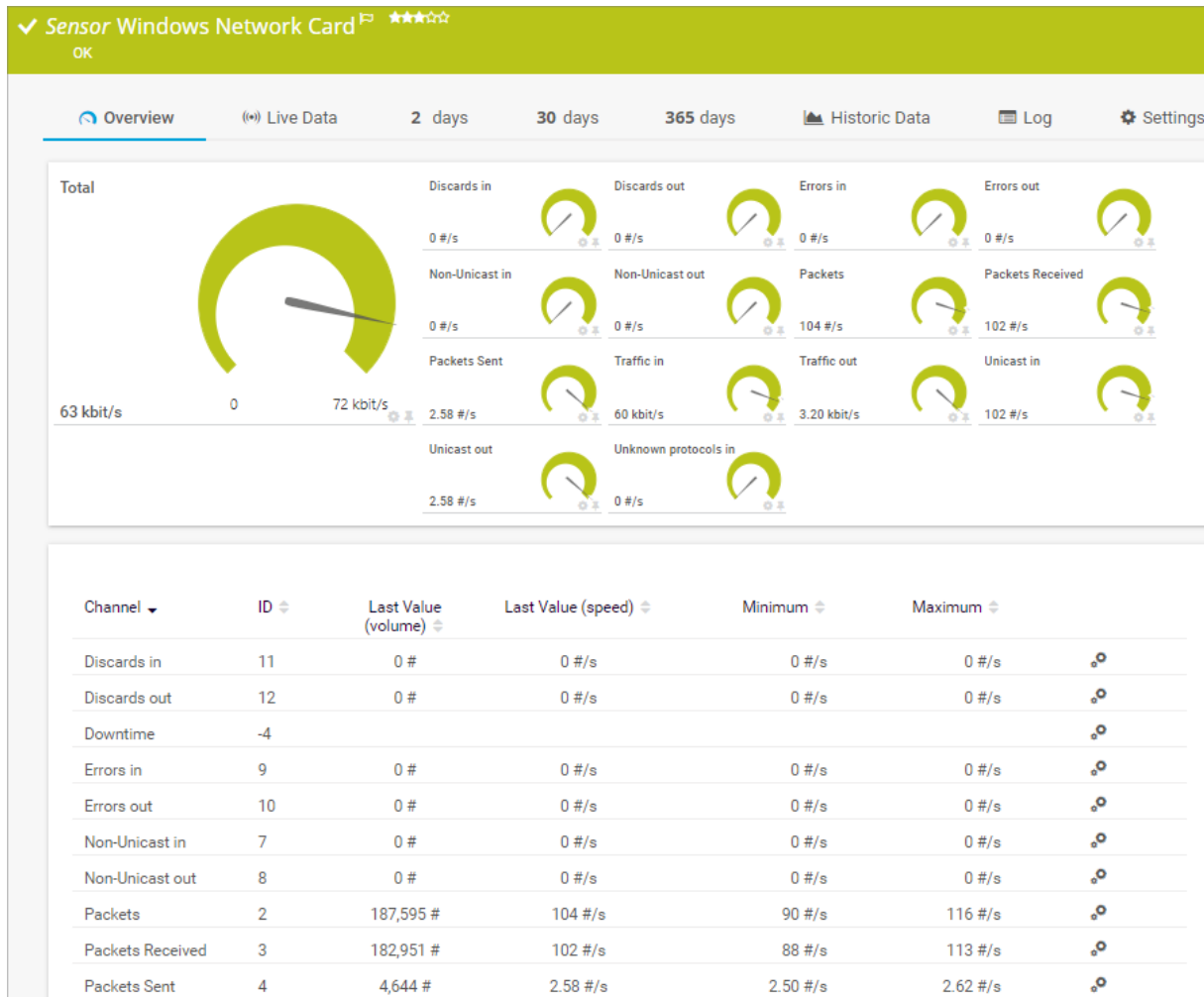
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3977

7.8.242 Windows Network Card Sensor

The Windows Network Card sensor monitors the bandwidth usage and traffic of a network interface via Windows Management Instrumentation (WMI) or Windows performance counters, as configured in the [Windows Compatibility Options](#)^[464] of the parent device.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)^[3510].



Windows Network Card Sensor

Sensor in Other Languages

- Dutch: Windows Netwerkkkaart
- French: Carte réseau Windows
- German: WMI Netzwerkadapter
- Japanese: Windows ネットワークカード
- Portuguese: Windows Adaptador de rede
- Russian: Windows
- Simplified Chinese: Windows 网卡

- Spanish: Windows tarjeta de red

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- This sensor [requires](#)^[3500] Windows 2008 R2 or later on the probe system to work with Windows performance counters.
- This sensor requires that the Windows Remote Registry service runs on the target computer.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor requires Windows Server 2008 R2 or Windows 7 or later to monitor 64-bit counters of the class [Network Adapter](#) (virtual network interfaces). On older target systems, the sensor can only monitor 32-bit counters of the class [Network Interface](#) (the physical interface) and shows fewer channels.
- This sensor can use a hybrid approach with Windows performance counters and WMI as fallback to query data.
- This sensor supports teamed network adapters ("network interface card (NIC) teaming") on Windows Server 2012.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Windows credentials	<p>This sensor requires credentials for Windows systems^[452] in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p>i If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, a connection via performance counters is not possible. However, WMI connections might still work.</p>
Windows version	<p>For this sensor to work with Windows performance counters, make sure that a Windows version 2008 or later is installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i WoW64 (Windows 32-bit on Windows 64-bit) must be installed on target systems that run Windows Server 2016. This allows 32-bit applications to be run on 64-bit systems. This is necessary because the PRTG probe service only runs with 32-bit support. Without it, WMI sensors do not work.</p>

Requirement	Description
Remote Registry service	<p>For this sensor to work with Windows performance counters, make sure that the Remote Registry Windows service runs on the target computer. If this service does not run, a connection via performance counters is not possible. However, WMI connections might still work.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Hybrid Approach: Performance Counters and WMI

i By default, this sensor uses WMI to request monitoring data. You can change the default behavior to a [hybrid approach](#) in the Windows Compatibility Options of the parent [device's settings](#)^[464] on which you create this sensor: if you choose this option, the sensor first tries to query data via [Windows performance counters](#) and uses WMI as a fallback if performance counters are not available. When running in fallback mode, the sensor tries to connect via performance counters again after 24 hours.

i Sensors that use the WMI protocol have a high impact on the system performance. Try to stay below 200 WMI sensors per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[4503] for load balancing.

i For a general introduction to the technology behind WMI, see section [Monitoring via WMI](#)^[4258].

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Sensor Specific

Setting	Description
Network Cards	<p>Select the network cards that you want to monitor. PRTG creates one sensor for each network card that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag X +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ bandwidthsensor ▪ wmibandwidthsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Sensor Specific

Sensor Specific Network Card ⓘ Gigabit-Netzwerkverbindung Intel[R] 82574L

Sensor Specific

Setting	Description
Network Card	Shows the name of the network card that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Debug Options

Debug Options Result Handling ⓘ Discard result
 Store result

Debug Options






Setting	Description
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

Sensor Display


Sensor Display Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷). ▪ Show in and out traffic as positive and negative area graph: Show channels for incoming and outgoing traffic as positive and negative area graph. This visualizes your traffic in a clear way. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings). Manual scaling is not possible if you choose this option.  You cannot show a positive/negative graph for a channel if you choose to display its data in percent of maximum (available in the channel settings).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
Maintenance Window	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Begins	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Discards In	The number of incoming discards per second
Discards Out	The number of outgoing discards per second
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Errors In	The number of incoming errors per second
Errors Out	The number of outgoing errors per second
Non-Unicast In	The number of incoming non-unicast packets per second
Non-Unicast Out	The number of outgoing non-unicast packets per second
Packets	The number of packets in total
Packets Received	The number of packets received per second
Packets Sent	The number of packets sent per second

Channel	Description
Total	The total traffic in bytes per second  This channel is the primary channel by default.
Traffic In	The incoming traffic in bytes per second
Traffic Out	The outgoing traffic in bytes per second
Unicast In	The number of incoming unicast packets per second
Unicast Out	The number of outgoing unicast packets per second
Unknown Protocols In	The number of unknown protocols per second

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My Windows sensors do not work when using direct performance counter access. What can I do?

- <https://kb.paessler.com/en/topic/47263>

Sensor Settings Overview

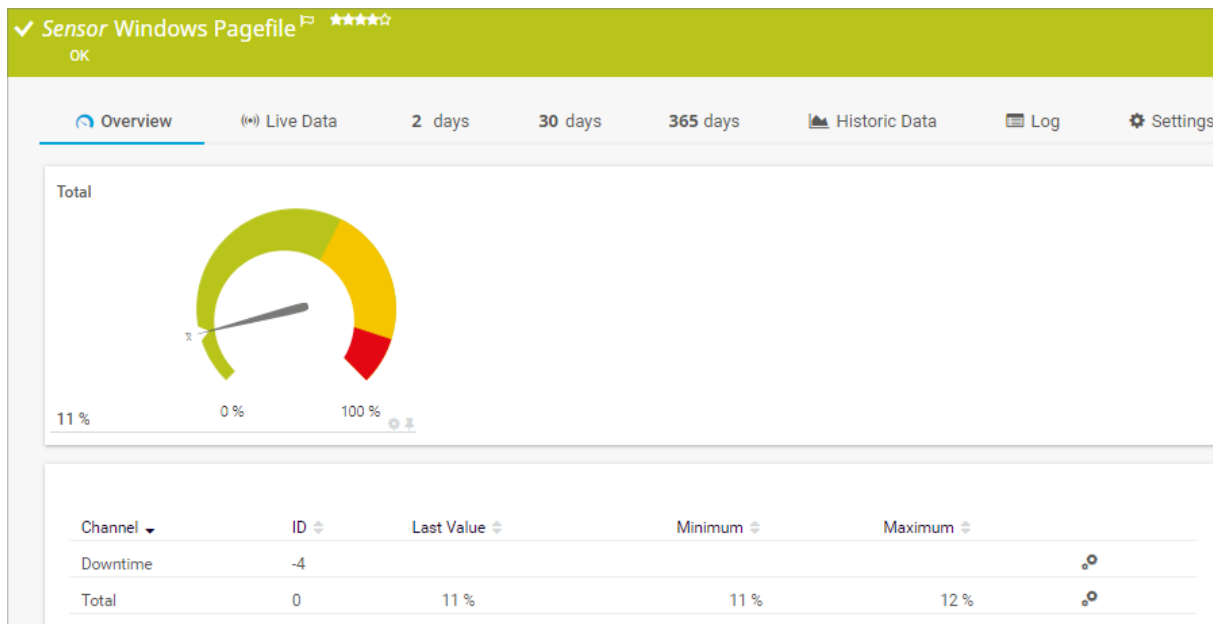
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.243 Windows Pagefile Sensor

The Windows Pagefile sensor monitors the Windows pagefile usage via Windows Management Instrumentation (WMI) or Windows performance counters, as configured in the [Windows Compatibility Options](#) ^[464] of the parent device.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ^[3521].



Windows Pagefile Sensor

Sensor in Other Languages

- Dutch: Windows Wisselbestand
- French: Fichier d'échange Windows
- German: WMI Auslagerungsdatei
- Japanese: Windows ページファイル
- Portuguese: Windows Arquivo de Paginação (Pagefile)
- Russian: Windows
- Simplified Chinese: Windows 页面文件
- Spanish: Archivo de página Windows

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires [credentials for Windows systems](#) ^[452] in the settings of the parent device.
- This sensor requires Windows Server 2008 R2 or later on the probe system.
- This sensor requires that the Remote Registry Windows service runs on the target computer.

- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor does not work with Windows 2000 because the respective WMI class does not exist on this operating system.
- This sensor can use a hybrid approach with Windows performance counters and WMI as fallback to query data.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Windows credentials	<p>This sensor requires credentials for Windows systems^[452] in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p>i If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, a connection via performance counters is not possible. However, WMI connections might still work.</p>
Windows version	<p>For this sensor to work with Windows performance counters, make sure that a Windows version 2008 or later is installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i WoW64 (Windows 32-bit on Windows 64-bit) must be installed on target systems that run Windows Server 2016. This allows 32-bit applications to be run on 64-bit systems. This is necessary because the PRTG probe service only runs with 32-bit support. Without it, WMI sensors do not work.</p>
Remote Registry service	<p>For this sensor to work with Windows performance counters, make sure that the Remote Registry Windows service runs on the target computer. If this service does not run, a connection via performance counters is not possible. However, WMI connections might still work.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Hybrid Approach: Performance Counters and WMI

i By default, this sensor uses WMI to request monitoring data. You can change the default behavior to a [hybrid approach](#) in the Windows Compatibility Options of the parent [device's settings](#)^[464] on which you create this sensor: if you choose this option, the sensor first tries to query data via [Windows performance counters](#) and uses WMI as a fallback if performance counters are not available. When running in fallback mode, the sensor tries to connect via performance counters again after 24 hours.

i Sensors that use the WMI protocol have a high impact on the system performance. Try to stay below 200 WMI sensors per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[4503] for load balancing.

i For a general introduction to the technology behind WMI, see section [Monitoring via WMI](#)^[4298].

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name**: A text input field containing "Example Name".
- Tags**: A list box containing "exampletag" with a close button (X) and an add button (+).
- Priority**: A star rating system showing 5 stars, with the first three filled and the last two empty.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[4031], reports^[4069], maps^[4095], libraries^[4047], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ pagefilesensor ▪ wmiimagefilesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Debug Options

Debug Options

Result Handling **i**
 Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>




Sensor Display

Sensor Display


Primary Channel **i** Downtime

Graph Type **i**
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule **None**

Maintenance Window **Do not set up a one-time maintenance window**
 Set up a one-time maintenance window

Dependency Type **Use parent**
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

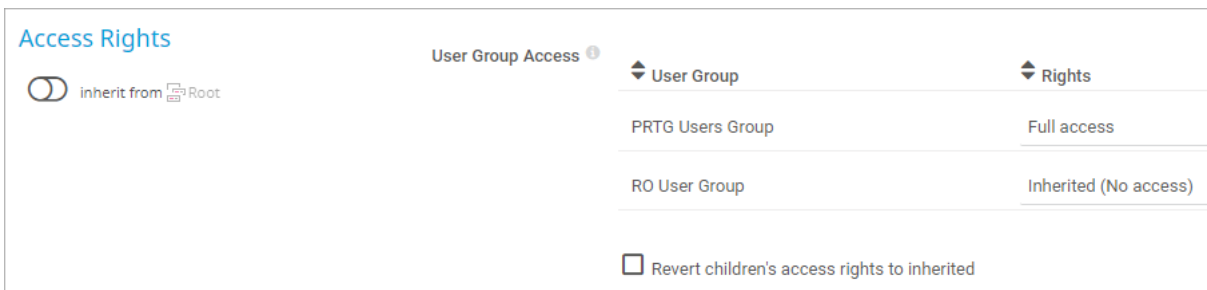
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights


Click  to interrupt the [inheritance](#) [142].




Access Rights

Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel List

-  Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Total	The total pagefile usage in percent  This channel is the primary channel by default.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My Windows sensors do not work when using direct performance counter access. What can I do?

- <https://kb.paessler.com/en/topic/47263>

Sensor Settings Overview

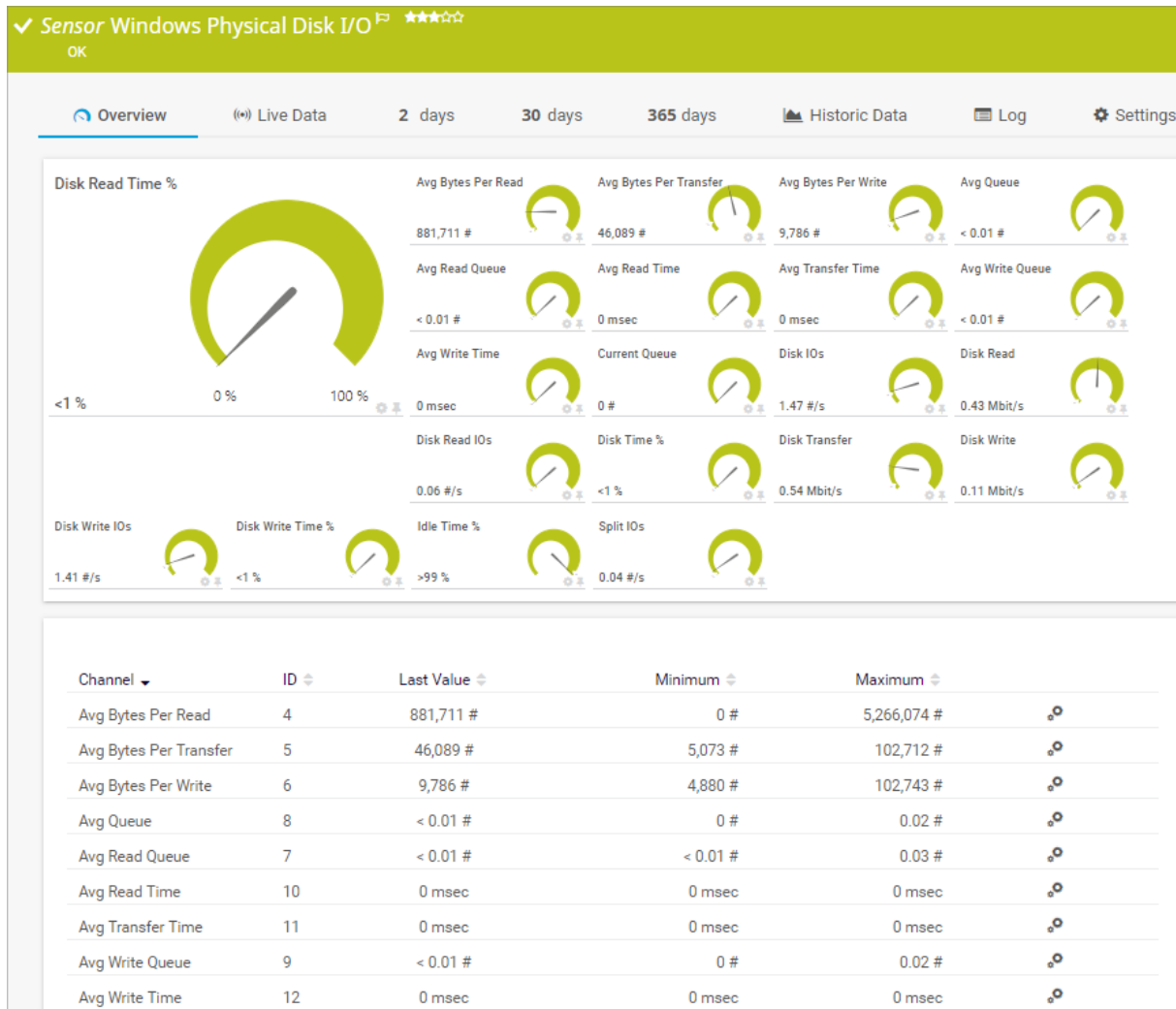
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.244 Windows Physical Disk I/O Sensor

The Windows Physical Disk I/O sensor monitors the input/output (I/O) parameters of a hard disk on a Windows system via Windows Management Instrumentation (WMI) or Windows performance counters, as configured in the [Windows Compatibility Options](#) [464] of the parent device.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) [3533].



Windows Physical Disk I/O Sensor

Sensor in Other Languages

- Dutch: Windows Fysieke Schijf I/O
- French: E/S du disque physique de Windows
- German: Windows Physikalischer Datenträger E/A
- Japanese: Windows 物理ディスク I/O
- Portuguese: Windows E/S de Disco físico
- Russian: - Windows

- Simplified Chinese: Windows 物理磁盘 I/O
- Spanish: Operaciones de E/S de disco físico Windows

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires [credentials for Windows systems](#) ^[452] in the settings of the parent device.
- This sensor requires Windows Server 2008 R2 or later on the probe system.
- This sensor requires that the Remote Registry Windows service runs on the target computer.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor can use a hybrid approach with Windows performance counters and WMI as fallback to query data.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Windows credentials	<p>This sensor requires credentials for Windows systems ^[452] in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p>i If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, a connection via performance counters is not possible. However, WMI connections might still work.</p>
Windows version	<p>For this sensor to work with Windows performance counters, make sure that a Windows version 2008 or later is installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i WoW64 (Windows 32-bit on Windows 64-bit) must be installed on target systems that run Windows Server 2016. This allows 32-bit applications to be run on 64-bit systems. This is necessary because the PRTG probe service only runs with 32-bit support. Without it, WMI sensors do not work.</p>
Remote Registry service	<p>For this sensor to work with Windows performance counters, make sure that the Remote Registry Windows service runs on the target computer. If this service does not run, a connection via performance counters is not possible. However, WMI connections might still work.</p>

Requirement	Description
	To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.

Hybrid Approach: Performance Counters and WMI

i By default, this sensor uses WMI to request monitoring data. You can change the default behavior to a [hybrid approach](#) in the Windows Compatibility Options of the parent [device's settings](#)^[464] on which you create this sensor: if you choose this option, the sensor first tries to query data via [Windows performance counters](#) and uses WMI as a fallback if performance counters are not available. When running in fallback mode, the sensor tries to connect via performance counters again after 24 hours.

i Sensors that use the WMI protocol have a high impact on the system performance. Try to stay below 200 WMI sensors per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[4503] for load balancing.

i For a general introduction to the technology behind WMI, see section [Monitoring via WMI](#)^[4258].

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Windows Physical Disk Specific

Setting	Description
Disk	Select the physical disks that you want to monitor. PRTG creates one sensor for each physical disk that you select. i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag ✕ +

★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiphysicaldisksensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

Windows Physical Disk Specific

Windows Physical Disk Specific
Disk ⓘ *_Total*

Windows Physical Disk Specific

Setting	Description
Disk	<p>Shows the physical disk that this sensor monitors.</p> <p>ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options
Result Handling ⓘ

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[452] on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>ⓘ PRTG only stores the result of this sensor if you select WMI only (recommended) as Preferred Data Source in the Windows Compatibility Options^[464] of the parent device.</p> <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click ⓘ to interrupt the [inheritance](#).

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Avg Bytes Per Read	The average number of bytes per read
Avg Bytes Per Transfer	The average number of bytes per transfer
Avg Bytes Per Write	The average number of bytes per write
Avg Queue	The average number of items in the queue
Avg Read Queue	The average number of items in the read queue
Avg Read Time	The average read time in milliseconds (msec)
Avg Transfer Time	The average transfer time in msec
Avg Write Queue	The average number of items in the write queue
Avg Write Time	The average write time in msec
Current Queue	The current number of items in the queue
Disk IOs	The number of disk input/output (I/O) operations per second

Channel	Description
Disk Read	The disk read speed in bytes per second
Disk Read IOs	The number of disk read I/O operations per second
Disk Read Time %	The disk read time in percent i This channel is the primary channel by default.
Disk Time %	The disk time in percent
Disk Transfer	The disk transfer speed in bytes per second
Disk Write	The disk write speed in bytes per second
Disk Write IOs	The number of disk write I/O operations per second
Disk Write Time %	The disk write time in percent
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Idle Time %	The idle time in percent
Split IOs	The number of split I/O operations per second

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

My Windows sensors do not work when using direct performance counter access. What can I do?

- <https://kb.paessler.com/en/topic/47263>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#) ⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#) ³⁹⁷²
- [Channel Settings](#) ³⁹⁷⁷
- [Notification Triggers Settings](#) ³⁹⁸⁷

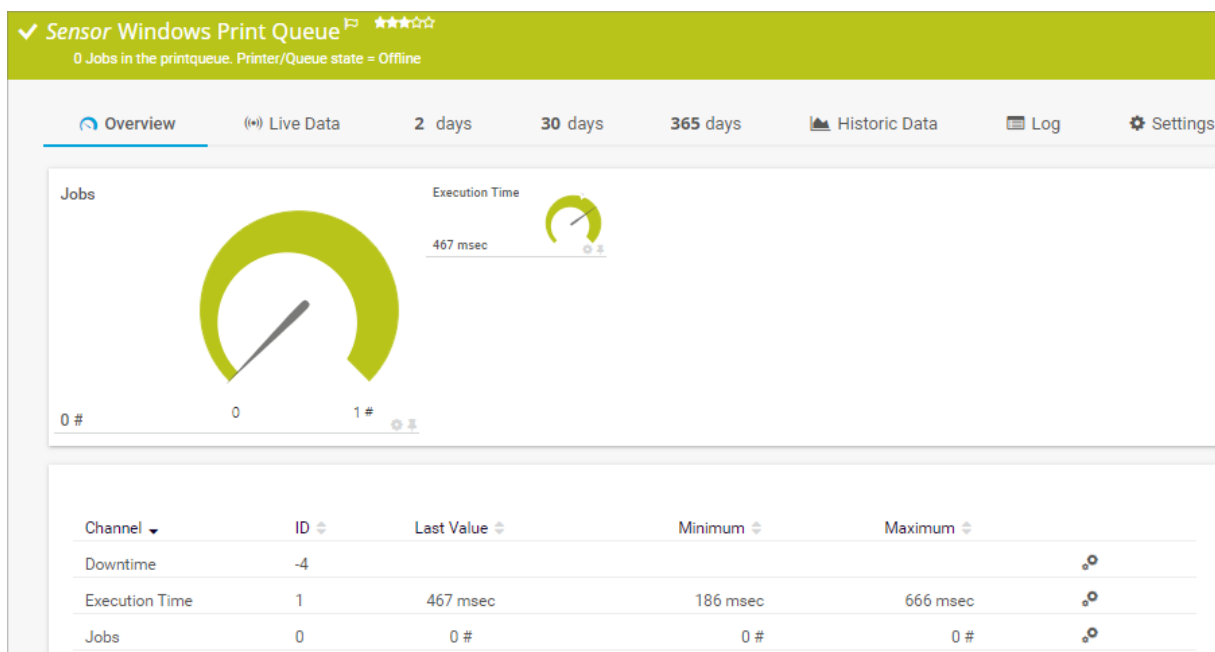
7.8.245 Windows Print Queue Sensor

The Windows Print Queue sensor reads the print queue on the parent device and returns the number of jobs in the print queue. It can monitor queues for all printers that are locally installed.

i You can use this sensor to monitor all print queues on your Windows print server and to retrieve information about all available jobs that are in the queue longer than defined.

i Additionally, this sensor can change to a defined status if there is a printer problem. See section [Sensor Settings](#)³⁵³⁷ for available parameters.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)³⁵⁴⁷.



Windows Print Queue Sensor

Sensor in Other Languages




- Dutch: Windows Print Queue
- French: File d'attente d'impression Windows
- German: Windows Druckwarteschlange
- Japanese: Windows プリントキュー
- Portuguese: Windows Fila de impressão
- Russian: Windows
- Simplified Chinese: Windows 打印队列
- Spanish: Queue de impresión Windows

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor [requires](#) ³⁵³⁶ that the Print Spooler Windows service runs on the target device.
- This sensor requires .NET 4.7.2 or later on the probe system. If the sensor shows the error PE087, additionally install .NET 3.5 on the probe system.
- This sensor requires [credentials for Windows systems](#) ⁴⁵² in the settings of the parent device.
- We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
- This sensor supports the IPv6 protocol.
- You can add a [change trigger](#) ⁴¹³⁸ to this sensor to get a notification when the number of jobs in the queue changes.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Windows credentials	<p>This sensor requires credentials for Windows systems ⁴⁵² in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p> If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, the sensor cannot correctly connect.</p>
Print Spooler service	<p>For this sensor to work, the Spooler "Print Spooler" service must be started on the target computer.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- i** The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Sensor Settings

Setting	Description
Print Queues	<p>Select the print queues that you want to monitor. PRTG creates one sensor for each print queue that you select.</p> <ul style="list-style-type: none"> i If no print queues are available, you see a corresponding message. i If a printer name changes after sensor creation, you need to add the sensor anew. i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A list of tags with 'exampletag' selected, and buttons for 'x' (remove) and '+' (add).
- Priority**: A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree ¹⁸³¹, as well as in alarms ²²⁸¹, logs ²³⁷¹, notifications ⁴⁰³¹, reports ⁴⁰⁶⁹, maps ⁴⁰⁹⁶, libraries ⁴⁰⁴⁷, and tickets ²⁴⁰¹.</p>

Setting	Description
	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ ptfsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings

Print Queue **i** *Microsoft XPS Document Writer*

Advanced Status Options **i** Do not define sensor states for specific return messages
 Define sensor states for specific return messages

Minimum Print Job Age (Sec.) **i** _____

Sensor Settings

Setting	Description
Print Queue	<p>Shows the name of the task whose print queue this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Advanced Status Options	<p>You can optionally define specific sensor states¹⁹⁷ for several return messages of the printer that this sensor monitors. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not define sensor states for specific return messages: Do not define sensor states for specific return messages. ▪ Define sensor states for specific return messages: Define sensor states for various messages that the printer reports. <p>i Not all printer types properly support Advanced Status Options, which might lead to false alerts. If the printer does not support a property, this property is always false. This means that the sensor cannot display the state or detect if the printer supports the property. Even if the printer can report a property, it can only do so if a print job is sent to the printer.</p>
Door Open	<p>This setting is only available if you select the Define sensor states for specific return messages above. For each problem that the printer reports, you can define the status that the sensor shows. Choose between:</p> <ul style="list-style-type: none"> ▪ Ignore: Stay the same if the printer reports this message. ▪ Warning: Show the Warning status if the printer reports this message. ▪ Down: Show the Down status if the printer reports this message.
Manual Feed Required	<p>This setting is only available if you select the Define sensor states for specific return messages above. For each problem that the printer reports, you can define the status that the sensor shows. Choose between:</p> <ul style="list-style-type: none"> ▪ Ignore: Stay the same if the printer reports this message. ▪ Warning: Show the Warning status if the printer reports this message. ▪ Down: Show the Down status if the printer reports this message.
Needs User Intervention	<p>This setting is only available if you select the Define sensor states for specific return messages above. For each problem that the printer reports, you can define the status that the sensor shows. Choose between:</p> <ul style="list-style-type: none"> ▪ Ignore: Stay the same if the printer reports this message. ▪ Warning: Show the Warning status if the printer reports this message. ▪ Down: Show the Down status if the printer reports this message.
Offline	<p>This setting is only available if you select the Define sensor states for specific return messages above. For each problem that the printer reports, you can define the status that the sensor shows. Choose between:</p> <ul style="list-style-type: none"> ▪ Ignore: Stay the same if the printer reports this message.

Setting	Description
Out of Memory	<ul style="list-style-type: none"> ▪ Warning: Show the Warning status if the printer reports this message. ▪ Down: Show the Down status if the printer reports this message. <p>This setting is only available if you select the Define sensor states for specific return messages above. For each problem that the printer reports, you can define the status that the sensor shows. Choose between:</p> <ul style="list-style-type: none"> ▪ Ignore: Stay the same if the printer reports this message. ▪ Warning: Show the Warning status if the printer reports this message. ▪ Down: Show the Down status if the printer reports this message.
Out of Paper	<p>This setting is only available if you select the Define sensor states for specific return messages above. For each problem that the printer reports, you can define the status that the sensor shows. Choose between:</p> <ul style="list-style-type: none"> ▪ Ignore: Stay the same if the printer reports this message. ▪ Warning: Show the Warning status if the printer reports this message. ▪ Down: Show the Down status if the printer reports this message.
Paper Jammed	<p>This setting is only available if you select the Define sensor states for specific return messages above. For each problem that the printer reports, you can define the status that the sensor shows. Choose between:</p> <ul style="list-style-type: none"> ▪ Ignore: Stay the same if the printer reports this message. ▪ Warning: Show the Warning status if the printer reports this message. ▪ Down: Show the Down status if the printer reports this message.
Paper Problem	<p>This setting is only available if you select the Define sensor states for specific return messages above. For each problem that the printer reports, you can define the status that the sensor shows. Choose between:</p> <ul style="list-style-type: none"> ▪ Ignore: Stay the same if the printer reports this message. ▪ Warning: Show the Warning status if the printer reports this message. ▪ Down: Show the Down status if the printer reports this message.
Paused	<p>This setting is only available if you select the Define sensor states for specific return messages above. For each problem that the printer reports, you can define the status that the sensor shows. Choose between:</p> <ul style="list-style-type: none"> ▪ Ignore: Stay the same if the printer reports this message. ▪ Warning: Show the Warning status if the printer reports this message. ▪ Down: Show the Down status if the printer reports this message.

Setting	Description
Printer Error	<p>This setting is only available if you select the Define sensor states for specific return messages above. For each problem that the printer reports, you can define the status that the sensor shows. Choose between:</p> <ul style="list-style-type: none"> Ignore: Stay the same if the printer reports this message. Warning: Show the Warning status if the printer reports this message. Down: Show the Down status if the printer reports this message.
Printer Not Available	<p>This setting is only available if you select the Define sensor states for specific return messages above. For each problem that the printer reports, you can define the status that the sensor shows. Choose between:</p> <ul style="list-style-type: none"> Ignore: Stay the same if the printer reports this message. Warning: Show the Warning status if the printer reports this message. Down: Show the Down status if the printer reports this message.
Toner Low	<p>This setting is only available if you select the Define sensor states for specific return messages above. For each problem that the printer reports, you can define the status that the sensor shows. Choose between:</p> <ul style="list-style-type: none"> Ignore: Stay the same if the printer reports this message. Warning: Show the Warning status if the printer reports this message. Down: Show the Down status if the printer reports this message.
Toner Out	<p>This setting is only available if you select the Define sensor states for specific return messages above. For each problem that the printer reports, you can define the status that the sensor shows. Choose between:</p> <ul style="list-style-type: none"> Ignore: Stay the same if the printer reports this message. Warning: Show the Warning status if the printer reports this message. Down: Show the Down status if the printer reports this message.
Minimum Print Job Age (Sec.)	<p>Optionally define the age of the print job in seconds. If you define a minimum print job age, the sensor does not regard jobs that are younger than this value. If you leave this field empty, the sensor does not check for the print job age. Enter an integer value or leave the field empty.</p>

Debug Options

Debug Options

Result Handling ⓘ
 Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ


Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration^[4187] on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

- Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Execution Time	The execution time in milliseconds (msec)
Jobs	The number of jobs in the queue

This channel is the primary channel by default.

More

KNOWLEDGE BASE

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

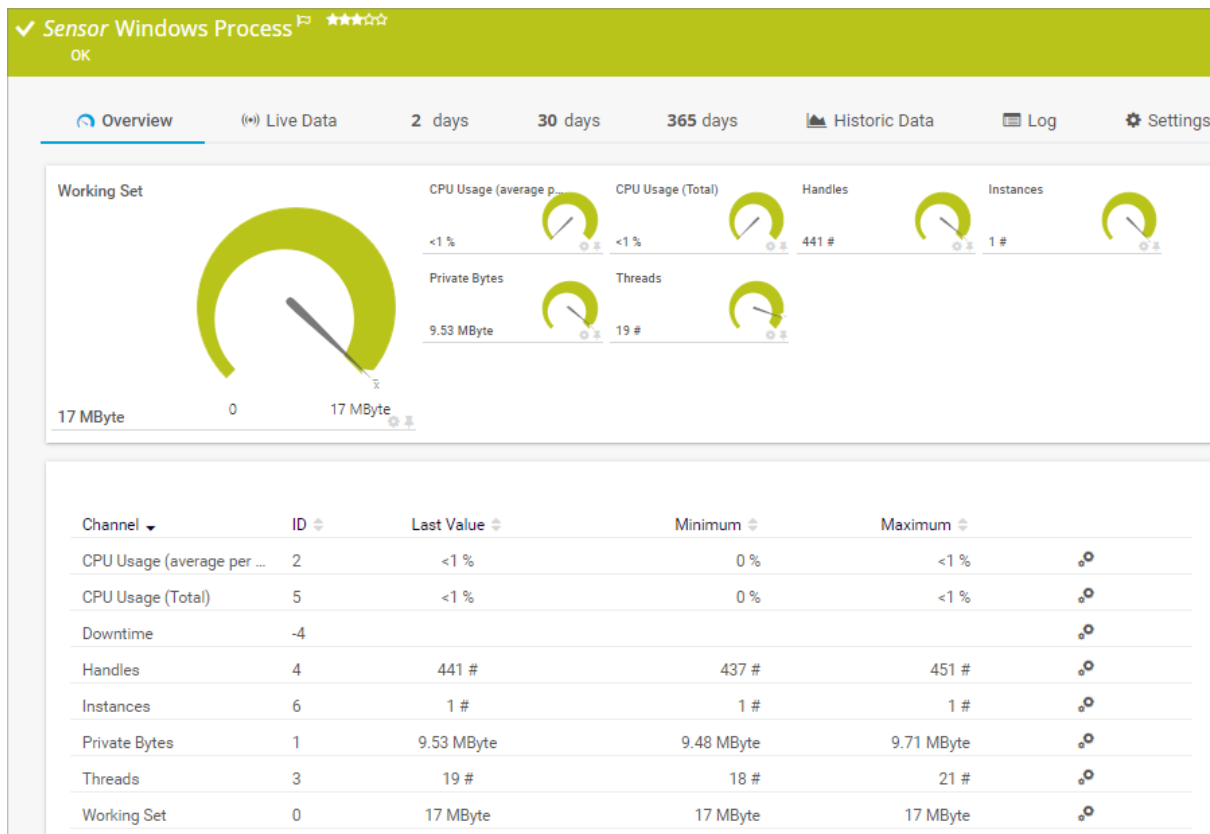
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3967

7.8.246 Windows Process Sensor

The Windows Process sensor monitors a Windows process via Windows Management Instrumentation (WMI) or Windows performance counters, as configured in the [Windows Compatibility Options](#) ^[464] of the parent device.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#) ^[3559].



Windows Process Sensor

Sensor in Other Languages

- Dutch: Windows Proces
- French: Processus Windows
- German: Windows Prozess
- Japanese: Windows プロセス
- Portuguese: Windows Processo
- Russian: Windows
- Simplified Chinese: Windows 进程
- Spanish: Proceso de Windows

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor requires [credentials for Windows systems](#) ^[452] in the settings of the parent device.
- This sensor requires Windows Server 2008 R2 or later on the probe system.
- This sensor requires that the Remote Registry Windows service runs on the target computer.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- The sensor cannot show values above 4 GB for 64-bit processes if you use performance counters.
- This sensor can use a hybrid approach with Windows performance counters and WMI as fallback to query data.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Windows credentials	<p>This sensor requires credentials for Windows systems ^[452] in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p>i If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, a connection via performance counters is not possible. However, WMI connections might still work.</p>
Windows version	<p>For this sensor to work with Windows performance counters, make sure that a Windows version 2008 or later is installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i WoW64 (Windows 32-bit on Windows 64-bit) must be installed on target systems that run Windows Server 2016. This allows 32-bit applications to be run on 64-bit systems. This is necessary because the PRTG probe service only runs with 32-bit support. Without it, WMI sensors do not work.</p>
Remote Registry service	<p>For this sensor to work with Windows performance counters, make sure that the Remote Registry Windows service runs on the target computer. If this service does not run, a connection via performance counters is not possible. However, WMI connections might still work.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Hybrid Approach: Performance Counters and WMI

i By default, this sensor uses WMI to request monitoring data. You can change the default behavior to a [hybrid approach](#) in the Windows Compatibility Options of the parent [device's settings](#)^[464] on which you create this sensor: if you choose this option, the sensor first tries to query data via [Windows performance counters](#) and uses WMI as a fallback if performance counters are not available. When running in fallback mode, the sensor tries to connect via performance counters again after 24 hours.

i Sensors that use the WMI protocol have a high impact on the system performance. Try to stay below 200 WMI sensors per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[493] for load balancing.

i For a general introduction to the technology behind WMI, see section [Monitoring via WMI](#)^[426].

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog box. It has three main sections: 'Sensor Name' with the value 'Example Name', 'Tags' with a list containing 'exampletag' and a plus sign to add more, and 'Priority' set to 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree ^[183] , as well as in alarms ^[228] , logs ^[237] , notifications ^[4031] , reports ^[4069] , maps ^[4095] , libraries ^[4047] , and tickets ^[240] . i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?
Parent Tags	Shows tags ^[145] that the sensor inherits ^[145] from its parent device ^[140] , parent group ^[139] , and parent probe ^[139] . i This setting is for your information only. You cannot change it.

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> ❗ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ❗ For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiprocesssensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Windows Process Monitor

Windows Process Monitor Executable ⓘ

Windows Process Monitor

Setting	Description
Executable	<p>Enter the name of the process that you want to monitor. Provide the name of an executable file without the <code>.exe</code> extension (for example, enter <code>firefox</code> to monitor <code>firefox.exe</code>).</p> <ul style="list-style-type: none"> ❗ The sensor shows the Down status ^[197] if the process is not active on the target device.

Debug Options


Debug Options Result Handling ⓘ Discard result
 Store result


Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type  Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



For more information, see section [Inheritance of Settings](#).


Scanning Interval

Click  to interrupt the inheritance.


Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>ⓘ Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>ⓘ If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>ⓘ If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

ⓘ You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB ▾
	kbit ▾
	/ ▾
	sec... ▾
Bytes (Memory)	MB ▾
Bytes (Disk)	MB ▾
Bytes (File)	Byte ▾



Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU Usage (Average Per Instance)	<p>The average CPU usage (if multiple instances are running) in percent</p> <p>ⓘ For the CPU Usage (average per instance) value, the summed up CPU usage value is divided by the number of all instances. It shows the average CPU usage of a single instance of the process on one CPU.</p>

Channel	Description
CPU Usage (Total)	The total CPU usage in percent  For the CPU Usage (Total) value of a process, all CPU usage values are summed up. The total is divided by the number of all CPUs and the maximum value is 100%. This corresponds to the CPU usage of all instances of this specific process.
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Handles	The number of handles
Instances	The number of instances
Private Bytes	The private bytes
Threads	The number of threads
Working Set	The working set in bytes  This channel is the primary channel by default.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My Windows sensors do not work when using direct performance counter access. What can I do?

- <https://kb.paessler.com/en/topic/47263>

Sensor Settings Overview

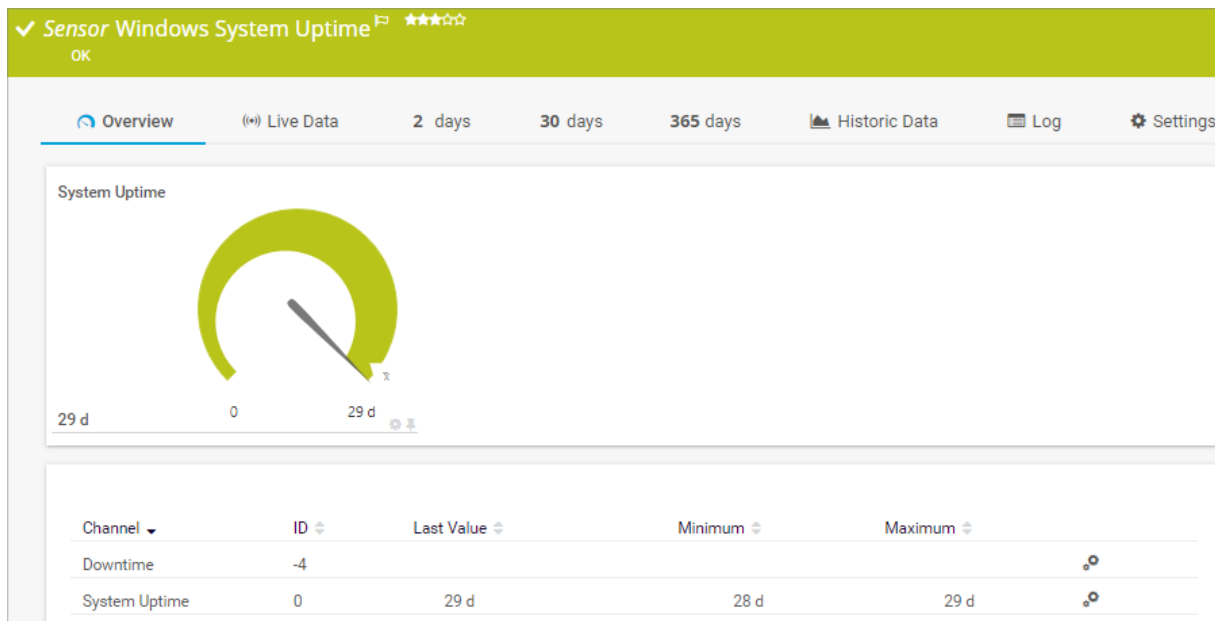
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.247 Windows System Uptime Sensor

The Windows System Uptime sensor monitors the uptime of a Windows system via Windows Management Instrumentation (WMI) or Windows performance counters, as configured in the [Windows Compatibility Options](#)^[464] of the parent device.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)^[3570].



Windows System Uptime Sensor

Sensor in Other Languages

- Dutch: Windows System Uptime
- French: Disponibilité du système Windows
- German: Windows-Systemlaufzeit
- Japanese: Windows システムアップタイム
- Portuguese: Windows Tempo de ativação do sistema
- Russian: Windows
- Simplified Chinese: Windows 系统正常运行时间
- Spanish: Tiempo disponible Windows

Remarks

- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- This sensor requires Windows Server 2008 R2 or later on the probe system.
- This sensor requires that the Remote Registry Windows service runs on the target computer.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.

- This sensor can use a hybrid approach with Windows performance counters and WMI as fallback to query data.
- This sensor supports the IPv6 protocol.
- This sensor has a high performance impact.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
Windows credentials	<p>This sensor requires credentials for Windows systems^[452] in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p>i If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, a connection via performance counters is not possible. However, WMI connections might still work.</p>
Windows version	<p>For this sensor to work with Windows performance counters, make sure that a Windows version 2008 or later is installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i WoW64 (Windows 32-bit on Windows 64-bit) must be installed on target systems that run Windows Server 2016. This allows 32-bit applications to be run on 64-bit systems. This is necessary because the PRTG probe service only runs with 32-bit support. Without it, WMI sensors do not work.</p>
Remote Registry service	<p>For this sensor to work with Windows performance counters, make sure that the Remote Registry Windows service runs on the target computer. If this service does not run, a connection via performance counters is not possible. However, WMI connections might still work.</p> <p>To enable the service, log in to the respective computer and open the services manager (for example, via services.msc). In the list, find the respective service and set its Start Type to Automatic.</p>

Hybrid Approach: Performance Counters and WMI

i By default, this sensor uses WMI to request monitoring data. You can change the default behavior to a [hybrid approach](#) in the Windows Compatibility Options of the parent [device's settings](#)^[464] on which you create this sensor: if you choose this option, the sensor first tries to query data via [Windows performance counters](#) and uses WMI as a fallback if performance counters are not available. When running in fallback mode, the sensor tries to connect via performance counters again after 24 hours.

i Sensors that use the WMI protocol have a high impact on the system performance. Try to stay below 200 WMI sensors per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[4503] for load balancing.

i For a general introduction to the technology behind WMI, see section [Monitoring via WMI](#)^[4286].

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections: 'Sensor Name' with a text input field containing 'Example Name'; 'Tags' with a text input field containing 'exampletag' and a plus icon; and 'Priority' with a star rating of five stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[4031], reports^[4069], maps^[4055], libraries^[4047], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p>

Setting	Description
	<p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> wmiuptimesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Debug Options

Debug Options

Result Handling **i**

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory [4526] on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management.</p>

Channel List

- ❗ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
System Uptime	<p>The system uptime</p> <p>❗ This channel is the primary channel by default.</p>

More

■ KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My Windows sensors do not work when using direct performance counter access. What can I do?

- <https://kb.paessler.com/en/topic/47263>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

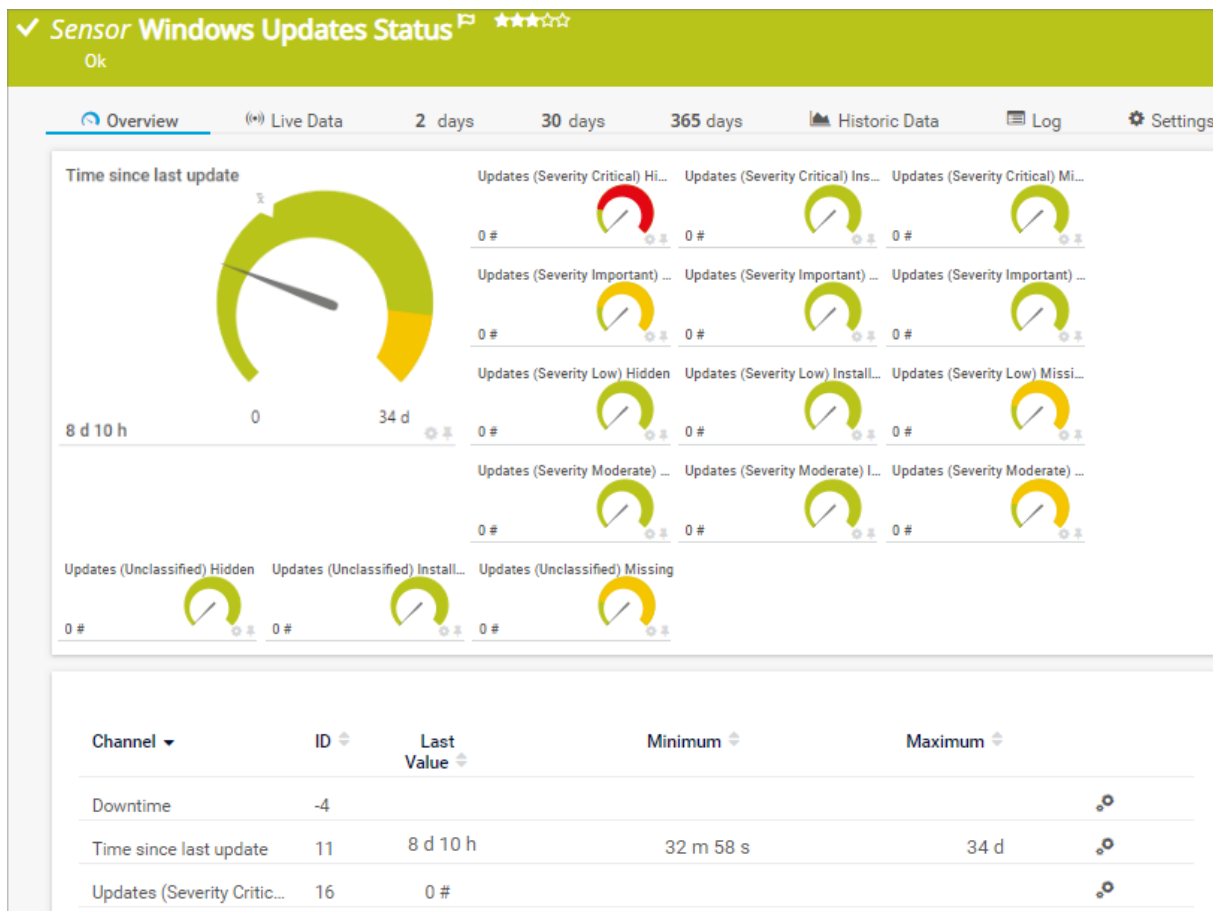
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.248 Windows Updates Status (PowerShell) Sensor

The Windows Updates Status (PowerShell) sensor monitors the status of Windows updates on a computer and counts the available and installed Windows updates that are either from Microsoft or from the local Windows Server Update Services (WSUS) server.

i You can find the updates that the sensor considers in the [Server Manager \(WSUS\)](#) under Roles | Windows Server Update Services | Update Services | Computers | Reports.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Windows Updates Status (PowerShell) Sensor

Sensor in Other Languages

- Dutch: Windows Updates Status (PowerShell)
- French: Statut de mises à jour Windows (PowerShell)
- German: Windows Updates Status (PowerShell)
- Japanese: Windows アップデートステータス (PowerShell)
- Portuguese: Status de atualizações do Windows (PowerShell)
- Russian: Windows (PowerShell)
- Simplified Chinese: Windows 更新状态 (PowerShell)




- Spanish: Estados de actualizaciones de Windows (PowerShell)

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- This sensor [requires](#)³⁵⁷³ that Remote PowerShell is enabled on the target system and PowerShell 3.0 on both the probe system and the target system.
- This sensor requires .NET 4.7.2 or later on the probe system.
- This sensor requires [credentials for Windows systems](#)⁴⁵² in the settings of the parent device.
- We recommend that you set the [scanning interval](#)³⁵⁷⁷ of this sensor to at least 12 hours to limit the load on the server that is monitored.
- This sensor supports the IPv6 protocol.
- The minimum scanning interval for this sensor is 1 hour.
- In certain cases, it might take some time until the sensor receives data for the first time.
- If the sensor cannot determine any values for the Time since last update channel (for example, because the list of updates is empty), it shows the value -1s and changes to the Warning [status](#)¹⁹⁷.
- When monitoring a [Remote Desktop Server \(RDS\) system](#) with the option Roaming Profiles enabled, this sensor creates a temporary user profile folder for each scanning interval. To minimize this effect, we recommend that you set the sensor's scanning interval to at least 7 days.
- See the Knowledge Base: [Where can I find more information about PowerShell sensors?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p> If the framework is missing, you cannot create this sensor.</p> <p> For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Remote PowerShell	<p>This sensor uses PowerShell commands. To monitor devices with this sensor, Remote PowerShell access must be enabled on the target computer. Also make sure that you have installed PowerShell 3.0 or later on both the probe system and the target system.</p> <p> If you receive an error message regarding issues with the WinRM connection, make sure that remote commands have been enabled in PowerShell. For more details, see the Knowledge Base: How do I enable and use remote commands in Windows PowerShell?</p>

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog box. It has a title bar 'Basic Sensor Settings' in blue. Below the title bar, there are three rows of settings:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A text input field containing 'exampletag' with a blue 'x' icon to the right and a plus sign icon to the far right.
- Priority**: A star rating system with five stars, all of which are filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ windowsupdatesstatus
Priority	Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Specific

Sensor Specific

Port **i** 5985

Port in SPN **i** Exclude port in SPN (default)
 Include port in SPN

Authentication Method **i** Kerberos authentication (default)
 Negotiate authentication

Sensor Specific

Setting	Description
Port	Enter the number of the port to which this sensor connects. Enter an integer value. The default port is 5985.
Port in SPN	<p>Define whether to include the port number in the Service Principal Name (SPN) used for Kerberos authentication, for example, on devices where Microsoft Internet Information Services (IIS) or similar services are installed.</p> <ul style="list-style-type: none"> ▪ Exclude port in SPN (default): Do not include the port number in the SPN. ▪ Include port in SPN: Include the port number in the SPN. <p>i With this option, a client that uses a non-default SPN can authenticate against a remote computer that uses Kerberos authentication.</p>
Authentication Method	Select the authentication method for the connection to the host via PowerShell. Choose between:

Setting	Description
	<ul style="list-style-type: none"> ▪ Kerberos authentication (default): The sensor uses Kerberos authentication. ▪ Negotiate authentication: The sensor uses Negotiate authentication. For more information about Negotiate authentication, see the Knowledge Base: Facing issues with the Windows Update Status (PowerShell) sensor - can you help me?

Debug Options

Debug Options

Result Handling ⓘ
 Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID].Data.txt, and Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p> ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

i This sensor has a fixed minimum scanning interval for performance reasons. You cannot run the sensor in shorter intervals than this minimum interval. Consequently, shorter scanning intervals as defined in the [Monitoring](#)⁴¹⁸⁷ settings are not available for this sensor.



Scanning Interval

 inherit from  Root

Scanning Interval **i** 60 seconds

If a Sensor Query Fails **i** Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none">▪ 30 seconds▪ 60 seconds▪ 5 minutes▪ 10 minutes▪ 15 minutes▪ 30 minutes▪ 1 hour▪ 4 hours▪ 6 hours▪ 12 hours▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p> <p> The minimum scanning interval for this sensor is 1 hour.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none">▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails.▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status.▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails.▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails.

Setting	Description
	<p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root

Schedule None



Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00)



Setting	Description
	<ul style="list-style-type: none"> ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies ⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>


Setting	Description
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

 inherit from  Root

User Group Access 	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>For more details on access rights, see section Access Rights Management.</p>

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Time Since Last Update	<p>The time passed since the last update</p> <p>i This channel is the primary channel by default.</p> <p>i The sensor always creates the channel Time Since Last Update. All other channels are optional and only show up if the sensor can retrieve respective data.</p>
Updates (Severity Critical) Hidden	The number of hidden updates with critical severity
Updates (Severity Critical) Installed	The number of installed updates with critical severity
Updates (Severity Critical) Missing	The number of missing updates with critical severity

Channel	Description
Updates (Severity Important) Hidden	The number of hidden updates with important severity
Updates (Severity Important) Installed	The number of installed updates with important severity
Updates (Severity Important) Missing	The number of missing updates with important severity
Updates (Severity Low) Hidden	The number of hidden updates with low severity
Updates (Severity Low) Installed	The number of installed updates with low severity
Updates (Severity Low) Missing	The number of missing updates with low severity
Updates (Severity Moderate) Hidden	The number of hidden updates with moderate severity
Updates (Severity Moderate) Installed	The number of installed updates with moderate severity
Updates (Severity Moderate) Missing	The number of missing updates with moderate severity
Updates (Unclassified) Hidden	The number of hidden updates with unclassified severity
Updates (Unclassified) Installed	The number of installed updates with unclassified severity
Updates (Unclassified) Missing	The number of missing updates with unclassified severity

More

■ KNOWLEDGE BASE

Where can I find more information about PowerShell sensors?

- <https://kb.paessler.com/en/topic/62451>

Which .NET version does PRTG require?

- <https://kb.paessler.com/en/topic/60543>

Part 7: Device and Sensor Setup | 8 Sensor Settings
248 Windows Updates Status (PowerShell) Sensor

How do I enable and use remote commands in Windows PowerShell?

- <https://kb.paessler.com/en/topic/44453>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

I have problems with the PowerShell Exchange sensors, what can I do?

- <https://kb.paessler.com/en/topic/54353>

My PowerShell sensor returns an error message. What can I do?

- <https://kb.paessler.com/en/topic/59473>

I get the error "WinRM cannot process the request" when I try to use a PowerShell sensor

- <https://kb.paessler.com/en/topic/59745>

How can I increase memory for Remote PowerShell?





- <https://kb.paessler.com/en/topic/61922>

Facing issues with the Windows Update Status (PowerShell) sensor - can you help me?

- <https://kb.paessler.com/en/topic/71899>

Sensor Settings Overview

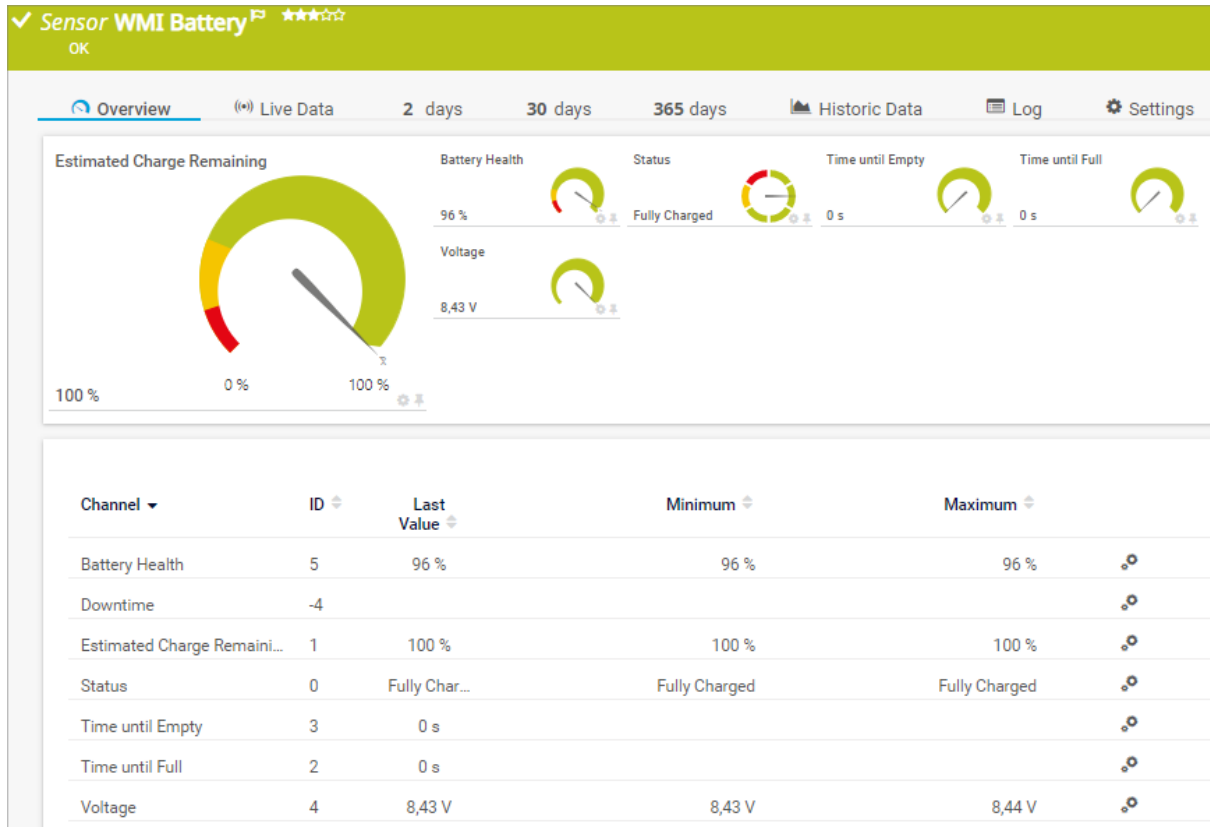
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.249 WMI Battery Sensor

The WMI Battery sensor monitors the available capacity and the state of connected batteries of a Windows-based device via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Battery Sensor

Sensor in Other Languages

- Dutch: WMI batterij
- French: Batterie de WMI
- German: WMI Batterie
- Japanese: WMI バッテリー
- Portuguese: Bateria WMI
- Russian: WMI
- Simplified Chinese: WMI 电池
- Spanish: Bateria WMI

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.

- This sensor requires [credentials for Windows systems](#) [452] in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports the IPv6 protocol.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#) [448].

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) [361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

WMI Battery Specific

Setting	Description
Batteries	<p>Select the batteries or uninterruptible power supplies (UPSs) that you want to monitor. PRTG creates one sensor for each battery or uninterruptible power supply (UPS) that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ x +

Priority ⓘ ★★★★★

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ batterysensor ▪ wmi batterysensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

WMI Battery Specific

WMI Battery Specific

Name **i** DELL DD9VF0A

WMI Battery Specific

Setting	Description
Name	Shows the name of the battery or the UPS that this sensor monitors.

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options

Result Handling **i**
 Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display


Sensor Display

Primary Channel **i** Downtime


Graph Type **i**
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>

Setting	Description
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None ▼

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Battery Health	The battery health in percent
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
Estimated Charge Remaining	The estimated remaining charge in percent  This channel is the primary channel by default.
Status	The status of the battery <ul style="list-style-type: none"> Up status¹⁹⁷¹: Charging, Discharging, Fully Charged, Unknown Warning status: Critical But Charging Down status: Critical But Discharging
Time Until Empty	The time until the battery is empty
Time Until Full	The time until the battery is fully charged
Voltage	The voltage in volts (V)

More

■ KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

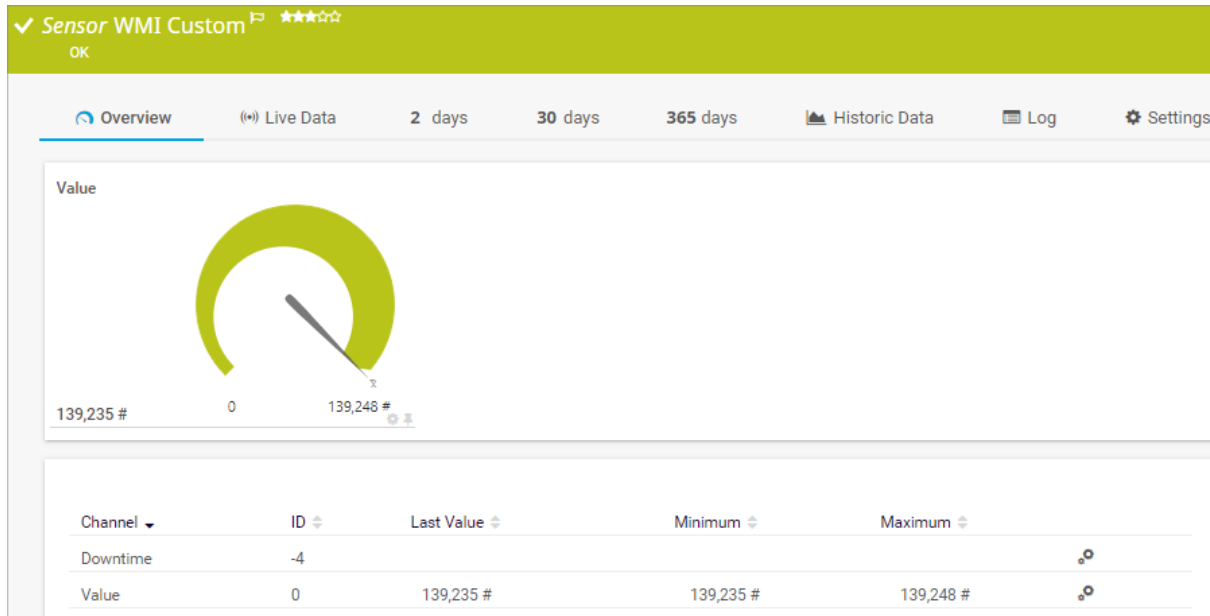
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.250 WMI Custom Sensor

The WMI Custom sensor performs a custom query via Windows Management Instrumentation (WMI) and monitors numeric values (integers and floats).

i If the WQL query returns strings, use the [WMI Custom String sensor](#)³⁶⁰⁸.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)³⁶⁰⁶.



WMI Custom Sensor

Sensor in Other Languages

- Dutch: WMI (Klant Specifiek)
- French: WMI (personnalisé)
- German: WMI (Benutzerdef.)
- Japanese: WMI カスタム
- Portuguese: WMI customizado
- Russian: WMI
- Simplified Chinese: WMI 自定义
- Spanish: WMI personalizado

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#)¹³⁰¹. Above this number, consider using multiple [remote probes](#)⁴⁵⁰³ for load balancing.
- This sensor requires [credentials for Windows systems](#)⁴⁵²¹ in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.

- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?](#)
- See the Knowledge Base: [How do I create a WMI Custom sensor?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#)³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Custom Query Specific

Setting	Description
Channel Name	<p>Enter a name for the channel in which PRTG shows the received data. PRTG shows this name in graphs and tables. Enter a string.</p> <p>i You can change the name later in the sensor's channel settings³⁹⁷⁷.</p>
WQL File	<p>Select a WQL file. The sensor executes it with every scanning interval.</p> <p>The list contains WQL scripts that are available in the \Custom Sensors\WMI WQL scripts subfolder of the PRTG program directory⁴⁵²⁶ on the probe system. Store your script there. If used on a cluster probe, you must store the file on all cluster nodes.</p> <p>i Your query must return an integer or float value. Strings are not supported. Use the WMI Custom String sensor³⁶⁰⁸ in this case.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ ⊕

Priority ⓘ ★★★★★

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> wmicustomsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

Custom Query Specific

Custom Query Specific

Namespace ⓘ

WQL File ⓘ

Placeholder <#PH1> ⓘ

Placeholder <#PH2> ⓘ

Placeholder <#PH3> ⓘ

If Value Changes ⓘ Ignore changes
 Trigger 'change' notification

Unit String ⓘ

Multiplication ⓘ

Division ⓘ

Custom Query Specific

Setting	Description
Namespace	Enter the WMI namespace for the query.
WQL File	Shows the WQL file that this sensor executes with every scanning interval. ⓘ Your query must return an integer or float value. Strings are not supported. Use the WMI Custom String sensor in this case. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Placeholder <#PH1>	In your WQL script, you can use up to three placeholders to which you can assign a value in this field. Enter a string for variable <#PH1> or leave the field empty.
Placeholder <#PH2>	In your WQL script, you can use up to three placeholders to which you can assign a value in this field. Enter a string for variable <#PH2> or leave the field empty.
Placeholder <#PH3>	In your WQL script, you can use up to three placeholders to which you can assign a value in this field. Enter a string for variable <#PH3> or leave the field empty.
If Value Changes	Define what the sensor does when the sensor value changes:

Setting	Description
	<ul style="list-style-type: none"> Ignore changes (default): Take no action on change. Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger⁴¹³⁸, you can use this mechanism to trigger a notification³⁹⁸⁷ whenever the sensor value changes.
Unit String	Enter a unit for the data that the sensor receives from your script. This is for display purposes only. The unit is displayed in graphs and tables. Enter a string.
Multiplication	Define a multiplier for the received values. The default value 1 does not change received values. Enter an integer value.
Division	Define a divisor for the received values. The default value 1 does not change received values. Enter an integer value.

Debug Options

Debug Options Result Handling ⓘ

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

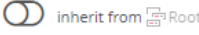
Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
	Scanning Interval ⓘ 60 seconds
	If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management.</p>

Channel List

❗ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
[Value]	<p>The retrieved numeric value</p> <p>❗ This channel is the primary channel by default.</p>

More

■ KNOWLEDGE BASE

Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?

▪ <https://kb.paessler.com/en/topic/75372>

How do I create a WMI Custom sensor?

▪ <https://kb.paessler.com/en/topic/2743>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How do I properly configure a WMI custom sensor?

- <https://kb.paessler.com/en/topic/163>

Which WQL queries are used by the PRTG WMI sensors?





- <https://kb.paessler.com/en/topic/8783>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

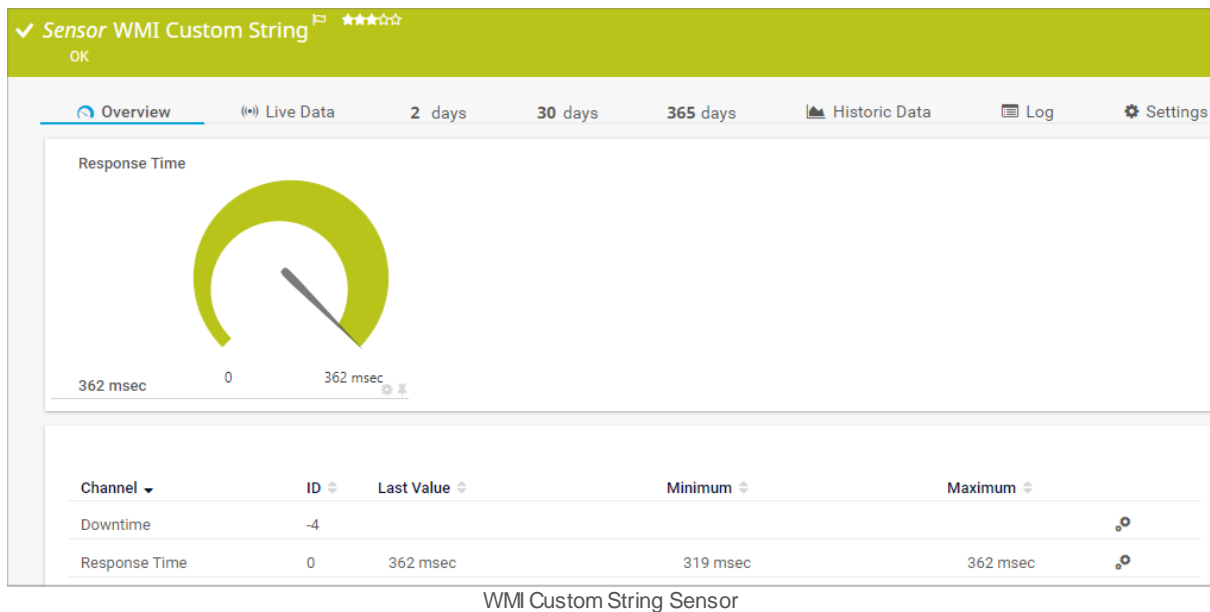
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.251 WMI Custom String Sensor

The WMI Custom String sensor performs a custom string query via Windows Management Instrumentation (WMI).

- ❶ The sensor can also show the retrieved string value in the sensor message.
- ❷ If the WQL query returns numeric values, use the [WMI Custom sensor](#).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Sensor in Other Languages

- Dutch: WMI Aangepaste Tekenreeks
- French: Chaîne personnalisée WMI
- German: WMI Text (benutzerdef.)
- Japanese: WMI カスタム文字列
- Portuguese: Sequência de caracteres personalizada WMI
- Russian: WMI
- Simplified Chinese: WMI 自定义字符串
- Spanish: WMI cadena personalizada

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.

- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?](#)
- See the Knowledge Base: [How do I create a WMI Custom sensor?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Custom Query Specific

Setting	Description
WQL File	<p>Select a WQL file. The sensor executes it with every scanning interval.</p> <p>The list contains WQL scripts that are available in the \Custom Sensors\WMI WQL scripts subfolder of the PRTG program directory on the probe system. Store your script there. If used on a cluster probe, you must store the file on all cluster nodes.</p> <p>i If the WQL query returns integers or floats, use the WMI Custom sensor to not only show the returned value in the sensor message, but to also monitor the value in a channel.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ X +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmicustomsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Custom Query Specific

Custom Query Specific

Namespace ⓘ

WQL File ⓘ

Placeholder <#PH1> ⓘ

Placeholder <#PH2> ⓘ

Placeholder <#PH3> ⓘ

Unit String ⓘ

If Value Changes ⓘ Ignore changes
 Trigger 'change' notification

Response Must Include ⓘ

Search Method ⓘ Simple string search
 Regular expression

Response Must Not Include ⓘ

Search Method ⓘ Simple string search
 Regular expression

Maximum Length of String ⓘ

Extract Number Using Regular Expression ⓘ No extraction
 Extract a numeric value using a regular expression

Result Handling ⓘ Discard result
 Store result

Custom Query Specific

Setting	Description
Namespace	Enter the WMI namespace for the query. .
WQL File	Shows the WQL file that this sensor executes with every scanning interval. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Setting	Description
	<p> If the WQL query returns integers or floats, use the WMI Custom sensor ³⁵⁹⁶ to not only show the returned value in the sensor message, but to also monitor the value in a channel.</p>
Placeholder <#PH1>	In your WQL script, you can use up to three placeholders to which you can assign a value in this field. Enter a string for variable <#PH1> or leave the field empty.
Placeholder <#PH2>	In your WQL script, you can use up to three placeholders to which you can assign a value in this field. Enter a string for variable <#PH2> or leave the field empty.
Placeholder <#PH3>	In your WQL script, you can use up to three placeholders to which you can assign a value in this field. Enter a string for variable <#PH3> or leave the field empty.
Unit String	Enter a unit for the data that the sensor receives from your script. This is for display purposes only. The unit is displayed in graphs and tables. Enter a string.
If Value Changes	<p>Define what the sensor does when the sensor value changes:</p> <ul style="list-style-type: none"> ▪ Ignore changes (default): Take no action on change. ▪ Trigger 'change' notification: Send an internal message indicating that the sensor value has changed. In combination with a change trigger ⁴¹³⁸, you can use this mechanism to trigger a notification ³⁹⁸⁷ whenever the sensor value changes.
Response Must Include (Down Status if Not Included)	<p>Define the search string that must be part of the data that is received from the WMI object. You can enter a simple string in plain text or a regular expression ⁴⁴⁹⁷.</p> <p> The search string must be case sensitive.</p> <p> If the data does not include the search pattern, the sensor shows the Down status.</p>
Response Must Not Include (Down Status if Included)	<p>Define the search string that must not be part of the data that is received from the WMI object. You can enter a simple string in plain text or a regular expression.</p> <p> The search string must be case sensitive.</p> <p> If the data does include the search pattern, the sensor shows the Down status.</p>
Search Method	<p>Define the method with which you want to provide the search string:</p> <ul style="list-style-type: none"> ▪ Simple string search: Search for a simple string in plain text.

Setting	Description
	<p>i The characters <code>*</code> and <code>?</code> work as placeholders. <code>*</code> stands for no number or any number of characters and <code>?</code> stands for exactly one character. You cannot change this behavior. The literal search for these characters is only possible with a regex.</p> <ul style="list-style-type: none"> Regular expression: Search with a regular expression (regex). <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p>
Maximum Length of String	Define the maximum allowed length of the string that is received from the WMI object. If it is longer than this value, the sensor shows the Down status. Enter an integer value or leave the field empty.
Extract Number Using Regular Expression	<p>Define if you want to filter out a numeric value from the string received from the WMI object. You can convert this into a float value to use it with channel limits³⁹⁷⁸.</p> <ul style="list-style-type: none"> No extraction: Do not extract a float value. Use the result as a string value. Extract a numeric value using a regular expression: Use a regex to identify a numeric value in the string and convert it to a float value. Define below. <ul style="list-style-type: none"> See also the example³⁶¹⁹.
Regular Expression	<p>This setting is only visible if you select Extract a numeric value using a regular expression above. Enter a regex to identify the numeric value you want to extract from the string returned by the WMI object. You can use capturing groups here.</p> <p>i Make sure that the expression returns numbers only (including decimal and thousands separators). The result is further refined by the settings below.</p> <p>i PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section Regular Expressions⁴⁴⁹⁷.</p>
Index of Capturing Group	This setting is only visible if you select Extract a numeric value using a regular expression above. If your regex uses capturing groups, specify which group is used to capture the number. Enter an integer value or leave the field empty.
Decimal Separator	This setting is only visible if you select Extract a numeric value using a regular expression above. Define which character to use as decimal separator for the number extracted above. Enter a string or leave the field empty.

Setting	Description
Thousands Separator	This setting is only visible if you select Extract a numeric value using a regular expression above. Define which character to use as thousands separator for the number extracted above. Enter a string or leave the field empty.
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel **ⓘ** Downtime


Graph Type **ⓘ** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Example: Number Extraction with Regular Expression

If you want to extract a number in the response string via a regex, note that the index for captures in this sensor is based on 1 (not on 0). Furthermore, capturing groups are not automatically created. The example below illustrates this issue.

Consider the following string as returned by a request for CPU usage:

```
5 Sec (3.49%), 1 Min (3.555%), 5 Min (3.90%)
```

Assuming you would like to filter for the number 3.555, this is the percentage in the second parentheses. Enter the following regex in the Regular Expression field:

```
(\d+\.\d+).*?(\d+\.\d+).*?(\d+\.\d+)
```

As Index of Capturing Group, enter 3. This extracts the desired number 3.555.

The index must be 3 in this case because the capturing groups here are the following:

- Group 1 contains 3.49%, 1 Min (3.555), 5 Min (3.90)

- Group 2 contains [3.49](#)
- Group 3 contains [3.555](#)
- Group 4 contains [3.90](#)

Keep this note about index and capturing groups in mind when using number extraction.

- i** It is not possible to match an empty string with the PRTG regex sensor search.
- i** PRTG supports Perl Compatible Regular Expression (PCRE) regex. For more details, see section [Regular Expressions](#) ⁴⁴⁹⁷.

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Response Time	The response time in milliseconds (msec) i This channel is the primary channel by default.

More

■ KNOWLEDGE BASE

Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?

- <https://kb.paessler.com/en/topic/75372>

How do I create a WMI Custom sensor?

- <https://kb.paessler.com/en/topic/2743>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>



My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

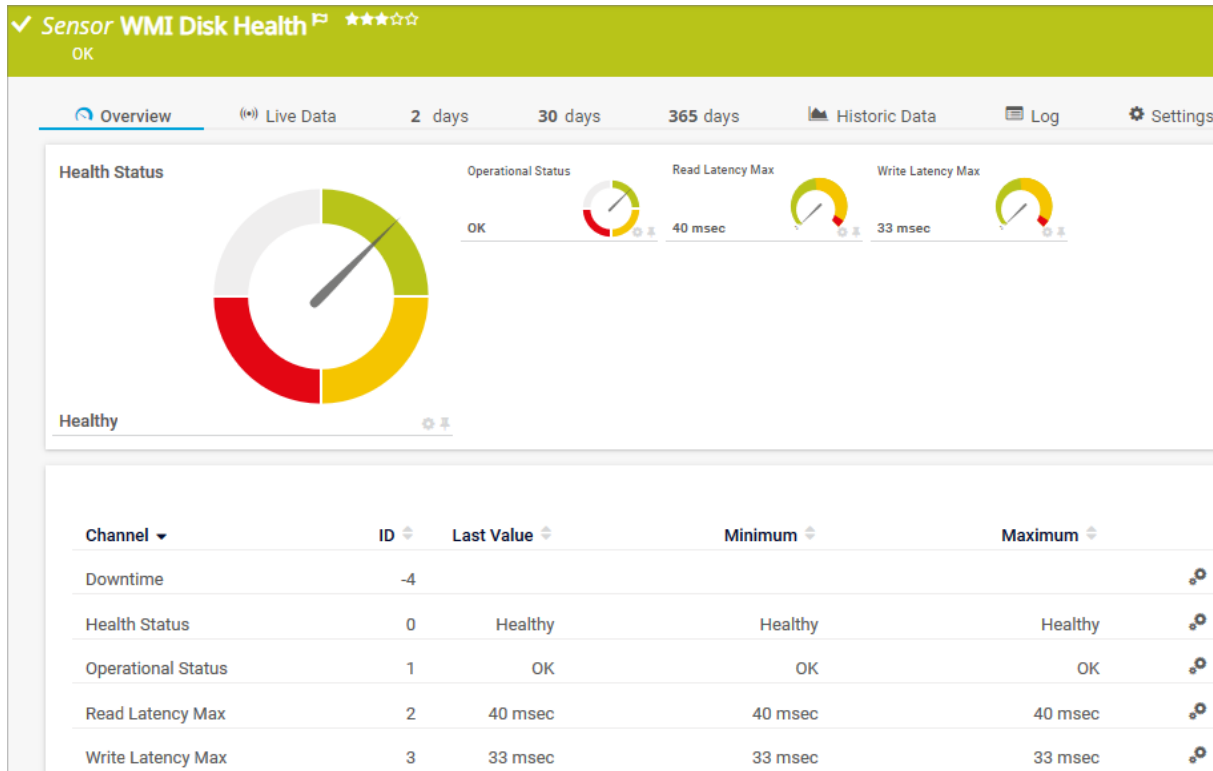
- [List of Available Sensor Types](#) ⁴³⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#) ³⁹⁷²

- [Channel Settings](#) 
- [Notification Triggers Settings](#) 

7.8.252 WMI Disk Health Sensor

The WMI Disk Health sensor monitors the health of a physical disk on a Windows system via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Disk Health Sensor

Sensor in Other Languages

- Dutch: WMI schijfstatus
- French: État de disque WMI
- German: WMI Laufwerkszustand
- Japanese: WMI ディスクの正常性
- Portuguese: Funcionamento do disco WMI
- Russian: WMI
- Simplified Chinese: WMI 磁盘运行状况
- Spanish: Estado de disco WMI

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.

- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports Windows 8 or Windows Server 2012 or later on the target system.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

WMI Disk Health Specific

Setting	Description
Disk	<p>Select the disks that you want to monitor. PRTG creates one sensor for each disk that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name i

Tags i ✕ +

Priority i ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree [183], as well as in alarms [228], logs [237], notifications [403], reports [409], maps [406], libraries [407], and tickets [240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags [145] that the sensor inherits [145] from its parent device [140], parent group [139], and parent probe [139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited [145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmidiskhealthsensor ▪ diskhealthsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) [446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

WMI Disk Health Specific

WMI Disk Health Specific	
Friendly Name i	SK hynix SC300 M.2 2280 256GB, 0
Timeout (Sec.) i	60

WMI Disk Health Specific

Setting	Description
Friendly Name	Shows a user-friendly name for the physical disk.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

Debug Options

Debug Options

Result Handling **i**

 Discard result

 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display




Primary Channel **i** Downtime

Graph Type **i**


 Show channels independently (default)

 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

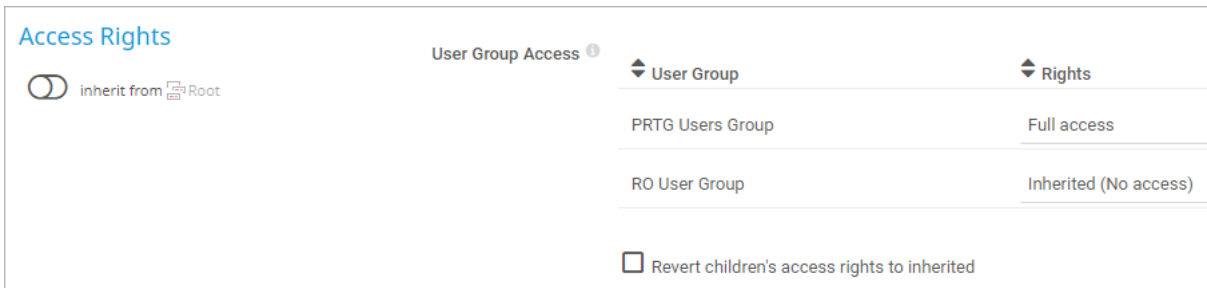
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights


Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**


Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Flush Latency Max	The maximum flush latency in milliseconds (msec)
Health Status	<p>The health status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Healthy ▪ Warning status: Warning ▪ Down status: Unhealthy ▪ Unknown status: Unknown <p> This channel is the primary channel by default.</p>
Operational Status	<p>The operational status</p> <ul style="list-style-type: none"> ▪ Up status: OK ▪ Warning status: Warning ▪ Down status: Error ▪ Unknown status: Starting
Read Latency Max	The maximum read latency in msec
Write Latency Max	The maximum write latency in msec

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷

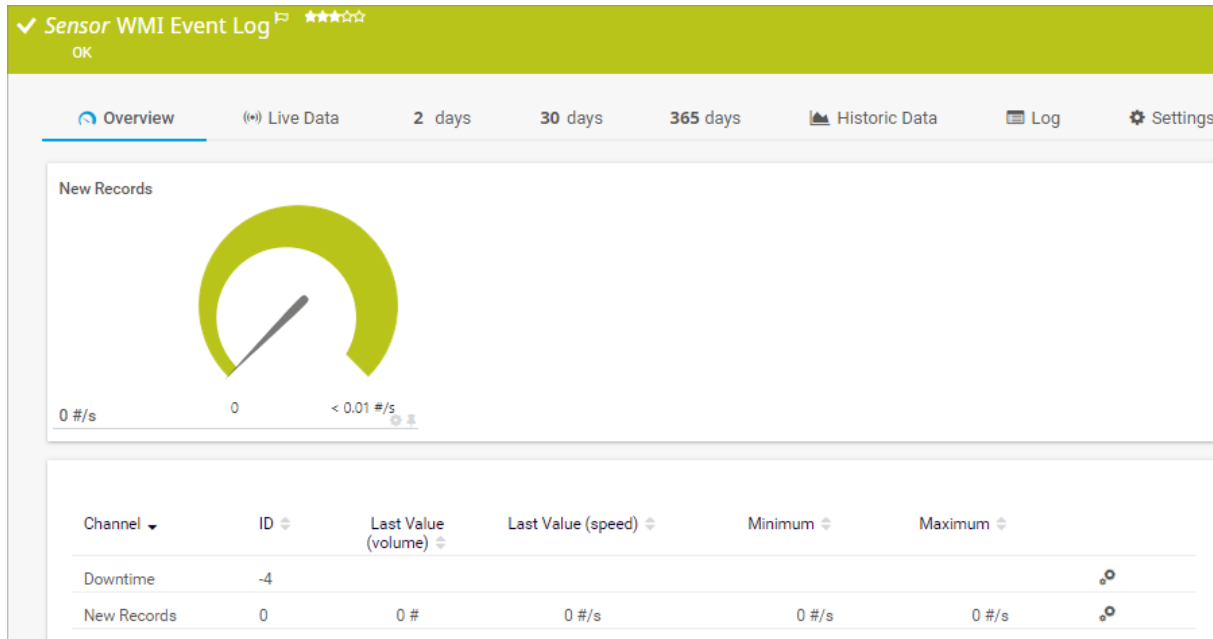
- [Notification Triggers Settings](#) 

7.8.253 WMI Event Log Sensor

The WMI Event Log sensor monitors a Windows logfile via Windows Management Instrumentation (WMI).

i You can individually set the sensor to a specific status according to a new event log entry.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Event Log Sensor

Sensor in Other Languages

- Dutch: WMI Logboek
- French: Log des événements WMI
- German: WMI Ereignisprotokoll
- Japanese: WMI イベントログ
- Portuguese: Log de eventos WMI
- Russian: WMI
- Simplified Chinese: WMI 事件日志
- Spanish: Registro de eventos WMI

Remarks

- This sensor has a very high performance impact. Use it with care. We recommend that you use no more than 50 sensors of this sensor type on each probe.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.

- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [My Event Log sensor ignores changes in the event log. What can I do?](#)
- See the Knowledge Base: [How can I configure sensors using speed limits to keep the status for more than one interval?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

WMI Event Log Monitor

Setting	Description
Log Files	<p>Select the log files that you want to monitor. PRTG creates one sensor for each log file that you select.</p> <p>ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ ⊕

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmieventlogsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

WMI Event Log Monitor

WMI Event Log Monitor

Log File **i**

Result Handling **i**

Application

Discard result

Store result

WMI Event Log Monitor

Setting	Description
Log File	<p>Shows the Windows log file that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none">▪ Discard result: Do not store the sensor result.▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Filter Event Log Entries

- For details and how to find out the correct filter, see the Knowledge Base: [My Event Log sensor ignores changes in the event log. What can I do?](#)

Filter Event Log Entries

Event Type ⓘ Any
 Error
 Warning
 Information
 Security Audit Success
 Security Audit Failure

Filter by Source ⓘ Off
 On

Filter by ID ⓘ Off
 On

Filter by Category ⓘ Off
 On

Filter by User ⓘ Off
 On

Filter by Computer ⓘ Off
 On

Filter by Message ⓘ Off
 On

Filter Event Log Entries

Setting	Description
Event Type	<p>Specify the type of event that this sensor processes:</p> <ul style="list-style-type: none"> ▪ Any ▪ Error ▪ Warning ▪ Information ▪ Security Audit Success ▪ Security Audit Failure <p> ⓘ The sensor cannot process other event types.</p>

Setting	Description
Filter by Source	<p>Filter all events for a certain event source:</p> <ul style="list-style-type: none"> ▪ Off: Do not filter by event source. ▪ On: Filter by event source. <ul style="list-style-type: none"> ⓘ If you enable this option, this sensor only processes messages that match the value that you define below.
Filter Type	<p>This setting is only visible if you enable Filter by Source above. Select the filter type:</p> <ul style="list-style-type: none"> ▪ Include filter: Include the specified value and disregard all other values. ▪ Exclude filter: Exclude the specified value and regard all other values.
Match String (Event Source)	<p>This setting is only visible if you enable Filter by Source above. Enter an event source that you want to filter for. Depending on the kind of filter, the sensor either processes the event source (Include filter option) or it does not process it (Exclude filter option). Enter a string.</p>
Filter by ID	<p>Filter all events for a certain event ID:</p> <ul style="list-style-type: none"> ▪ Off: Do not filter by event ID. ▪ On: Filter by event ID. <ul style="list-style-type: none"> ⓘ If you enable this option, this sensor only processes messages that match the value that you define below.
Filter Type	<p>This setting is only visible if ID filtering is On above. Select a filter type:</p> <ul style="list-style-type: none"> ▪ Include filter: Include the specified value and disregard all other values. ▪ Exclude filter: Exclude the specified value and regard all other values.
Match Values (Event ID)	<p>This setting is only visible if you enable Filter by ID above. Enter an event ID that you want to filter for. Depending on the kind of filter, the sensor either processes the event ID (Include filter option) or it does not process it (Exclude filter option).</p> <p>ⓘ The WMI Event Log sensor supports filtering for only one ID.</p>
Filter by Category	<p>Filter all events for a certain event category:</p> <ul style="list-style-type: none"> ▪ Off: Do not filter by event category. ▪ On: Filter by event category. <ul style="list-style-type: none"> ⓘ If you enable this option, this sensor only processes messages that match the value that you define below.
Filter Type	<p>This setting is only visible if you enable Filter by Category above. Select a filter type:</p> <ul style="list-style-type: none"> ▪ Include filter: Include the specified value and disregard all other values.

Setting	Description
	<ul style="list-style-type: none"> Exclude filter: Exclude the specified value and regard all other values.
Match String (Event Category)	This setting is only visible if you enable Filter by Category above. Enter a category that you want to filter for. Depending on the kind of filter, the sensor either processes the event category (Include filter option) or it does not process it (Exclude filter option). Enter a string.
Filter by User	Filter all received events for a certain event user: <ul style="list-style-type: none"> Off: Do not filter by event user. On: Filter by event user. <ul style="list-style-type: none"> i If you enable this option, this sensor only processes messages that match the value that you define below.
Filter Type	This setting is only visible if you enable Filter by User above. Select a filter type: <ul style="list-style-type: none"> Include filter: Include the specified value and disregard all other values. Exclude filter: Exclude the specified value and regard all other values.
Match String (Event User)	This setting is only visible if you enable Filter by User above. Enter a user name that you want to filter for. Depending on the kind of filter, the sensor either processes the event user (Include filter option) or it does not process it (Exclude filter option). Enter a string.
Filter by Computer	Filter all received events for a certain event computer: <ul style="list-style-type: none"> Off: Do not filter by event computer. On: Filter by event computer. <ul style="list-style-type: none"> i If you enable this option, this sensor only processes messages that match the value that you define below.
Filter Type	This setting is only visible if you enable Filter by Computer above. Select a filter type: <ul style="list-style-type: none"> Include filter: Include the specified value and disregard all other values. Exclude filter: Exclude the specified value and regard all other values.
Match String (Event Computer)	This setting is only visible if you enable Filter by Computer above. Enter a computer name that you want to filter for. Depending on the kind of filter, the sensor either processes the event computer (Include filter option) or it does not process it (Exclude filter option). Enter a string.
Filter by Message	Filter all received events for a certain event message: <ul style="list-style-type: none"> Off: Do not filter by event message.

Setting	Description
	<ul style="list-style-type: none"> On: Filter by event message. <ul style="list-style-type: none"> i If you enable this option, this sensor only processes messages that match the value that you define below.
Filter Type	<p>This setting is only visible if you enable Filter by Message above. Select a filter type:</p> <ul style="list-style-type: none"> Include filter: Include the specified value and disregard all other values. Exclude filter: Exclude the specified value and regard all other values.
Match String (Event Message)	<p>This setting is only visible if message filtering is On above. Enter a message that you want to filter for. Depending on the kind of filter, the sensor either processes the event message (Include filter option) or it does not process it (Exclude filter option). Enter a string.</p> <ul style="list-style-type: none"> i You must use the percent sign (%) as wildcard for any or no character if you want to check if the string is part of the message. Otherwise, the whole event message must match the string. For example, you can enter %RAS% for any event source that contains the string RAS.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)


Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <ul style="list-style-type: none"> i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none"> i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).

Setting	Description
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 24 hours <p> i You can change the available intervals in the system administration on PRTG on premises installations. </p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p> i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply. </p> <p> i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply. </p> <p> i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply. </p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
New Records	The number of new records per second This channel is the primary channel by default.

More

KNOWLEDGE BASE

My Event Log sensor ignores changes in the event log. What can I do?

- <https://kb.paessler.com/en/topic/59803>

How can I configure sensors using speed limits to keep the status for more than one interval?

- <https://kb.paessler.com/en/topic/73212>

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

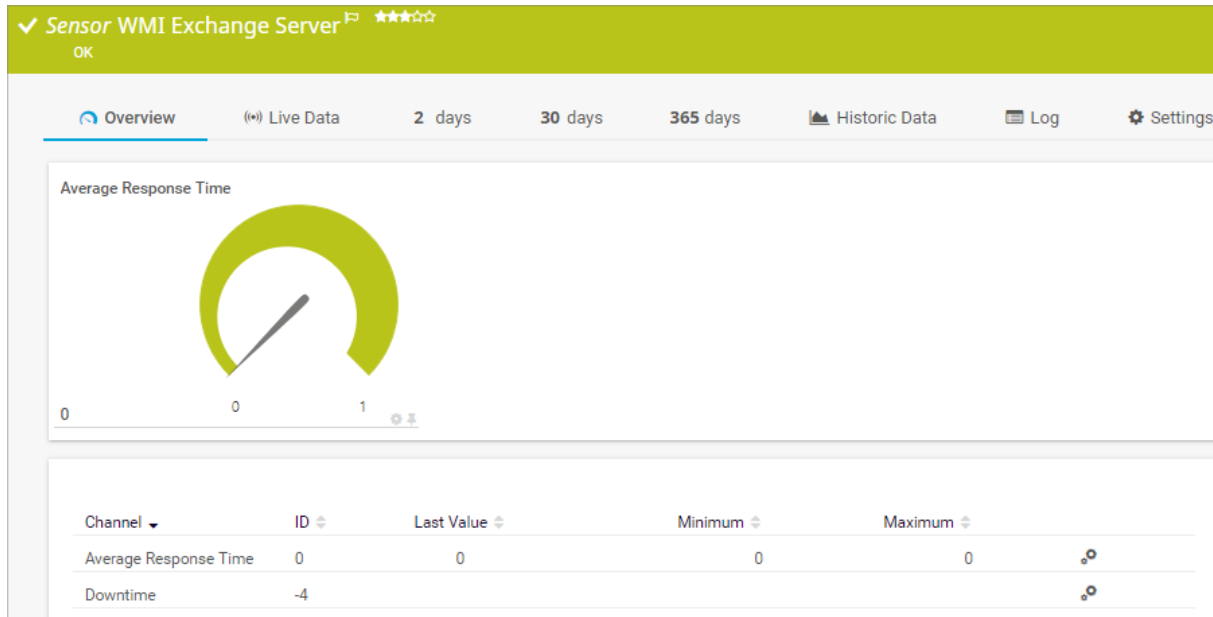
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.254 WMI Exchange Server Sensor

The WMI Exchange Server sensor monitors a Microsoft Exchange Server 2003 or later via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Exchange Server Sensor

Sensor in Other Languages

- Dutch: WMI Exchange Server
- French: Exchange Server WMI
- German: WMI Exchange-Server
- Japanese: WMI Exchange サーバー
- Portuguese: Exchange Server WMI
- Russian: WMI Exchange Server
- Simplified Chinese: WMI Exchange 服务器
- Spanish: WMI servidor Exchange

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports the IPv6 protocol.

i Former WMI Exchange Server **2003/2007** sensors from previous PRTG versions continue to monitor your Exchange server in PRTG 9, but newly added Exchange server sensors are WMI Exchange Server sensors that can monitor Exchange servers regardless of their version.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Exchange Server Data Readings Accessible Using WMI

Setting	Description
Performance Counters	<p>Select the performance counters of the Exchange server that you want to monitor. PRTG creates one sensor for each performance counter that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p> <p>The available options depend on your Exchange server configuration. PRTG shows all possible performance counters with the name and instance description (if available).</p> <p>You might be able to select aspects regarding:</p> <ul style="list-style-type: none"> ▪ SMTP Server: Queue Lengths ▪ MSEXchangeIS Mailbox: Queue Sizes, Delivery Times, Operations, Messages ▪ MSEXchangeIS Public: Queue Sizes, Delivery Times, Operations, Messages ▪ MSEXchangeIS: Packets, Operations, Clients, Latency, Requests, Users ▪ MSEXchange RPC Client Access: Active User Count, User Count, Connection Count ▪ MSEXchange OWA: Current Unique Users, Average Response Time <p>i Depending on your Exchange server version, not all counters might be available.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> wmiexchangeserversensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Exchange Server Data Readings Accessible Using WMI

Exchange Server Data Readings Accessible Using WMI

Display Name ⓘ *MSEExchange OWA: Average Response Time*

Instance ⓘ

WMI Class ⓘ *Win32_PerfRawData_MSEExchangeOWA_MSEExchangeOWA*

Counter ⓘ *AverageResponseTime*

Time Stamp ⓘ

Time Frequency ⓘ

Counter Type ⓘ *PERF_COUNTER_RAWCOUNT*

Result Handling ⓘ Discard result
 Store result

Exchange Server Data Readings Accessible Using WMI

Setting	Description
Display Name	Shows the display name that the sensor uses to query data from the target device. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Instance	Shows the instance that the sensor uses to query data from the target device. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
WMI Class	Shows the WMI class that the sensor uses to query data from the target device. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Counter	Shows the counter that the sensor uses to query data from the target device. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Setting	Description
Time Stamp	Shows the time stamp that the sensor uses to query data from the target device. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Time Frequency	Shows the time frequency that the sensor uses to query data from the target device. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Counter Type	Shows the counter type that the sensor uses to query data from the target device. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

Sensor Display




Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.

Setting	Description
	<p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

 inherit from  Root

Scanning Interval  60 seconds

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds

Setting	Description
	<ul style="list-style-type: none"> ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p>

Setting	Description
	<p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root


Schedule **i** None

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p>


Setting	Description
Maintenance Begins	<ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p>i To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Active User Count	The number of active users
Average Response Time	The average response time (OWA)
Connection Count	The number of connections
Current Unique Users	The number of current unique users (OWA)
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
RPC Requests Failed	The number of failed remote procedure call (RPC) requests
RPC Requests Outstanding	The number of outstanding RPC requests
RPC Requests Sent	The number of sent RPC requests
RPC Slow Requests	The number of slow RPC requests
User Count	The number of users

More

■ KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

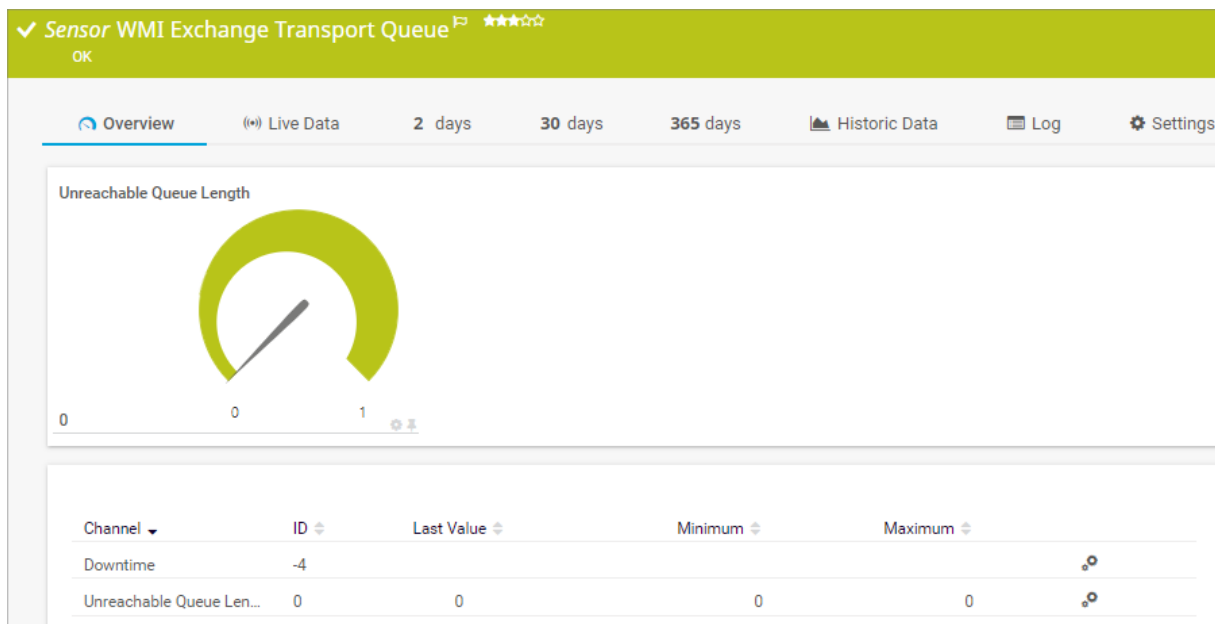
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3997

7.8.255 WMI Exchange Transport Queue Sensor

The WMI Exchange Transport Queue sensor monitors the length of transport queues of a Microsoft Exchange Server 2003 or later via Windows Management Instrumentation (WMI). It shows the same information as in Windows System Monitor [perfmon](#).

For an explanation of transport queue types, see the Knowledge Base: [What types of Exchange transport queues are there?](#)

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Exchange Transport Queue Sensor

Sensor in Other Languages

- Dutch: WMI Exchange Transport Wachtrij
- French: File d'attente de transport WMI Exchange
- German: WMI Exchange Transportwarteschlange
- Japanese: WMI Exchange 転送キュー
- Portuguese: Exchange Fila de transporte WMI
- Russian: WMI Exchange
- Simplified Chinese: WMI Exchange 传输队列
- Spanish: Cola de transporte WMI Exchange

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.

- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [What types of Exchange transport queues are there?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

WMI Exchange Transport Queue Specific

Setting	Description
Transport Queues	<p>Select the transport queues that you want to monitor. PRTG creates one sensor for each transport queue that you select.</p> <ul style="list-style-type: none"> ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. ⓘ The available options depend on your Exchange server configuration. PRTG shows all possible queues with names and instance descriptions (if available). ⓘ For performance reasons, we recommend that you only select necessary items.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ X +

Priority ⓘ ★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiexchangeservertransportqueuesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

WMI Exchange Transport Queue Specific

WMI Exchange Transport Queue Specific

Display Name ⓘ *Active Mailbox Delivery Queue Length*

Instance ⓘ *_total*

WMI Class ⓘ *Win32_PerfRawData_MSExchangeTransportQueues_MSExchangeTransportQueues*

Counter ⓘ *ActiveMailboxDeliveryQueueLength*

Time Stamp ⓘ

Time Frequency ⓘ

Counter Type ⓘ *PERF_COUNTER_RAWCOUNT*

Result Handling ⓘ Discard result
 Store result

WMI Exchange Transport Queue Specific

Setting	Description
Display Name	Shows the display name that the sensor uses to query data from the target device. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Instance	Shows the instance that the sensor uses to query data from the target device. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
WMI Class	Shows the WMI class that the sensor uses to query data from the target device. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Counter	Shows the counter that the sensor uses to query data from the target device. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Time Stamp	Shows the time stamp that the sensor uses to query data from the target device. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Time Frequency	Shows the time frequency that the sensor uses to query data from the target device.

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Counter Type	<p>Shows the counter type that the sensor uses to query data from the target device.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>


Sensor Display

Sensor Display

Primary Channel **i** Downtime


Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷).</p>
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁵ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None ▼

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Active Mailbox Delivery Queue Length	The number of items in the active mailbox delivery queue
Active Non-SMTP Delivery Queue Length	The number of items in the non-SMTP delivery queue

Channel	Description
Active Remote Delivery Queue Length	The number of items in the active remote delivery queue
Aggregate Delivery Queue Length (All Queues)	The number of items in the aggregate delivery queue (all queues)
Aggregate Shadow Queue Length	The number of items in the aggregate shadow queue
Categorizer Job Availability	The categorizer job availability
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Items Completed Delivery Per Second	The number of items with completed delivery per second
Items Completed Delivery Total	The number of items with completed delivery in total
Items Deleted By Admin Total	The number of items deleted by the admin in total
Items Queued For Delivery Expired Total	The number of items expired queued for delivery in total
Items Queued for Delivery Per Second	The number of items queued for delivery per second
Items Queued For Delivery Total	The number of items queued for delivery in total
Items Resubmitted Total	The number of items resubmitted in total
Largest Delivery Queue Length	The largest number of items in the delivery queue
Messages Completed Delivery Per Second	The number of messages with completed delivery per second
Messages Completed Delivery Total	The number of messages with completed delivery in total

Channel	Description
Messages Completing Categorization	The number of messages completing categorization
Messages Deferred Due To Local Loop	The number of messages deferred due to local loop
Messages Deferred During Categorization	The number of messages deferred during categorization
Messages Queued For Delivery	The number of messages queued for delivery
Messages Queued for Delivery Per Second	The number of messages queued for delivery per second
Messages Queued For Delivery Total	The number of messages queued for delivery in total
Messages Submitted Per Second	The number of messages submitted per second
Messages Submitted Total	The number of messages submitted in total
Poison Queue Length	The number of items in the poison queue
Retry Mailbox Delivery Queue Length	The number of items in the retry mailbox delivery queue
Retry Non-SMTP Delivery Queue Length	The number of items in the retry non-SMTP delivery queue
Retry Remote Delivery Queue Length	The number of items in the retry remote delivery queue
Shadow Queue Auto Discards Total	The number of auto discards in the shadow queue in total
Submission Queue Items Expired Total	The number of items expired in the submission queue in total
Submission Queue Length	The number of items in the submission queue

Channel	Description
Unreachable Queue Length	The number of items in the unreachable queue

More

KNOWLEDGE BASE

What types of Exchange transport queues are there?

- <https://kb.paessler.com/en/topic/55413>

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

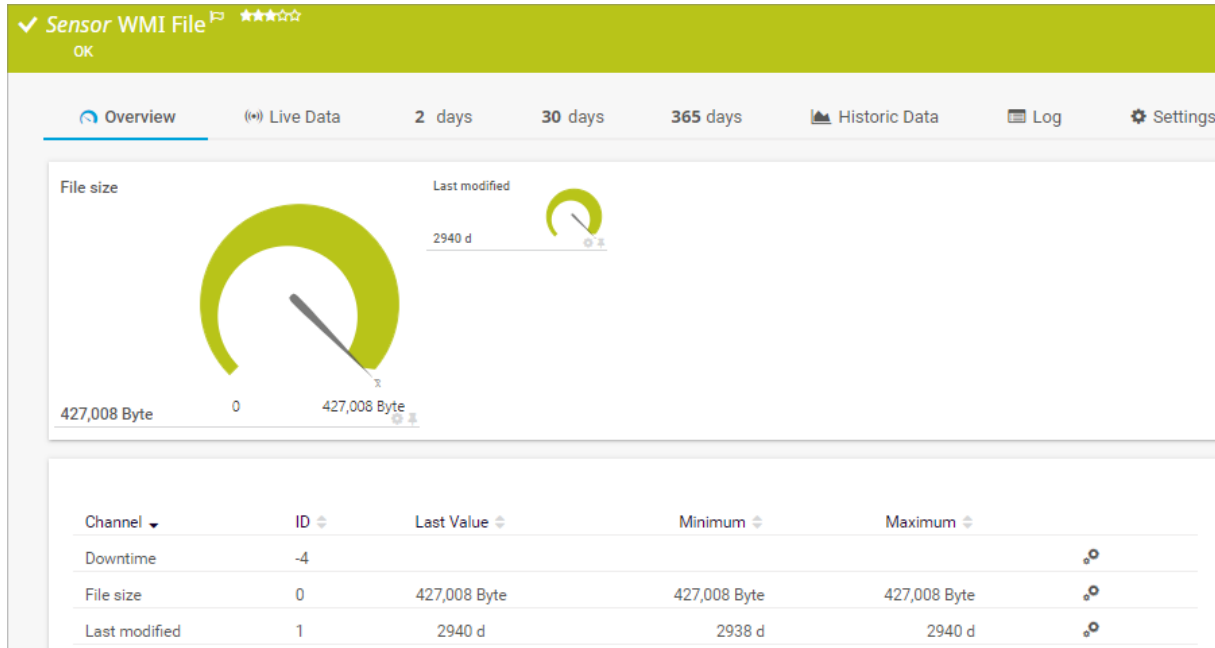
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3867

7.8.256 WMI File Sensor

The WMI File sensor monitors a file via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI File Sensor

Sensor in Other Languages

- Dutch: WMI Bestand
- French: Fichier WMI
- German: WMI Datei
- Japanese: WMI ファイル
- Portuguese: Arquivo WMI
- Russian: WMI
- Simplified Chinese: WMI 文件
- Spanish: WMI archivo

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections: 'Sensor Name' with the value 'Example Name', 'Tags' with a list containing 'exampletag', and 'Priority' set to 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmifilesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ⁴⁴⁶ for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

WMI File Monitor

WMI File Monitor

File Name ⁱ C:\Windows\regedit.exe

If Time Stamp Changes ⁱ Ignore changes
 Trigger 'change' notification

WMI File Monitor

Setting	Description
File Name	<p>Enter the name of the file that you want to monitor. Enter the full local path. The file must exist on the probe system.</p> <p>i The sensor does not support Universal Naming Convention (UNC) paths.</p>
If Time Stamp Changes	<p>Define what the sensor does when the time stamp of the file changes:</p> <ul style="list-style-type: none"> ▪ Ignore changes (default): Do not take action on change. ▪ Trigger 'change' notification: Send an internal message that indicates that the time stamp has changed. In combination with a change trigger ⁴¹³⁸, you can use this mechanism to trigger a notification ³⁹⁸⁷ whenever the time stamp changes.

Debug Options

Debug Options

Result Handling ⓘ

Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ

Downtime

Graph Type ⓘ

Show channels independently (default)


Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB ▾
	kbit ▾
	/ ▾
	sec... ▾
Bytes (Memory)	MB ▾
Bytes (Disk)	MB ▾
Bytes (File)	Byte ▾


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
File Size	The file size in bytes

Channel	Description
	 This channel is the primary channel by default.
Last Modified	The time since the last modification of the file

More

■ KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

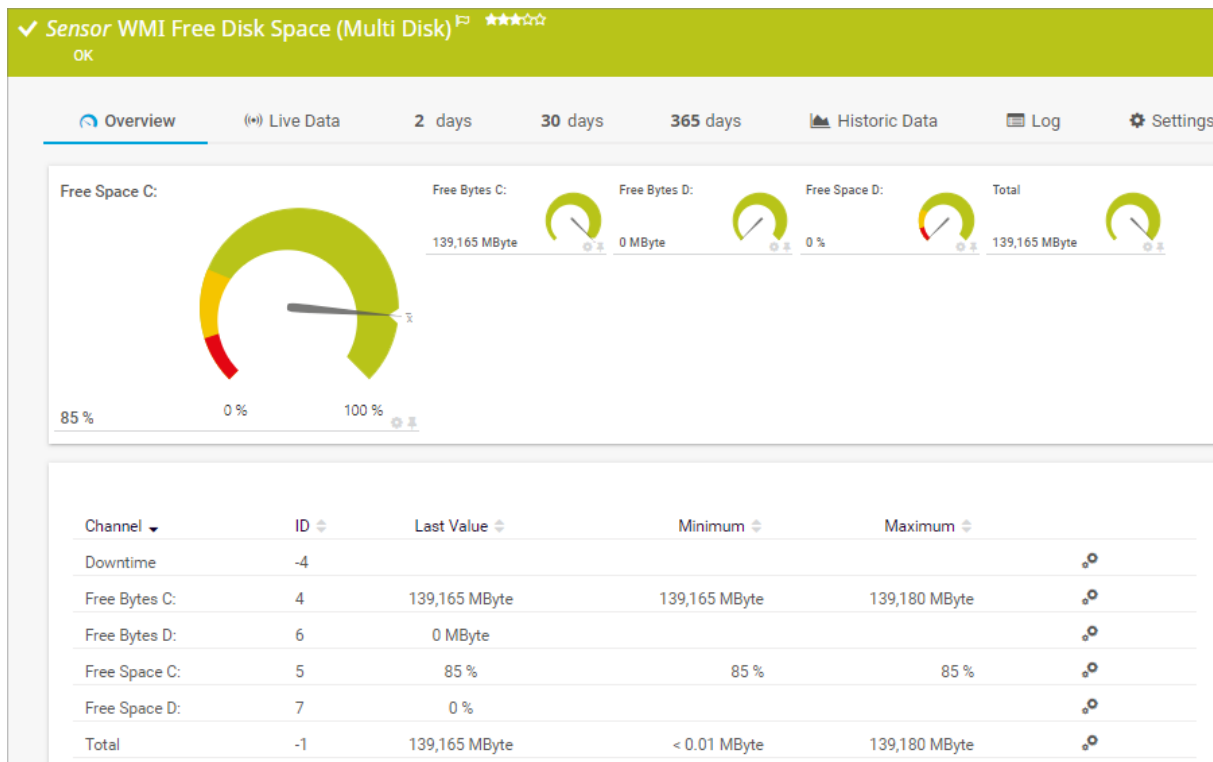
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.257 WMI Free Disk Space (Multi Disk) Sensor

The WMI Free Disk Space (Multi Disk) sensor monitors the free disk space of one or more drives via Windows Management Instrumentation (WMI).

i The sensor monitors logical partitions of a hard or fixed disk drive. PRTG identifies logical disks by their drive letter, such as **C**.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Free Disk Space (Multi Disk) Sensor

Sensor in Other Languages

- Dutch: WMI Vrije Schijfruimte (Multi Schijf)
- French: Capacité du disque WMI (plusieurs fois)
- German: WMI Laufwerkskapazität (mehrf.)
- Japanese: WMI ディスク空き領域 (複数ドライブ)
- Portuguese: Espaço livre em disco da WMI (vários discos)
- Russian: WMI ()
- Simplified Chinese: WMI 磁盘可用空间 (多个磁盘)
- Spanish: WMI disco libre (discos múltiples)

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[450] for load balancing.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#)^[36] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

WMI Disk Free Configuration

Setting	Description
Drives	<p>Select the drives that you want to monitor from the dropdown list.</p> <p>You can select All to monitor all available drives, or you can select one specific drive letter to monitor a single drive only. The dropdown list might also contain drive letters that do not exist on your device.</p> <p>i You cannot change the drive setting after sensor creation.</p> <p>i We recommend that you use the default value.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ ⊕

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ diskspacesensor ▪ wmidiskspacesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

WMI Disk Free Configuration

WMI Disk Free Configuration

Drives **i** All

WMI Disk Free Configuration

Setting	Description
Drives	Shows the drives that this sensor monitors. This is either All or a specific drive letter. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Set Limits Checked for ALL Disks

In this section, you can set limits that are valid for all channels and all drives. By entering limits, you can define when the sensor shows the Warning or the Down [status](#)¹⁹⁷, depending on the data provided by all drives that this sensor monitors. If you want to individually define limits for separate channels, use the limit settings in the [channel settings](#)³⁹⁷⁷.

i All limits that you define here are valid in addition to the limits defined in the particular Channel settings. The limits are valid simultaneously, so the first limit that is breached applies.

Set Limits Checked For ALL Disks Use the channel settings to set separate error limits or warning limits for each disk.

Percentage Limit Check i Only use the limits in the settings of the percentage channels
 Use the limits of both the sensor and the channel settings

Upper Error Limit i

Upper Warning Limit i

Lower Warning Limit i

Lower Error Limit i

Size Limit Check i Only use the limits in the settings of the byte size channels
 Use the limits of both the sensor and the channel settings

Alarm on Missing/Removed Disk i Deactivate alarm (default)
 Activate alarm

Set Limits Checked For ALL Disks

Setting	Description
Percentage Limit Check	Enable or disable a limit check for the free space in percentage channels of all drives. By default, the sensor enables percentage limits with a lower warning limit and a lower error limit. Choose between: <ul style="list-style-type: none"> Only use the limits in the settings of the percentage channels: Do not define sensor limits that are valid for all percentage channels. The sensor only uses the limits that you define in the settings of the particular "free space in percent" channels to determine the status.

Setting	Description
Upper Error Limit	<ul style="list-style-type: none"> ▪ Use the limits of both the sensor and the channel settings: Define sensor limits that are valid for all percentage channels. Additional fields appear below. The sensor shows the Warning or the Down status when free space limits are above or below the limits. <p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify an upper limit in percent for the Down status. If the free disk space of one of your drives exceeds this value, the sensor changes to the Down status. Enter an integer value or leave the field empty.</p>
Upper Warning Limit	<p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p> <p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify an upper limit in percent for the Warning status. If the free disk space of one of your drives exceeds this value, the sensor changes to the Warning status. Enter an integer value or leave the field empty.</p>
Lower Warning Limit	<p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p> <p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify a lower limit in percent for the Warning status. If the free disk space of one of your drives falls below this value, the sensor changes to the Warning status. Enter an integer value or leave the field empty.</p>
Lower Error Limit	<p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p> <p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify a lower limit in percent for the Down status. If the free disk space of one of your drives falls below this value, the sensor changes to the Down status. Enter an integer value or leave the field empty.</p>
Size Limit Check	<p>Enable or disable a limit check for the free bytes channels of all drives:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ Only use the limits in the settings of the byte size channels: Do not define sensor limits that are valid for all byte size channels. The sensor only uses limits that you define in the settings of the particular free space in bytes channels to determine the status. ▪ Use the limits of both the sensor and the channel settings: Define limits for the sensor that are valid for all byte size channels. Additional fields appear below. The sensor shows the Warning or Down status when free space limits are above or below the value. <p>i By default, byte size limits are not enabled for drives.</p>
Upper Error Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify an upper limit. Use the same unit as shown by the free bytes channels of this sensor (by default this is MB). If the free disk space of one of your drives exceeds this value, the sensor changes to the Down status. Enter an integer value or leave the field empty.</p> <p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p>
Upper Warning Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify an upper limit. Use the same unit as shown by the free bytes channels of this sensor (by default this is MB). If the free disk space of one of your drives exceeds this value, the sensor changes to the Warning status. Enter an integer value or leave the field empty.</p> <p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p>
Lower Warning Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify a lower limit. Use the same unit as shown by the free bytes channels of this sensor (by default this is MB). If the free disk space of one of your drives falls below this value, the sensor changes to the Warning status. Enter an integer value or leave the field empty.</p> <p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p>

Setting	Description
Lower Error Limit	<p>This setting is only visible if you select Use the limits of both the sensor and the channel settings above. Specify a lower limit. Use the same unit as shown by the free bytes channels of this sensor (by default this is MB). If the free disk space of one of your drives falls below this value, the sensor changes to the Down status. Enter an integer value or leave the field empty.</p> <p>i The limits that you set here are valid for all channels of this sensor. You can additionally set individual limits for each channel in the channel settings. Both the limits that you set here and in the channel settings are valid simultaneously.</p>
Alarm on Missing/Removed Disk	<p>If a monitored disk is removed or not found, the sensor sets the values to zero. Select the alarm approach in this case:</p> <ul style="list-style-type: none"> ▪ Deactivate alarm (default): Do not send an alert for a removed disk. ▪ Activate alarm: Send an alert if a monitored disk is removed or not found.

Debug Options

Debug Options

Result Handling **i**

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Bytes C:	The free space in bytes
Free Bytes D:	The free space in bytes
Free Space C:	The free space in percent
Free Space D:	The free space in percent
Total	The disk space in total

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

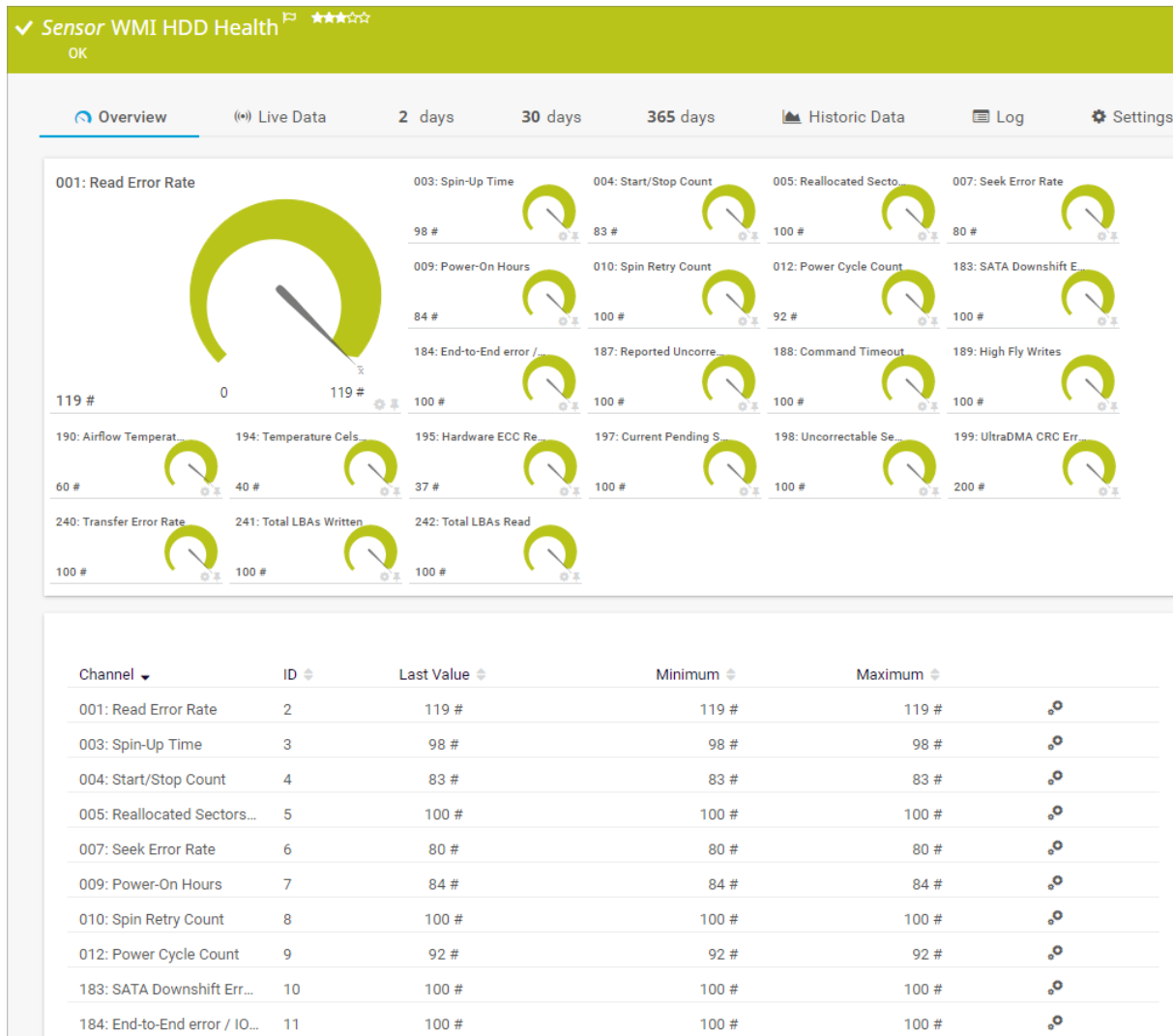
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.258 WMI HDD Health Sensor

The WMI HDD Health sensor connects to the parent device via Windows Management Instrumentation (WMI) and monitors the health of integrated development environment (IDE) disk drives on the target system using Self-Monitoring, Analysis and Reporting Technology (S.M.A.R.T.).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI HDD Health Sensor

Sensor in Other Languages

- Dutch: WMI HDD Status
- French: État WMI HDD
- German: WMI Laufwerkszustand
- Japanese: WMI HDD 正常性
- Portuguese: Funcionamento do HD WMI
- Russian: WMI

- Simplified Chinese: WMI 硬盘健康状况
- Spanish: Salud de disco duro WMI

Remarks

- This sensor requires Windows 7 or later on the target machine that holds the hard disk drives you want to monitor. The sensor might not work reliably if the target machine runs on Windows 2003, Windows XP, or Windows Vista. Because of a known bug in those systems, the sensor might not detect available hard disk drives.
- This sensor requires [credentials for Windows systems](#) [452] in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- The values that this sensor shows can vary depending on how a vendor handles S.M.A.R.T. values. See the respective vendor's documentation for more information.
- For a general introduction to the technology behind WMI, see section [Monitoring via WMI](#) [4298].
- This sensor has a medium performance impact.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) [361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

S.M.A.R.T. Specific

Setting	Description
IDE Devices	<p>Select the IDE device that you want to monitor. PRTG creates one sensor for each IDE device that you select.</p> <ul style="list-style-type: none"> ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. ⓘ The items in the list are specific to the parent device.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag X +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ smartsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

S.M.A.R.T. Specific

S.M.A.R.T. Specific

Serial Number ⓘ XXXXXXXXXXXX

Size (GB) ⓘ 978

Name ⓘ \\.\PHYSICALDRIVE0

Timeout (Sec.) ⓘ

S.M.A.R.T. Specific

Setting	Description
Serial Number	<p>Shows the serial number of the disk that this sensor monitors.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Size (GB)	<p>Shows the size of the disk that this sensor monitors.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Name	<p>Shows the name of the disk that this sensor monitors.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p> ⓘ If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

Debug Options

Debug Options

Result Handling ⓘ

Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⬇ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#).

Scanning Interval


Click  to interrupt the inheritance.

Scanning Interval Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights							
User Group Access							
<input type="radio"/> inherit from Root	<table border="1"> <thead> <tr> <th>User Group</th> <th>Rights</th> </tr> </thead> <tbody> <tr> <td>PRTG Users Group</td> <td>Full access</td> </tr> <tr> <td>RO User Group</td> <td>Inherited (No access)</td> </tr> </tbody> </table>	User Group	Rights	PRTG Users Group	Full access	RO User Group	Inherited (No access)
User Group	Rights						
PRTG Users Group	Full access						
RO User Group	Inherited (No access)						
<input type="checkbox"/> Revert children's access rights to inherited							

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

- Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

The channel names indicate the ID of the S.M.A.R.T. attribute, followed by a colon, and the typical meaning of the channel. The sensor can also show other attributes that the target device returns, but some channels have the name Unknown Channel. This happens if PRTG cannot match the ID of a found attribute with an internally defined channel name.

- Some vendors do not agree on attribute definitions and define meanings other than the common ones.

Every attribute of a disk assumes a value. PRTG shows these attributes as channels with their last, minimum, and maximum value. These channel values change over time and indicate the disk health. Higher values correspond to a better health. The disk's attributes come with a threshold, defined by the manufacturer of the drive. If a channel value is lower than this threshold, the sensor automatically shows the Warning [status](#) ¹⁹⁷. This indicates that the S.M.A.R.T. status of the HDD might break soon.

i For some attributes, there are no thresholds defined and because of this, they cannot be categorized for a status other than the Up status. You can define [lookups](#) and use them with affected channels to get the desired status for a return value.

Channel	Description
Average Erase Count And Maximum Erase Count	The average erase count and the maximum erase count
Command Timeout	The command timeout count
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Erase Fail Count	The erase fail count
G-Sense Error Rate	The G-sense error rate count
Hardware ECC Recovered	The hardware ECC recovered count
Power Cycle Count	The power cycle count
Power Loss Protection Failure	The power loss protection failure count
Power-On Hours	The power-on hours count
Program Fail Count Total	The program fail count total
Read Error Rate	The read error rate count i This channel is the primary channel by default.
Read Error Retry Rate	The read error retry rate count
Reallocated Sectors Count	The reallocated sectors count
Reported Uncorrectable Errors	The reported uncorrectable errors count
SATA Downshift Error Count	The SATA downshift error count

Channel	Description
Soft ECC Correction	The soft ECC correction count
Soft Read Error Rate	The soft read error rate count
SSD Erase Fail Count	The SSD erase fail count
SSD Life Left	The SSD life left count
SSD Program Fail Count	The SSD program fail count
Unexpected Power Loss Count	The unexpected power loss count
Unknown Channel	PRTG cannot match the ID of a found attribute with an internally defined channel name
Unused Reserved Block Count Total	The unused reserved block count total
Used Reserved Block Count Total	The used reserved block count total
Temperature Celsius	The temperature
Total LBAs Read	The total LBAs read
Total LBAs Written	The total LBAs written
Wear Range Delta	The wear range delta

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?




- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#) 

Part 7: Device and Sensor Setup | 8 Sensor Settings
258 WMI HDD Health Sensor

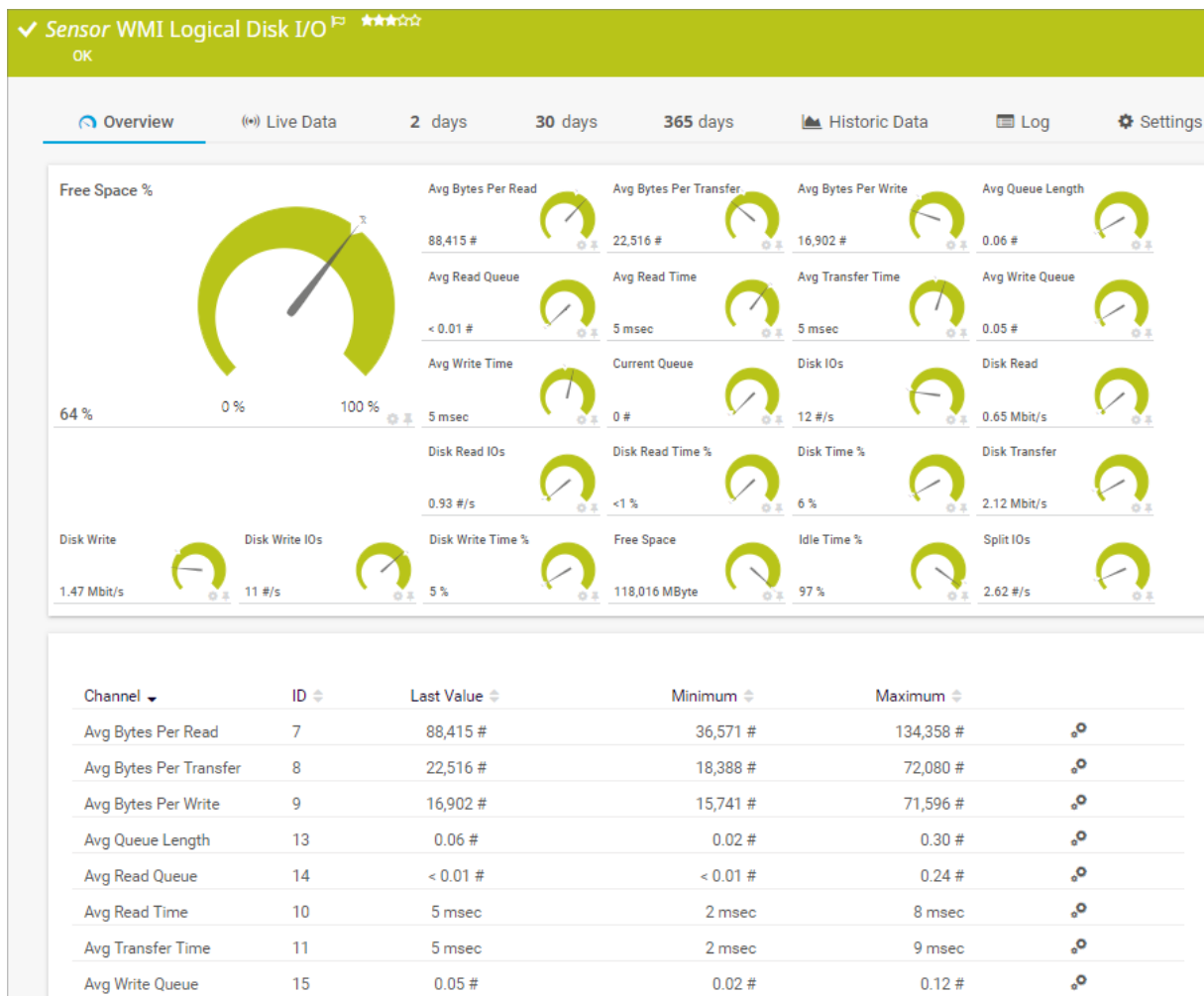
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.259 WMI Logical Disk I/O Sensor

The WMI Logical Disk I/O sensor monitors the disk usage of a logical disk or mount point on a Windows system via Windows Management Instrumentation (WMI).

i The sensor shows performance data of counters that monitor logical partitions of a hard drive. The system monitor identifies logical disk instances by their identifier, such as C:, and the sensor reads the logical disk object in the system monitor and returns the values.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Logical Disk I/O Sensor

Sensor in Other Languages

- Dutch: WMI Logische Schijf I/O
- French: E/S du disque logique WMI
- German: WMI Logischer Datenträger E/A
- Japanese: WMI 論理ディスク I/O
- Portuguese: E/S do disco lógico de WMI

- Russian: - WMI
- Simplified Chinese: WMI 逻辑磁盘 I/O
- Spanish: E/S WMI de disco lógico

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[4503] for load balancing.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports Windows Server 2008 R2 or later. It does not work on previous Windows versions (Windows Server 2008 or earlier).
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#)^[36] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

WMI Logical Disk I/O Specific

Setting	Description
Disk	<p>Select the logical disks that you want to monitor. PRTG creates one sensor for each logical disk that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ +

Priority ⓘ ★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmlogicalsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

WMI Logical Disk I/O Specific

WMI Logical Disk Specific
Disk ⓘ *_Total*

WMI Logical Disk I/O Specific

Setting	Description
Disk	<p>Shows the logical disk or mount point that this sensor monitors.</p> <p>ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options
Result Handling ⓘ

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display




Sensor Display

Primary Channel ⓘ Downtime


Graph Type ⓘ

Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².


Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>


Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**

Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Avg Bytes Per Read	The average number of bytes per read
Avg Bytes Per Transfer	The average number of bytes per transfer
Avg Bytes Per Write	The average number of bytes per write
Avg Queue Length	The average number of items in the queue
Avg Read Queue	The average number of items in the read queue
Avg Read Time	The average read time in milliseconds (msec)
Avg Transfer Time	The average transfer time in msec
Avg Write Queue	The average number of items in the write queue
Avg Write Time	The average write time in msec
Current Queue	The current number of items in the queue
Disk IOs	The number of disk input/output (I/O) operations per second
Disk Read	The disk read speed in bytes per second
Disk Read IOs	The number of disk read I/O operations per second
Disk Read Time %	The disk read time in percent
Disk Time %	The disk time in percent
Disk Transfer	The disk transfer speed in bytes per second
Disk Write	The disk write speed in bytes per second
Disk Write IOs	The number of disk write I/O operations per second
Disk Write Time %	The disk write time in percent
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Space	The free space in bytes

Channel	Description
Free Space %	The free space in percent  This channel is the primary channel by default.
Idle Time %	The idle time in percent
Split IOs	The number of split I/O operations per second

More

■ KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

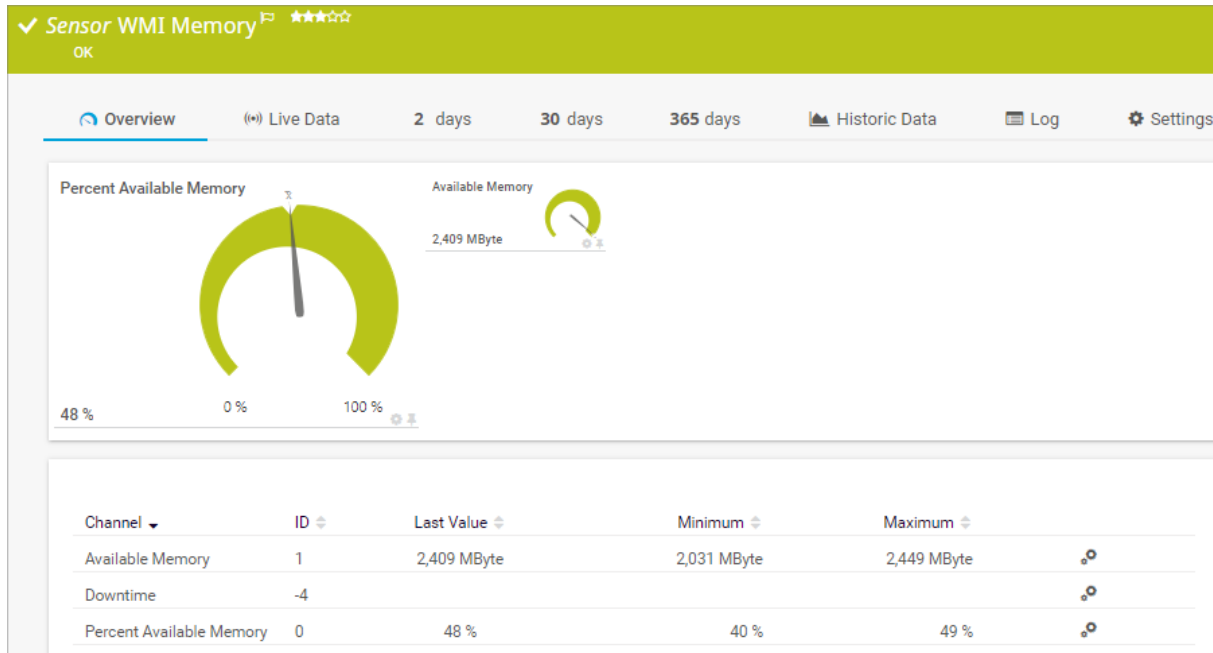
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.260 WMI Memory Sensor

The WMI Memory sensor monitors available (free) system memory on Windows systems via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Memory Sensor

Sensor in Other Languages

- Dutch: WMI Geheugen
- French: Mémoire WMI
- German: WMI Arbeitsspeicher
- Japanese: WMI メモリ
- Portuguese: Memória de WMI
- Russian: WMI
- Simplified Chinese: WMI 内存
- Spanish: WMI memoria

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog. It has three main sections: 'Sensor Name' with the value 'Example Name', 'Tags' with a list containing 'exampletag', and 'Priority' set to 5 stars. Each field has an information icon (i).

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ memorysensor ▪ wmicmemorysensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Debug Options

Debug Options

Result Handling ⁱ
 Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[452] on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Alternative WMI Query

Alternative WMI Query

WMI sensors use the most efficient and accurate WMI queries possible. However, different Windows versions and even different patch levels on the target systems can lead to changes in some WMI classes. These changes often result in errors like class not valid or invalid data. If these errors persist, try using the option Query Method.

Query Method ⁱ


Use the default WMI query method
 Use the alternative WMI query method


Alternative WMI Query

Setting	Description
Query Method	<p>Select the method that the sensor uses to query via WMI:</p> <ul style="list-style-type: none"> Use the default WMI query method: Use the standard method to query WMI. We recommend that you use this option. Use the alternative WMI query method: Use an alternative method to query WMI for better compatibility if WMI sensors return errors such as class not valid or invalid data.





Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type 
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration^[4187] on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> None Saturdays Sundays Weekdays Weekdays Eight-To-Eight (08:00 - 20:00) Weekdays Nights (17:00 - 09:00) Weekdays Nights (20:00 - 08:00) Weekdays Nine-To-Five (09:00 - 17:00) Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Available Memory	The available memory in bytes
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
Percent Available Memory	The available memory in percent  This channel is the primary channel by default.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3957

7.8.261 WMI Microsoft SQL Server 2005 Sensor (Deprecated)

Important Notice

This sensor is deprecated.

Monitoring of Microsoft SQL Server 2005 using PRTG is discontinued. Microsoft SQL Server 2005 cannot be monitored with PRTG anymore with the latest updates of SQL Server 2005. The reason for this is a software update delivered by Microsoft in August 2012. The following updates cause this issue:

- Security Update for SQL Server 2005 Service Pack 4 (KB2716429)
- Security Update for SQL Server 2005 Service Pack 4 (KB2716427)

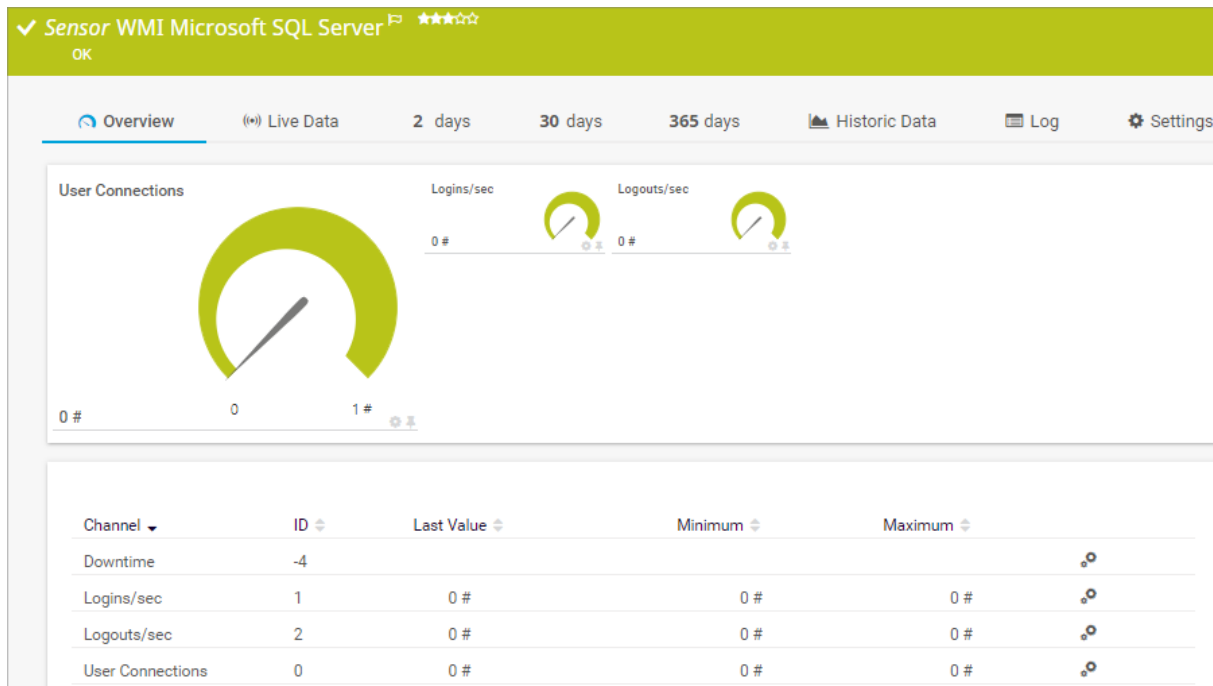
We have made reasonable effort to fix this from our side but we were unable to do so. We do not have instructions to circumvent this issue at this time. Please ask the vendor to fix this.

More

Knowledge Base: [Why does my WMI Microsoft SQL Server 2005 sensor not work anymore?](#)

The WMI Microsoft SQL Server 2005 sensor monitors the performance of a Microsoft SQL Server via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Microsoft SQL Server 2005 Sensor

Sensor in Other Languages

- Dutch: WMI Microsoft SQL Server 2005
- French: Serveur WMI Microsoft SQL 2005
- German: WMI Microsoft SQL Server 2005
- Japanese: WMI Microsoft SQL Server 2005
- Portuguese: Microsoft SQL Server 2005 WMI
- Russian: WMI Microsoft SQL Server 2005
- Simplified Chinese: WMI Microsoft SQL Server 2005
- Spanish: WMI Microsoft SQL Server 2005

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[450] for load balancing.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- You can only add this sensor to a device (computer) running a Microsoft SQL database.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#)^[36] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

SQL Server Settings

Setting	Description
Server Instances	<p>Select the instances that you want to monitor. PRTG creates one sensor for each instance that you select.</p> <ul style="list-style-type: none"> ❗ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. ❗ Display name and service name are provided as returned by the SQL Server.

SQL Counter Specific

Setting	Description
SQL Performance Counters	<p>You see a list of different groups of performance counters that the sensor can monitor for the instances that you selected above. Every sensor that PRTG creates for the server instances monitors the performance counters you select here. Choose from:</p> <ul style="list-style-type: none"> ▪ General Statistics: Read general performance counters. This shows the number of user connections and the number of logins and logouts per second. ▪ Access Methods: Read access method counters. This shows the number of full scans, page splits, and table lock escalations (per second). ▪ Buffer Manager: Read buffer manager counters. This shows the buffer cache hit ratio in percent and the number of database pages and stolen pages. ▪ Memory Manager: Read memory manager counters. This shows the connection memory, optimizer memory, total server memory, target server memory, and SQL cache memory (in kb). ▪ Locks: Read locks counters. This shows the number of lock requests and deadlocks (per second), and the average wait time. ▪ SQL Statistics: Read SQL statistics. This shows the number of batch requests, SQL compilations, and SQL re-compilations (per second). <p>Depending on your selection, PRTG creates a sensor with the specified channels.</p> <p>i To monitor more than one of the listed groups of performance counters, add the sensor several times for the respective instances.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag X +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> wmisqlserversensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

SQL Server Settings

SQL Server Settings

Service ⓘ *MSSQLSERVER*

Name ⓘ *SQL Server (MSSQLSERVER)*

Naming Method ⓘ Automatically determine the WMI class name
 Manually enter the WMI class name

Result Handling ⓘ Discard result
 Store result

SQL Server Settings

Setting	Description
Service	Shows the service that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Name	Shows the name of the server instance that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Naming Method	Select whether PRTG automatically selects the name of the WMI class used for monitoring: <ul style="list-style-type: none"> ▪ Automatically determine the WMI class name: Automatically select WMI class. We recommend this setting. ▪ Manually enter the WMI class name: Manually enter a WMI class name. Select this option if your server instance returns an error code in automatic mode.
WMI Class	This setting is only visible if you select Manually enter the WMI class name above. Enter the WMI class name that the sensor uses to monitor the server instance.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

SQL Counter Specific

SQL Counter Specific
SQL Performance Counters ⓘ
General Statistics

SQL Counter Specific

Setting	Description
SQL Performance Counters	Shows the performance counter that this sensor monitors.

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Sensor Display

Sensor Display


Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None ▼




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Average Wait Time	The average amount of wait time for each lock request that resulted in a wait
Batch Requests	The number of Transact-SQL command batches received per second. This statistic is affected by all constraints (such as input/output (I/O), number of users, cache size, or complexity of requests). High batch requests mean good throughput.
Buffer Cache Hit Ratio	<p>The percentage of pages found in the buffer cache without having to read from disk. The ratio is the total number of cache hits divided by the total number of cache lookups since an instance of SQL Server was started. After a long period of time, the ratio moves very little.</p> <p>Because reading from the cache is much less expensive than reading from disk, you want this ratio to be high. Generally, you can increase the buffer cache hit ratio by increasing the amount of memory available to SQL Server.</p>
Connection Memory (KB)	The total amount of dynamic memory the server is using for maintaining connections

Channel	Description
Database Pages	The number of pages in the buffer pool with database content
Deadlocks	The number of lock requests per second that resulted in a deadlock
Full Scans	The number of unrestricted full scans per second. These can be either base-table or full-index scans.
Lock Requests	The number of new locks and lock conversions per second requested from the lock manager
Logins	The total number of logins started per second
Logouts	The total number of logout operations started per second
Optimizer Memory (KB)	The total amount of dynamic memory the server is using for query optimization
Page Life Expectancy	The number of seconds a page stays in the buffer pool without references
Page Splits	The number of page splits per second that occur as the result of overflowing index pages
SQL Cache Memory (KB)	The total amount of dynamic memory the server is using for the dynamic SQL cache
SQL Compilations	The number of SQL compilations per second. Indicates the number of times the compile code path is entered. Includes compiles because of recompiles. After the SQL Server user activity is stable, this value reaches a steady state.
SQL Re-Compilations	The number of SQL recompiles per second. Counts the number of times recompiles are triggered. In general, you want the recompiles to be low.
Stolen Pages	The number of pages used for miscellaneous server purposes (including procedure cache)
Table Lock Escalations	The number of times that locks on a table were escalated
Target Server Memory (KB)	The total amount of dynamic memory the server can consume
Total Server Memory (KB)	The total amount of dynamic memory that the server is using

Channel	Description
User Connections	The number of user connections. Because each user connection consumes some memory, configuring overly high numbers of user connections could affect throughput. Set user connections to the maximum expected number of concurrent users.

More

KNOWLEDGE BASE

Why does my WMI Microsoft SQL Server 2005 sensor not work anymore?

- <https://kb.paessler.com/en/topic/44713>

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

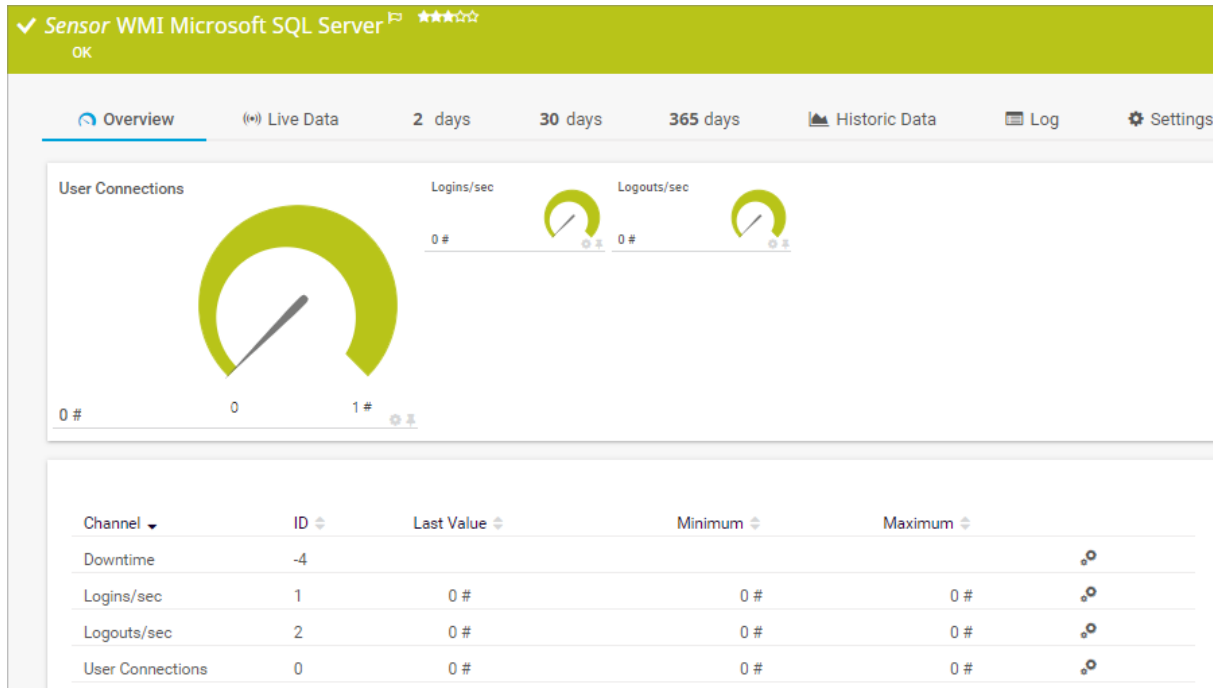
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3957

7.8.262 WMI Microsoft SQL Server 2008 Sensor

The WMI Microsoft SQL Server 2008 sensor monitors the performance of a Microsoft SQL Server via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Microsoft SQL Server 2008 Sensor

Sensor in Other Languages

- Dutch: WMI Microsoft SQL Server 2008
- French: Serveur WMI Microsoft SQL 2008
- German: WMI Microsoft SQL Server 2008
- Japanese: WMI Microsoft SQL Server 2008
- Portuguese: Microsoft SQL Server 2008 WMI
- Russian: WMI Microsoft SQL Server 2008
- Simplified Chinese: WMI Microsoft SQL Server 2008
- Spanish: WMI Microsoft SQL Server 2008

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.

- You can only add this sensor to a device (computer) running a Microsoft SQL database.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

SQL Server Settings

Setting	Description
Server Instances	<p>Select the instances that you want to monitor. PRTG creates one sensor for each instance that you select.</p> <ul style="list-style-type: none"> ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. ⓘ Display name and service name are provided as returned by the SQL Server.

SQL Counter Specific

Setting	Description
SQL Performance Counters	<p>You see a list of different groups of performance counters that the sensor can monitor for the instances that you selected above. Every sensor that PRTG creates for the server instances monitors the performance counters you select here. Choose from:</p> <ul style="list-style-type: none"> ▪ General Statistics: Read general performance counters. This shows the number of user connections and the number of logins and logouts per second. ▪ Access Methods: Read access method counters. This shows the number of full scans, page splits, and table lock escalations (per second). ▪ Buffer Manager: Read buffer manager counters. This shows the buffer cache hit ratio in percent and the number of database pages and stolen pages.

Setting	Description
	<ul style="list-style-type: none"> ▪ Memory Manager: Read memory manager counters. This shows the connection memory, optimizer memory, total server memory, target server memory, and SQL cache memory (in kb). ▪ Locks: Read locks counters. This shows the number of lock requests and deadlocks (per second), and the average wait time. ▪ SQL Statistics: Read SQL statistics. This shows the number of batch requests, SQL compilations, and SQL re-compilations (per second). <p>Depending on your selection, PRTG creates a sensor with the specified channels.</p> <p>i To monitor more than one of the listed groups of performance counters, add the sensor several times for the respective instances.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' configuration window. It includes the following elements:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list of tags with 'exampletag' selected, accompanied by a plus sign to add more.
- Priority:** A star rating system showing 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). i For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiqlserversensor ▪ wmiqlserversensor2008
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SQL Server Settings

SQL Server Settings

Service ⓘ *MSSQLSERVER*

Name ⓘ *SQL Server (MSSQLSERVER)*

Naming Method ⓘ

Automatically determine the WMI class name

Manually enter the WMI class name

Result Handling ⓘ

Discard result

Store result

SQL Server Settings

Setting	Description
Service	<p>Shows the service that this sensor monitors.</p> <ul style="list-style-type: none"> i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Setting	Description
Name	Shows the name of the server instance that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Naming Method	Select whether PRTG automatically selects the name of the WMI class used for monitoring: <ul style="list-style-type: none"> ▪ Automatically determine the WMI class name: Automatically select WMI class. We recommend this setting. ▪ Manually enter the WMI class name: Manually enter a WMI class name. Select this option if your server instance returns an error code in automatic mode.
WMI Class	This setting is only visible if you select Manually enter the WMI class name above. Enter the WMI class name that the sensor uses to monitor the server instance.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

SQL Counter Specific

SQL Counter Specific SQL Performance Counters ⓘ *General Statistics*

SQL Counter Specific

Setting	Description
SQL Performance Counters	Shows the performance counter that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ⓘ).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ⓘ if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ⓘ.

Scanning Interval

Click ⓘ to interrupt the [inheritance](#) ⓘ.

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
Maintenance Window	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p> <p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>For more details on access rights, see section Access Rights Management.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Average Wait Time	The average amount of wait time for each lock request that resulted in a wait
Batch Requests	The number of Transact-SQL command batches received per second. This statistic is affected by all constraints (such as input/output (I/O), number of users, cache size, or complexity of requests). High batch requests mean good throughput.
Buffer Cache Hit Ratio	<p>The percentage of pages found in the buffer cache without having to read from disk. The ratio is the total number of cache hits divided by the total number of cache lookups since an instance of SQL Server was started. After a long period of time, the ratio moves very little.</p> <p>Because reading from the cache is much less expensive than reading from disk, you want this ratio to be high. Generally, you can increase the buffer cache hit ratio by increasing the amount of memory available to SQL Server.</p>
Connection Memory (KB)	The total amount of dynamic memory the server is using for maintaining connections

Channel	Description
Database Pages	The number of pages in the buffer pool with database content
Deadlocks	The number of lock requests per second that resulted in a deadlock
Full Scans	The number of unrestricted full scans per second. These can be either base-table or full-index scans.
Lock Requests	The number of new locks and lock conversions per second requested from the lock manager
Logins	The total number of logins started per second
Logouts	The total number of logout operations started per second
Optimizer Memory (KB)	The total amount of dynamic memory the server is using for query optimization
Page Life Expectancy	The number of seconds a page stays in the buffer pool without references
Page Splits	The number of page splits per second that occur as the result of overflowing index pages
SQL Cache Memory (KB)	The total amount of dynamic memory the server is using for the dynamic SQL cache
SQL Compilations	The number of SQL compilations per second. Indicates the number of times the compile code path is entered. Includes compiles because of recompiles. After the SQL Server user activity is stable, this value reaches a steady state.
SQL Re-Compilations	The number of SQL recompiles per second. Counts the number of times recompiles are triggered. In general, you want the recompiles to be low.
Stolen Pages	The number of pages used for miscellaneous server purposes (including procedure cache)
Table Lock Escalations	The number of times that locks on a table were escalated
Target Server Memory (KB)	The total amount of dynamic memory the server can consume
Total Server Memory (KB)	The total amount of dynamic memory that the server is using

Channel	Description
User Connections	The number of user connections. Because each user connection consumes some memory, configuring overly high numbers of user connections could affect throughput. Set user connections to the maximum expected number of concurrent users.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

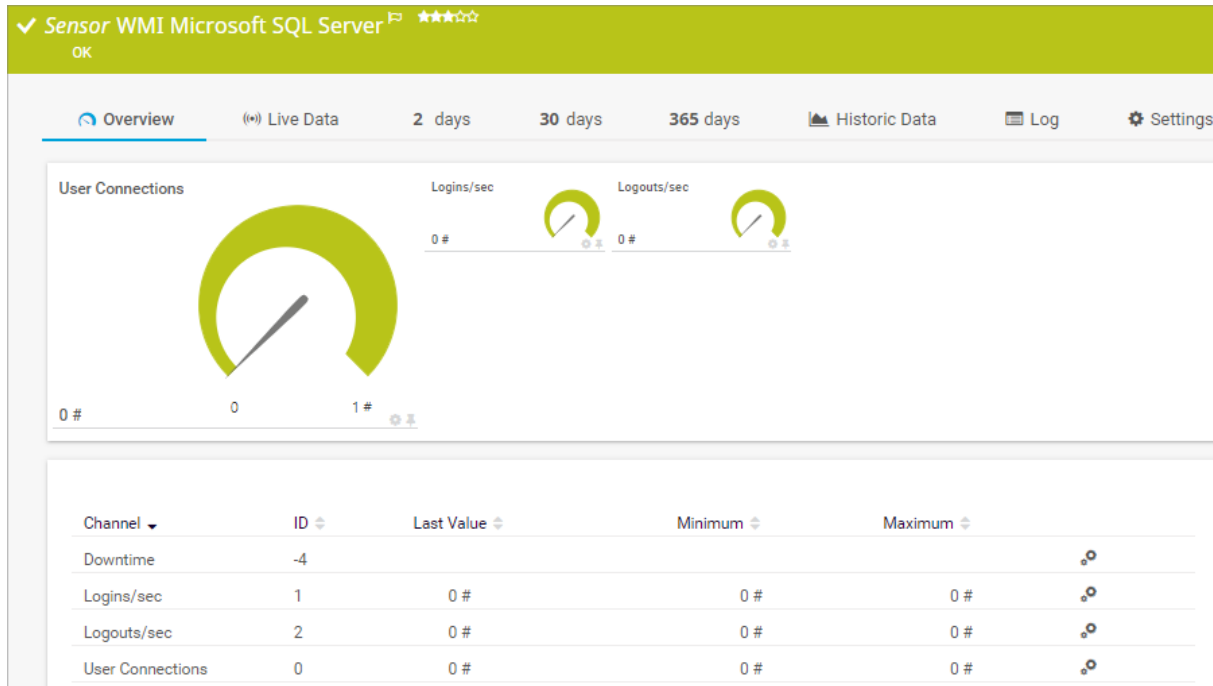
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.263 WMI Microsoft SQL Server 2012 Sensor

The WMI Microsoft SQL Server 2012 sensor monitors the performance of a Microsoft SQL Server via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Microsoft SQL Server 2012 Sensor

Sensor in Other Languages

- Dutch: WMI Microsoft SQL Server 2012
- French: Serveur WMI Microsoft SQL 2012
- German: WMI Microsoft SQL Server 2012
- Japanese: WMI Microsoft SQL Server 2012
- Portuguese: Microsoft SQL Server 2012 WMI
- Russian: WMI Microsoft SQL Server 2012
- Simplified Chinese: WMI Microsoft SQL Server 2012
- Spanish: WMI Microsoft SQL Server 2012

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.

- You can only add this sensor to a device (computer) running a Microsoft SQL database.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

SQL Server Settings

Setting	Description
Server Instances	<p>Select the instances that you want to monitor. PRTG creates one sensor for each instance that you select.</p> <ul style="list-style-type: none"> ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. ⓘ Display name and service name are provided as returned by the SQL Server.

SQL Counter Specific

Setting	Description
SQL Performance Counters	<p>You see a list of different groups of performance counters that the sensor can monitor for the instances that you selected above. Every sensor that PRTG creates for the server instances monitors the performance counters you select here. Choose from:</p> <ul style="list-style-type: none"> ▪ General Statistics: Read general performance counters. This shows the number of user connections and the number of logins and logouts per second. ▪ Access Methods: Read access method counters. This shows the number of full scans, page splits, and table lock escalations (per second). ▪ Buffer Manager: Read buffer manager counters. This shows the buffer cache hit ratio in percent and the number of database pages and stolen pages.

Setting	Description
	<ul style="list-style-type: none"> ▪ Memory Manager: Read memory manager counters. This shows the connection memory, optimizer memory, total server memory, target server memory, and SQL cache memory (in kb). ▪ Locks: Read locks counters. This shows the number of lock requests and deadlocks (per second), and the average wait time. ▪ SQL Statistics: Read SQL statistics. This shows the number of batch requests, SQL compilations, and SQL re-compilations (per second). <p>Depending on your selection, PRTG creates a sensor with the specified channels.</p> <p>i To monitor more than one of the listed groups of performance counters, add the sensor several times for the respective instances.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' configuration window. It includes the following elements:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list of tags with 'exampletag' selected, accompanied by a plus sign to add more.
- Priority:** A star rating system showing 3 stars selected out of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). i For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiqlserversensor ▪ wmiqlserversensor2012
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SQL Server Settings

SQL Server Settings

Service ⓘ *MSSQLSERVER*

Name ⓘ *SQL Server (MSSQLSERVER)*

Naming Method ⓘ

Automatically determine the WMI class name

Manually enter the WMI class name

Result Handling ⓘ

Discard result

Store result

SQL Server Settings

Setting	Description
Service	<p>Shows the service that this sensor monitors.</p> <ul style="list-style-type: none"> i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Setting	Description
Name	Shows the name of the server instance that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Naming Method	Select whether PRTG automatically selects the name of the WMI class used for monitoring: <ul style="list-style-type: none"> Automatically determine the WMI class name: Automatically select WMI class. We recommend this setting. Manually enter the WMI class name: Manually enter a WMI class name. Select this option if your server instance returns an error code in automatic mode.
WMI Class	This setting is only visible if you select Manually enter the WMI class name above. Enter the WMI class name that the sensor uses to monitor the server instance.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

SQL Counter Specific


SQL Counter Specific SQL Performance Counters ⓘ *General Statistics*


SQL Counter Specific

Setting	Description
SQL Performance Counters	Shows the performance counter that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.




Sensor Display

Sensor Display


Primary Channel  Downtime

Graph Type  Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 


 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Average Wait Time	The average amount of wait time for each lock request that resulted in a wait
Batch Requests	The number of Transact-SQL command batches received per second. This statistic is affected by all constraints (such as input/output (I/O), number of users, cache size, or complexity of requests). High batch requests mean good throughput.
Buffer Cache Hit Ratio	<p>The percentage of pages found in the buffer cache without having to read from disk. The ratio is the total number of cache hits divided by the total number of cache lookups since an instance of SQL Server was started. After a long period of time, the ratio moves very little.</p> <p>Because reading from the cache is much less expensive than reading from disk, you want this ratio to be high. Generally, you can increase the buffer cache hit ratio by increasing the amount of memory available to SQL Server.</p>
Connection Memory (KB)	The total amount of dynamic memory the server is using for maintaining connections

Channel	Description
Database Pages	The number of pages in the buffer pool with database content
Deadlocks	The number of lock requests per second that resulted in a deadlock
Full Scans	The number of unrestricted full scans per second. These can be either base-table or full-index scans.
Lock Requests	The number of new locks and lock conversions per second requested from the lock manager
Logins	The total number of logins started per second
Logouts	The total number of logout operations started per second
Optimizer Memory (KB)	The total amount of dynamic memory the server is using for query optimization
Page Life Expectancy	The number of seconds a page stays in the buffer pool without references
Page Splits	The number of page splits per second that occur as the result of overflowing index pages
SQL Cache Memory (KB)	The total amount of dynamic memory the server is using for the dynamic SQL cache
SQL Compilations	The number of SQL compilations per second. Indicates the number of times the compile code path is entered. Includes compiles because of recompiles. After the SQL Server user activity is stable, this value reaches a steady state.
SQL Re-Compilations	The number of SQL recompiles per second. Counts the number of times recompiles are triggered. In general, you want the recompiles to be low.
Stolen Pages	The number of pages used for miscellaneous server purposes (including procedure cache)
Table Lock Escalations	The number of times that locks on a table were escalated
Target Server Memory (KB)	The total amount of dynamic memory the server can consume
Total Server Memory (KB)	The total amount of dynamic memory that the server is using

Channel	Description
User Connections	The number of user connections. Because each user connection consumes some memory, configuring overly high numbers of user connections could affect throughput. Set user connections to the maximum expected number of concurrent users.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

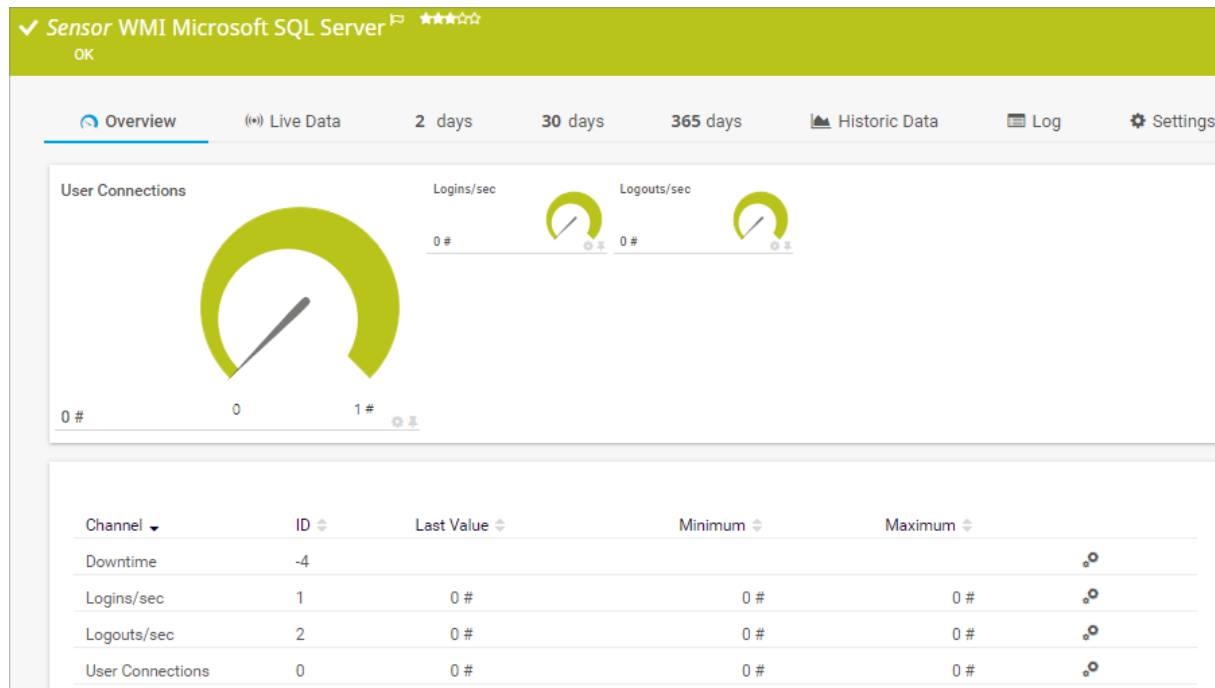
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.264 WMI Microsoft SQL Server 2014 Sensor

The WMI Microsoft SQL Server 2014 sensor monitors the performance of a Microsoft SQL Server via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Microsoft SQL Server 2014 Sensor

Sensor in Other Languages

- Dutch: WMI Microsoft SQL Server 2014
- French: Serveur WMI Microsoft SQL 2014
- German: WMI Microsoft SQL Server 2014
- Japanese: WMI Microsoft SQL Server 2014
- Portuguese: Microsoft SQL Server 2014 WMI
- Russian: WMI Microsoft SQL Server 2014
- Simplified Chinese: WMI Microsoft SQL Server 2014
- Spanish: WMI Microsoft SQL Server 2014

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.

- You can only add this sensor to a device (computer) running a Microsoft SQL database.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

SQL Server Settings

Setting	Description
Server Instances	<p>Select the instances that you want to monitor. PRTG creates one sensor for each instance that you select.</p> <ul style="list-style-type: none"> ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. ⓘ Display name and service name are provided as returned by the SQL Server.

SQL Counter Specific

Setting	Description
SQL Performance Counters	<p>You see a list of different groups of performance counters that the sensor can monitor for the instances that you selected above. Every sensor that PRTG creates for the server instances monitors the performance counters you select here. Choose from:</p> <ul style="list-style-type: none"> ▪ General Statistics: Read general performance counters. This shows the number of user connections and the number of logins and logouts per second. ▪ Access Methods: Read access method counters. This shows the number of full scans, page splits, and table lock escalations (per second). ▪ Buffer Manager: Read buffer manager counters. This shows the buffer cache hit ratio in percent and the number of database pages and stolen pages.

Setting	Description
	<ul style="list-style-type: none"> ▪ Memory Manager: Read memory manager counters. This shows the connection memory, optimizer memory, total server memory, target server memory, and SQL cache memory (in kb). ▪ Locks: Read locks counters. This shows the number of lock requests and deadlocks (per second), and the average wait time. ▪ SQL Statistics: Read SQL statistics. This shows the number of batch requests, SQL compilations, and SQL re-compilations (per second). <p>Depending on your selection, PRTG creates a sensor with the specified channels.</p> <p>i To monitor more than one of the listed groups of performance counters, add the sensor several times for the respective instances.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name i

Tags i x +

Priority i ★★★★★

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). i For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiqlserversensor ▪ wmiqlserversensor2014
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SQL Server Settings

SQL Server Settings

Service **i** MSSQLSERVER

Name **i** SQL Server (MSSQLSERVER)

Naming Method **i** Automatically determine the WMI class name
 Manually enter the WMI class name

Result Handling **i** Discard result
 Store result

SQL Server Settings

Setting	Description
Service	<p>Shows the service that this sensor monitors.</p> <ul style="list-style-type: none"> i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Setting	Description
Name	Shows the name of the server instance that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Naming Method	Select whether PRTG automatically selects the name of the WMI class used for monitoring: <ul style="list-style-type: none"> Automatically determine the WMI class name: Automatically select WMI class. We recommend this setting. Manually enter the WMI class name: Manually enter a WMI class name. Select this option if your server instance returns an error code in automatic mode.
WMI Class	This setting is only visible if you select Manually enter the WMI class name above. Enter the WMI class name that the sensor uses to monitor the server instance.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

SQL Counter Specific

SQL Counter Specific SQL Performance Counters ⓘ *General Statistics*

SQL Counter Specific

Setting	Description
SQL Performance Counters	Shows the performance counter that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
Maintenance Window	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Begins	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>For more details on access rights, see section Access Rights Management.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Average Wait Time	The average amount of wait time for each lock request that resulted in a wait
Batch Requests	The number of Transact-SQL command batches received per second. This statistic is affected by all constraints (such as input/output (I/O), number of users, cache size, or complexity of requests). High batch requests mean good throughput.
Buffer Cache Hit Ratio	<p>The percentage of pages found in the buffer cache without having to read from disk. The ratio is the total number of cache hits divided by the total number of cache lookups since an instance of SQL Server was started. After a long period of time, the ratio moves very little.</p> <p>Because reading from the cache is much less expensive than reading from disk, you want this ratio to be high. Generally, you can increase the buffer cache hit ratio by increasing the amount of memory available to SQL Server.</p>
Connection Memory (KB)	The total amount of dynamic memory the server is using for maintaining connections

Channel	Description
Database Pages	The number of pages in the buffer pool with database content
Deadlocks	The number of lock requests per second that resulted in a deadlock
Full Scans	The number of unrestricted full scans per second. These can be either base-table or full-index scans.
Lock Requests	The number of new locks and lock conversions per second requested from the lock manager
Logins	The total number of logins started per second
Logouts	The total number of logout operations started per second
Optimizer Memory (KB)	The total amount of dynamic memory the server is using for query optimization
Page Life Expectancy	The number of seconds a page stays in the buffer pool without references
Page Splits	The number of page splits per second that occur as the result of overflowing index pages
SQL Cache Memory (KB)	The total amount of dynamic memory the server is using for the dynamic SQL cache
SQL Compilations	The number of SQL compilations per second. Indicates the number of times the compile code path is entered. Includes compiles because of recompiles. After the SQL Server user activity is stable, this value reaches a steady state.
SQL Re-Compilations	The number of SQL recompiles per second. Counts the number of times recompiles are triggered. In general, you want the recompiles to be low.
Stolen Pages	The number of pages used for miscellaneous server purposes (including procedure cache)
Table Lock Escalations	The number of times that locks on a table were escalated
Target Server Memory (KB)	The total amount of dynamic memory the server can consume
Total Server Memory (KB)	The total amount of dynamic memory that the server is using

Channel	Description
User Connections	The number of user connections. Because each user connection consumes some memory, configuring overly high numbers of user connections could affect throughput. Set user connections to the maximum expected number of concurrent users.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

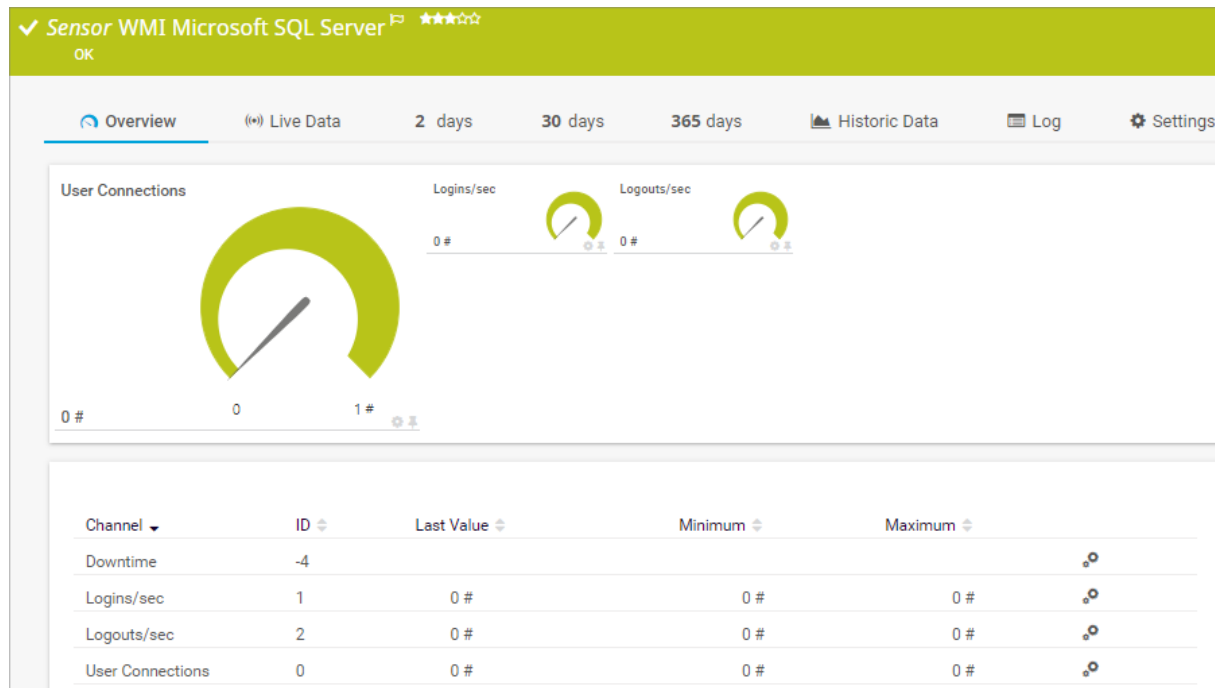
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.265 WMI Microsoft SQL Server 2016 Sensor

The WMI Microsoft SQL Server 2016 sensor monitors the performance of a Microsoft SQL Server via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Microsoft SQL Server 2016 Sensor

Sensor in Other Languages

- Dutch: WMI Microsoft SQL Server 2016
- French: Serveur WMI Microsoft SQL 2016
- German: WMI Microsoft SQL Server 2016
- Japanese: WMI Microsoft SQL Server 2016
- Portuguese: Microsoft SQL Server 2016 WMI
- Russian: WMI Microsoft SQL Server 2016
- Simplified Chinese: WMI Microsoft SQL Server 2016
- Spanish: WMI Microsoft SQL Server 2016

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.

- You can only add this sensor to a device (computer) running a Microsoft SQL database.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

SQL Server Settings

Setting	Description
Server Instances	<p>Select the instances that you want to monitor. PRTG creates one sensor for each instance that you select.</p> <ul style="list-style-type: none"> ❗ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. ❗ Display name and service name are provided as returned by the SQL Server.

SQL Counter Specific

Setting	Description
SQL Performance Counters	<p>You see a list of different groups of performance counters that the sensor can monitor for the instances that you selected above. Every sensor that PRTG creates for the server instances monitors the performance counters you select here. Choose from:</p> <ul style="list-style-type: none"> ▪ General Statistics: Read general performance counters. This shows the number of user connections and the number of logins and logouts per second. ▪ Access Methods: Read access method counters. This shows the number of full scans, page splits, and table lock escalations (per second). ▪ Buffer Manager: Read buffer manager counters. This shows the buffer cache hit ratio in percent and the number of database pages and stolen pages.

Setting	Description
	<ul style="list-style-type: none"> ▪ Memory Manager: Read memory manager counters. This shows the connection memory, optimizer memory, total server memory, target server memory, and SQL cache memory (in kb). ▪ Locks: Read locks counters. This shows the number of lock requests and deadlocks (per second), and the average wait time. ▪ SQL Statistics: Read SQL statistics. This shows the number of batch requests, SQL compilations, and SQL re-compilations (per second). <p>Depending on your selection, PRTG creates a sensor with the specified channels.</p> <p>i To monitor more than one of the listed groups of performance counters, add the sensor several times for the respective instances.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' configuration window. It includes the following elements:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list of tags with 'exampletag' selected, accompanied by a plus sign to add more.
- Priority:** A star rating system showing 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). i For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiqlserversensor ▪ wmiqlserversensor2016
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SQL Server Settings

SQL Server Settings

Service **i** *MSSQLSERVER*

Name **i** *SQL Server (MSSQLSERVER)*

Naming Method **i**

Automatically determine the WMI class name

Manually enter the WMI class name

Result Handling **i**

Discard result

Store result

SQL Server Settings

Setting	Description
Service	<p>Shows the service that this sensor monitors.</p> <ul style="list-style-type: none"> i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Setting	Description
Name	Shows the name of the server instance that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Naming Method	Select whether PRTG automatically selects the name of the WMI class used for monitoring: <ul style="list-style-type: none"> Automatically determine the WMI class name: Automatically select WMI class. We recommend this setting. Manually enter the WMI class name: Manually enter a WMI class name. Select this option if your server instance returns an error code in automatic mode.
WMI Class	This setting is only visible if you select Manually enter the WMI class name above. Enter the WMI class name that the sensor uses to monitor the server instance.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

SQL Counter Specific

SQL Counter Specific SQL Performance Counters ⓘ *General Statistics*

SQL Counter Specific

Setting	Description
SQL Performance Counters	Shows the performance counter that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click ⓘ to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Average Wait Time	The average amount of wait time for each lock request that resulted in a wait
Batch Requests	The number of Transact-SQL command batches received per second. This statistic is affected by all constraints (such as input/output (I/O), number of users, cache size, or complexity of requests). High batch requests mean good throughput.
Buffer Cache Hit Ratio	<p>The percentage of pages found in the buffer cache without having to read from disk. The ratio is the total number of cache hits divided by the total number of cache lookups since an instance of SQL Server was started. After a long period of time, the ratio moves very little.</p> <p>Because reading from the cache is much less expensive than reading from disk, you want this ratio to be high. Generally, you can increase the buffer cache hit ratio by increasing the amount of memory available to SQL Server.</p>
Connection Memory (KB)	The total amount of dynamic memory the server is using for maintaining connections

Channel	Description
Database Pages	The number of pages in the buffer pool with database content
Deadlocks	The number of lock requests per second that resulted in a deadlock
Full Scans	The number of unrestricted full scans per second. These can be either base-table or full-index scans.
Lock Requests	The number of new locks and lock conversions per second requested from the lock manager
Logins	The total number of logins started per second
Logouts	The total number of logout operations started per second
Optimizer Memory (KB)	The total amount of dynamic memory the server is using for query optimization
Page Life Expectancy	The number of seconds a page stays in the buffer pool without references
Page Splits	The number of page splits per second that occur as the result of overflowing index pages
SQL Cache Memory (KB)	The total amount of dynamic memory the server is using for the dynamic SQL cache
SQL Compilations	The number of SQL compilations per second. Indicates the number of times the compile code path is entered. Includes compiles because of recompiles. After the SQL Server user activity is stable, this value reaches a steady state.
SQL Re-Compilations	The number of SQL recompiles per second. Counts the number of times recompiles are triggered. In general, you want the recompiles to be low.
Stolen Pages	The number of pages used for miscellaneous server purposes (including procedure cache)
Table Lock Escalations	The number of times that locks on a table were escalated
Target Server Memory (KB)	The total amount of dynamic memory the server can consume
Total Server Memory (KB)	The total amount of dynamic memory that the server is using

Channel	Description
User Connections	The number of user connections. Because each user connection consumes some memory, configuring overly high numbers of user connections could affect throughput. Set user connections to the maximum expected number of concurrent users.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

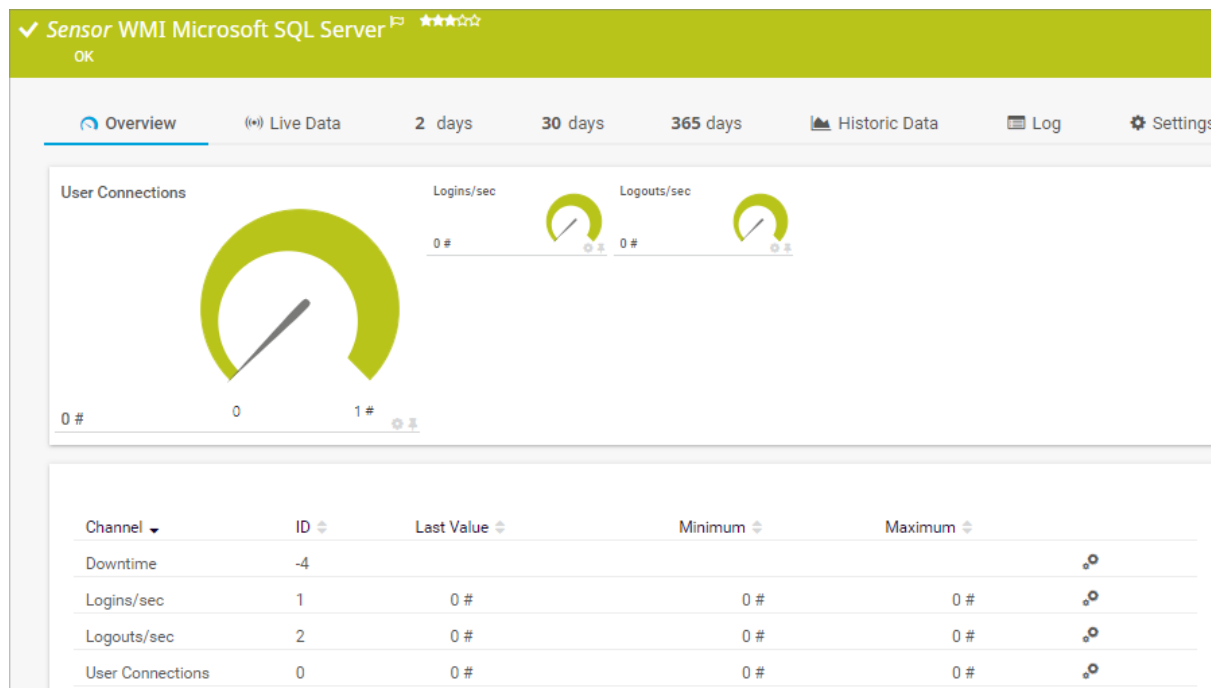
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.266 WMI Microsoft SQL Server 2017 Sensor

The WMI Microsoft SQL Server 2017 sensor monitors the performance of a Microsoft SQL Server via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Microsoft SQL Server 2017 Sensor

Sensor in Other Languages

- Dutch: WMI Microsoft SQL Server 2017
- French: Serveur WMI Microsoft SQL 2017
- German: WMI Microsoft SQL Server 2017
- Japanese: WMI Microsoft SQL Server 2017
- Portuguese: Microsoft SQL Server 2017 WMI
- Russian: WMI Microsoft SQL Server 2017
- Simplified Chinese: WMI Microsoft SQL Server 2017
- Spanish: WMI Microsoft SQL Server 2017

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.

- You can only add this sensor to a device (computer) running a Microsoft SQL database.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

SQL Server Settings

Setting	Description
Server Instances	<p>Select the instances that you want to monitor. PRTG creates one sensor for each instance that you select.</p> <ul style="list-style-type: none"> ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. ⓘ Display name and service name are provided as returned by the SQL Server.

SQL Counter Specific

Setting	Description
SQL Performance Counters	<p>You see a list of different groups of performance counters that the sensor can monitor for the instances that you selected above. Every sensor that PRTG creates for the server instances monitors the performance counters you select here. Choose from:</p> <ul style="list-style-type: none"> ▪ General Statistics: Read general performance counters. This shows the number of user connections and the number of logins and logouts per second. ▪ Access Methods: Read access method counters. This shows the number of full scans, page splits, and table lock escalations (per second). ▪ Buffer Manager: Read buffer manager counters. This shows the buffer cache hit ratio in percent and the number of database pages and stolen pages.

Setting	Description
	<ul style="list-style-type: none"> ▪ Memory Manager: Read memory manager counters. This shows the connection memory, optimizer memory, total server memory, target server memory, and SQL cache memory (in kb). ▪ Locks: Read locks counters. This shows the number of lock requests and deadlocks (per second), and the average wait time. ▪ SQL Statistics: Read SQL statistics. This shows the number of batch requests, SQL compilations, and SQL re-compilations (per second). <p>Depending on your selection, PRTG creates a sensor with the specified channels.</p> <p>i To monitor more than one of the listed groups of performance counters, add the sensor several times for the respective instances.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name i

Tags i x +

Priority i ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). i For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiqlserversensor ▪ wmiqlserversensor2017
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SQL Server Settings

SQL Server Settings

Service ⓘ *MSSQLSERVER*

Name ⓘ *SQL Server (MSSQLSERVER)*

Naming Method ⓘ

Automatically determine the WMI class name

Manually enter the WMI class name

Result Handling ⓘ

Discard result

Store result

SQL Server Settings

Setting	Description
Service	<p>Shows the service that this sensor monitors.</p> <ul style="list-style-type: none"> i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Setting	Description
Name	Shows the name of the server instance that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Naming Method	Select whether PRTG automatically selects the name of the WMI class used for monitoring: <ul style="list-style-type: none"> ▪ Automatically determine the WMI class name: Automatically select WMI class. We recommend this setting. ▪ Manually enter the WMI class name: Manually enter a WMI class name. Select this option if your server instance returns an error code in automatic mode.
WMI Class	This setting is only visible if you select Manually enter the WMI class name above. Enter the WMI class name that the sensor uses to monitor the server instance.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

SQL Counter Specific

SQL Counter Specific SQL Performance Counters ⓘ *General Statistics*

SQL Counter Specific

Setting	Description
SQL Performance Counters	Shows the performance counter that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Sensor Display

Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ⓘ).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ⓘ if necessary. To change a setting for this object only, click ⓘ under the corresponding setting name to disable the inheritance and to display its options.

■ For more information, see section [Inheritance of Settings](#) ⓘ.

Scanning Interval

Click ⓘ to interrupt the [inheritance](#) ⓘ.

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Average Wait Time	The average amount of wait time for each lock request that resulted in a wait
Batch Requests	The number of Transact-SQL command batches received per second. This statistic is affected by all constraints (such as input/output (I/O), number of users, cache size, or complexity of requests). High batch requests mean good throughput.
Buffer Cache Hit Ratio	<p>The percentage of pages found in the buffer cache without having to read from disk. The ratio is the total number of cache hits divided by the total number of cache lookups since an instance of SQL Server was started. After a long period of time, the ratio moves very little.</p> <p>Because reading from the cache is much less expensive than reading from disk, you want this ratio to be high. Generally, you can increase the buffer cache hit ratio by increasing the amount of memory available to SQL Server.</p>
Connection Memory (KB)	The total amount of dynamic memory the server is using for maintaining connections

Channel	Description
Database Pages	The number of pages in the buffer pool with database content
Deadlocks	The number of lock requests per second that resulted in a deadlock
Full Scans	The number of unrestricted full scans per second. These can be either base-table or full-index scans.
Lock Requests	The number of new locks and lock conversions per second requested from the lock manager
Logins	The total number of logins started per second
Logouts	The total number of logout operations started per second
Optimizer Memory (KB)	The total amount of dynamic memory the server is using for query optimization
Page Life Expectancy	The number of seconds a page stays in the buffer pool without references
Page Splits	The number of page splits per second that occur as the result of overflowing index pages
SQL Cache Memory (KB)	The total amount of dynamic memory the server is using for the dynamic SQL cache
SQL Compilations	The number of SQL compilations per second. Indicates the number of times the compile code path is entered. Includes compiles because of recompiles. After the SQL Server user activity is stable, this value reaches a steady state.
SQL Re-Compilations	The number of SQL recompiles per second. Counts the number of times recompiles are triggered. In general, you want the recompiles to be low.
Stolen Pages	The number of pages used for miscellaneous server purposes (including procedure cache)
Table Lock Escalations	The number of times that locks on a table were escalated
Target Server Memory (KB)	The total amount of dynamic memory the server can consume
Total Server Memory (KB)	The total amount of dynamic memory that the server is using

Channel	Description
User Connections	The number of user connections. Because each user connection consumes some memory, configuring overly high numbers of user connections could affect throughput. Set user connections to the maximum expected number of concurrent users.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

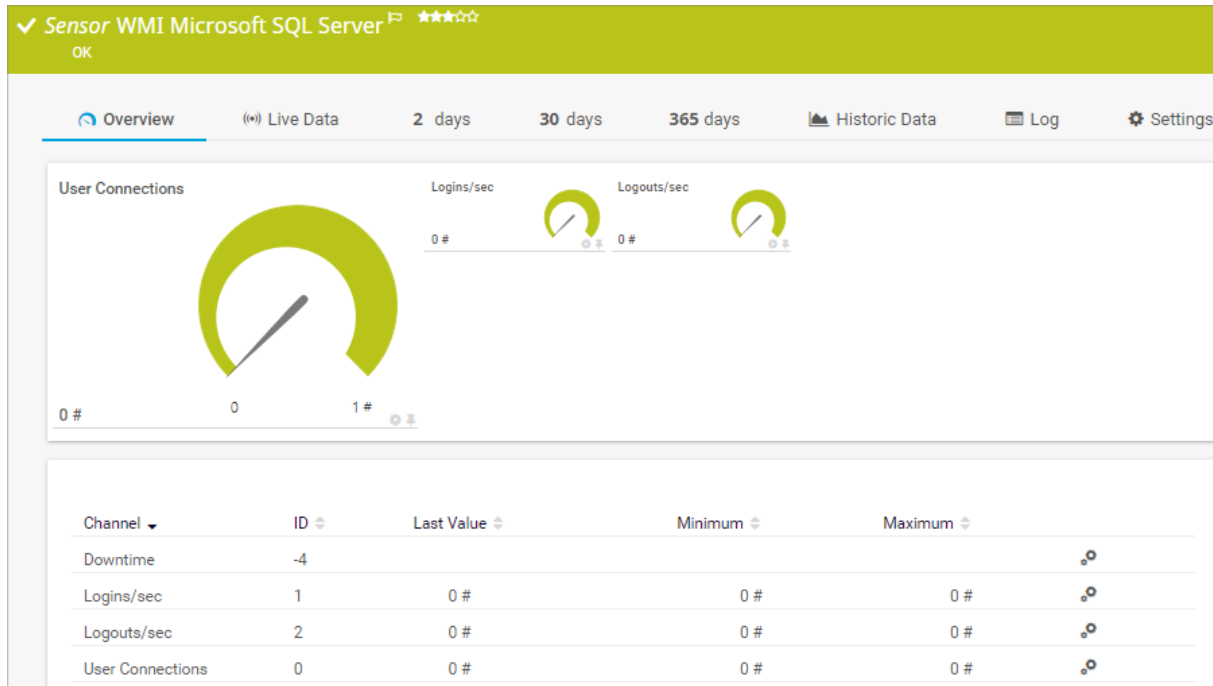
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.267 WMI Microsoft SQL Server 2019 Sensor

The WMI Microsoft SQL Server 2019 sensor monitors the performance of a Microsoft SQL Server via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Microsoft SQL Server 2019 Sensor

Sensor in Other Languages

- Dutch: WMI Microsoft SQL Server 2019
- French: Serveur WMI Microsoft SQL 2019
- German: WMI Microsoft SQL Server 2019
- Japanese: WMI Microsoft SQL Server 2019
- Portuguese: Microsoft SQL Server 2019 WMI
- Russian: WMI Microsoft SQL Server 2019
- Simplified Chinese: WMI Microsoft SQL Server 2019
- Spanish: WMI Microsoft SQL Server 2019

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.

- You can only add this sensor to a device (computer) running a Microsoft SQL database.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

SQL Server Settings

Setting	Description
Server Instances	<p>Select the instances that you want to monitor. PRTG creates one sensor for each instance that you select.</p> <ul style="list-style-type: none"> ❗ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. ❗ Display name and service name are provided as returned by the SQL Server.

SQL Counter Specific

Setting	Description
SQL Performance Counters	<p>You see a list of different groups of performance counters that the sensor can monitor for the instances that you selected above. Every sensor that PRTG creates for the server instances monitors the performance counters you select here. Choose from:</p> <ul style="list-style-type: none"> ▪ General Statistics: Read general performance counters. This shows the number of user connections and the number of logins and logouts per second. ▪ Access Methods: Read access method counters. This shows the number of full scans, page splits, and table lock escalations (per second). ▪ Buffer Manager: Read buffer manager counters. This shows the buffer cache hit ratio in percent and the number of database pages and stolen pages.

Setting	Description
	<ul style="list-style-type: none"> ▪ Memory Manager: Read memory manager counters. This shows the connection memory, optimizer memory, total server memory, target server memory, and SQL cache memory (in kb). ▪ Locks: Read locks counters. This shows the number of lock requests and deadlocks (per second), and the average wait time. ▪ SQL Statistics: Read SQL statistics. This shows the number of batch requests, SQL compilations, and SQL re-compilations (per second). <p>Depending on your selection, PRTG creates a sensor with the specified channels.</p> <p>i To monitor more than one of the listed groups of performance counters, add the sensor several times for the respective instances.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' interface. It includes a 'Sensor Name' field with the value 'Example Name', a 'Tags' field with 'exampletag', and a 'Priority' field set to 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <ul style="list-style-type: none"> i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). i For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiqlserversensor ▪ wmiqlserversensor2019
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

SQL Server Settings

SQL Server Settings

Service ⓘ *MSSQLSERVER*

Name ⓘ *SQL Server (MSSQLSERVER)*

Naming Method ⓘ

Automatically determine the WMI class name

Manually enter the WMI class name

Result Handling ⓘ

Discard result

Store result

SQL Server Settings

Setting	Description
Service	<p>Shows the service that this sensor monitors.</p> <ul style="list-style-type: none"> i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Setting	Description
Name	Shows the name of the server instance that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Naming Method	Select whether PRTG automatically selects the name of the WMI class used for monitoring: <ul style="list-style-type: none"> Automatically determine the WMI class name: Automatically select WMI class. We recommend this setting. Manually enter the WMI class name: Manually enter a WMI class name. Select this option if your server instance returns an error code in automatic mode.
WMI Class	This setting is only visible if you select Manually enter the WMI class name above. Enter the WMI class name that the sensor uses to monitor the server instance.
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

SQL Counter Specific

SQL Counter Specific SQL Performance Counters ⓘ *General Statistics*

SQL Counter Specific

Setting	Description
SQL Performance Counters	Shows the performance counter that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.


Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights


inherit from  Root

User Group Access 


User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Average Wait Time	The average amount of wait time for each lock request that resulted in a wait
Batch Requests	The number of Transact-SQL command batches received per second. This statistic is affected by all constraints (such as input/output (I/O), number of users, cache size, or complexity of requests). High batch requests mean good throughput.
Buffer Cache Hit Ratio	<p>The percentage of pages found in the buffer cache without having to read from disk. The ratio is the total number of cache hits divided by the total number of cache lookups since an instance of SQL Server was started. After a long period of time, the ratio moves very little.</p> <p>Because reading from the cache is much less expensive than reading from disk, you want this ratio to be high. Generally, you can increase the buffer cache hit ratio by increasing the amount of memory available to SQL Server.</p>
Connection Memory (KB)	The total amount of dynamic memory the server is using for maintaining connections

Channel	Description
Database Pages	The number of pages in the buffer pool with database content
Deadlocks	The number of lock requests per second that resulted in a deadlock
Full Scans	The number of unrestricted full scans per second. These can be either base-table or full-index scans.
Lock Requests	The number of new locks and lock conversions per second requested from the lock manager
Logins	The total number of logins started per second
Logouts	The total number of logout operations started per second
Optimizer Memory (KB)	The total amount of dynamic memory the server is using for query optimization
Page Life Expectancy	The number of seconds a page stays in the buffer pool without references
Page Splits	The number of page splits per second that occur as the result of overflowing index pages
SQL Cache Memory (KB)	The total amount of dynamic memory the server is using for the dynamic SQL cache
SQL Compilations	The number of SQL compilations per second. Indicates the number of times the compile code path is entered. Includes compiles because of recompiles. After the SQL Server user activity is stable, this value reaches a steady state.
SQL Re-Compilations	The number of SQL recompiles per second. Counts the number of times recompiles are triggered. In general, you want the recompiles to be low.
Stolen Pages	The number of pages used for miscellaneous server purposes (including procedure cache)
Table Lock Escalations	The number of times that locks on a table were escalated
Target Server Memory (KB)	The total amount of dynamic memory the server can consume
Total Server Memory (KB)	The total amount of dynamic memory that the server is using

Channel	Description
User Connections	The number of user connections. Because each user connection consumes some memory, configuring overly high numbers of user connections could affect throughput. Set user connections to the maximum expected number of concurrent users.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

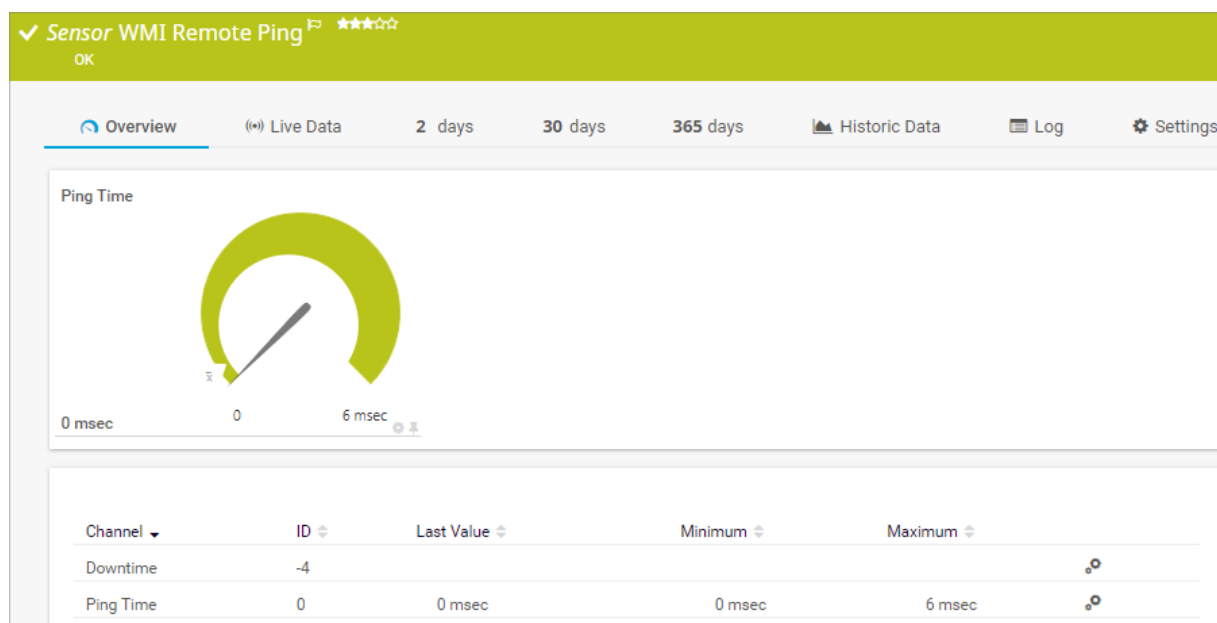
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.268 WMI Remote Ping Sensor

The WMI Remote Ping sensor remotely connects to a Windows system via Windows Management Instrumentation (WMI) and performs an Internet Control Message Protocol (ICMP) echo request (Ping) from this device to a specified target.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Remote Ping Sensor

Sensor in Other Languages

- Dutch: WMI Remote Ping
- French: Ping distant WMI
- German: WMI Remote Ping
- Japanese: WMI リモート Ping 実行
- Portuguese: Ping remoto de WMI
- Russian: WMI
- Simplified Chinese: WMI 远程 Ping
- Spanish: Ping remoto WMI

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name:** A text input field containing "Example Name".
- Tags:** A text input field containing "exampletag" with a close button (X) and a plus button (+).
- Priority:** A section with five star icons, all of which are filled, indicating a priority of 5.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ pingsensor ▪ wmisensor ▪ wmpingsensor ▪ remotepingsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) ^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

WMI Remote Ping Configuration

WMI Remote Ping Configuration

Target **i** 192.0.2.0

Timeout (Sec.) **i** 5

Packet Size (Bytes) **i** 32

WMI Remote Ping Configuration

Setting	Description
Target	<p>Enter the Domain Name System (DNS) name or IP address of the target device that you want to ping. The sensor remotely connects to its parent device via WMI. Then it performs a Ping request from this remote device to the target device or server. Enter a string.</p>
Timeout (Sec.)	<p>Enter a timeout in seconds for the Ping. If the reply takes longer than this value, PRTG cancels the request and shows an error message. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes)..</p>
Packet Size (Bytes)	<p>Enter the packet size for the Ping in bytes. You can enter any value between 1 and 10000. Enter an integer value.</p> <p>i We recommend that you use the default value.</p>

Debug Options

Debug Options

Result Handling ⓘ

Discard result

Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is <code>Result of Sensor [ID].Data.txt</code>. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel ⓘ

Downtime


Graph Type ⓘ

Show channels independently (default)


Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.

Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁸ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes 30 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited


Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.

Channel	Description
Ping Time	The Ping time from the remote device to the target device in milliseconds (msec)  This channel is the primary channel by default.

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

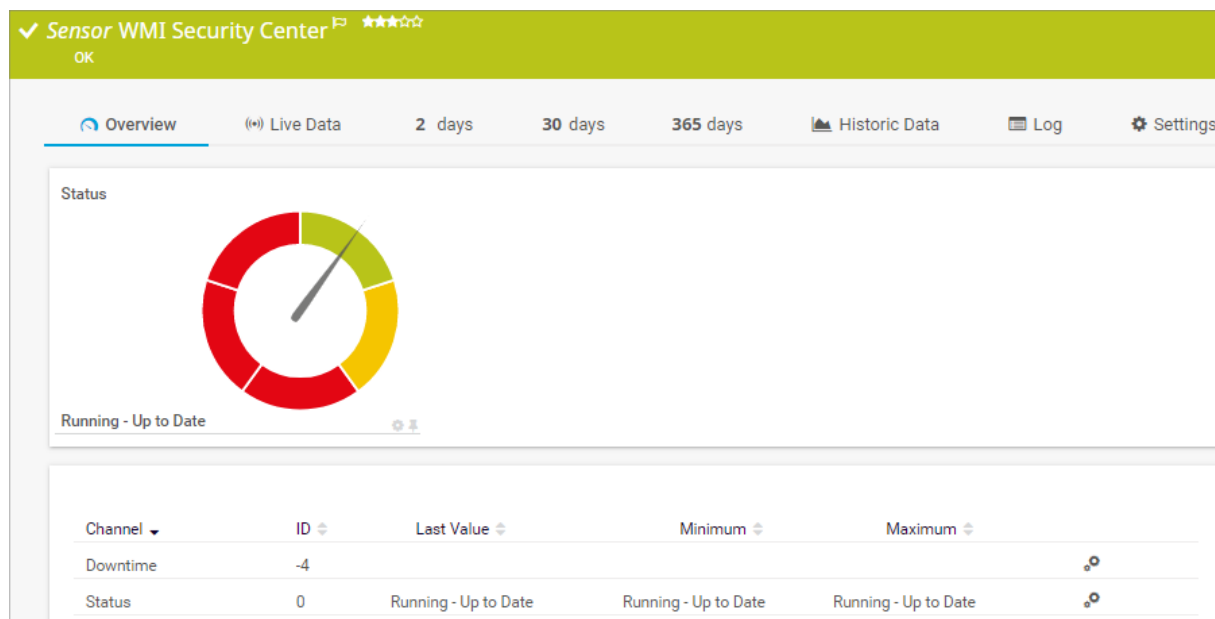
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3957

7.8.269 WMI Security Center Sensor

The WMI Security Center sensor monitors the security status of a Windows client computer via Windows Management Instrumentation (WMI). It can monitor all security products that are controlled by Windows Security Center / Windows Action Center.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Security Center Sensor


Sensor in Other Languages

- Dutch: WMI Security Center
- French: Centre de sécurité WMI
- German: WMI Sicherheits-Center
- Japanese: WMI セキュリティーセンター
- Portuguese: Centro de segurança WMI
- Russian: WMI
- Simplified Chinese: WMI 安全中心
- Spanish: Centro de seguridad WMI

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor requires Windows Vista or later on the target computer.

- This sensor does not run on Windows Server operating systems (Windows Server 2003, 2008, 2012, 2016) because the Windows Security Center / Windows Action Center is only available on client Windows versions.
- This sensor supports the IPv6 protocol.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).


 You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

 The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

WMI Security Center Specific

Setting	Description
Security Center Products	<p>Select the security center products that you want to monitor. PRTG creates one sensor for each product that you select.</p> <p>You see a list showing the Name and Type of all security products that the sensor finds in the Windows Security Center on the target device. If there are no products, you see a corresponding message.</p> <p> You can also select all items or cancel the selection by using the check box in the table header.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog with the following elements:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A text input field containing 'exampletag' with a blue 'x' icon to the right and a plus sign icon to the left.
- Priority:** A row of five star icons, with the first four stars filled and the fifth one empty.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ WMISecurityCenter
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

WMI Security Center Specific

WMI Security Center Specific

Display Name ⓘ *Windows Defender*

Type ⓘ *Antivirus*

WMI Security Center Specific

Setting	Description
Display Name	Shows the display name of the security center product that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Type	Shows the type of the security center product that this sensor monitors. ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Debug Options

Debug Options

Result Handling ⓘ Discard result
 Store result

Debug Options

Setting	Description
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.




Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

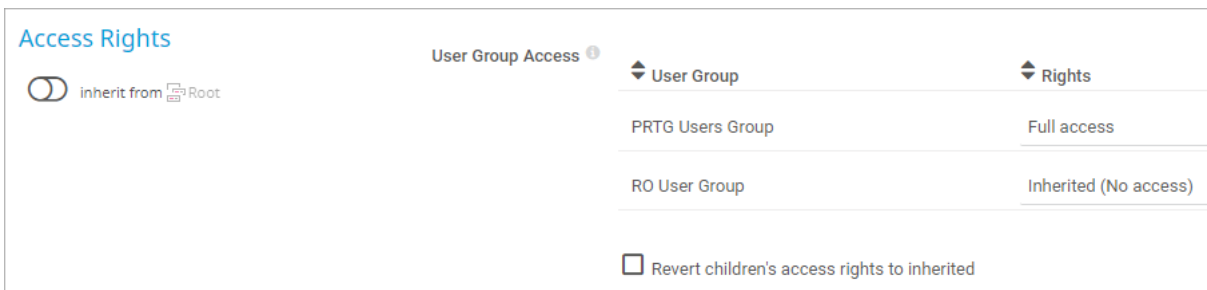
Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].

Access Rights

inherit from  Root

User Group Access ⓘ

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel List

- i** Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Status	<p>The status code of the monitored security product</p> <ul style="list-style-type: none"> Up status¹⁹⁷: Running - Up To Date (status code 4) Warning status: Running - Out Of Date (status code 2) Down status: Not Running - Out Of Date (status code 1), Not Running - Up To Date (status code 3), Unknown (status code 0) <p>i This channel is the primary channel by default.</p>

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

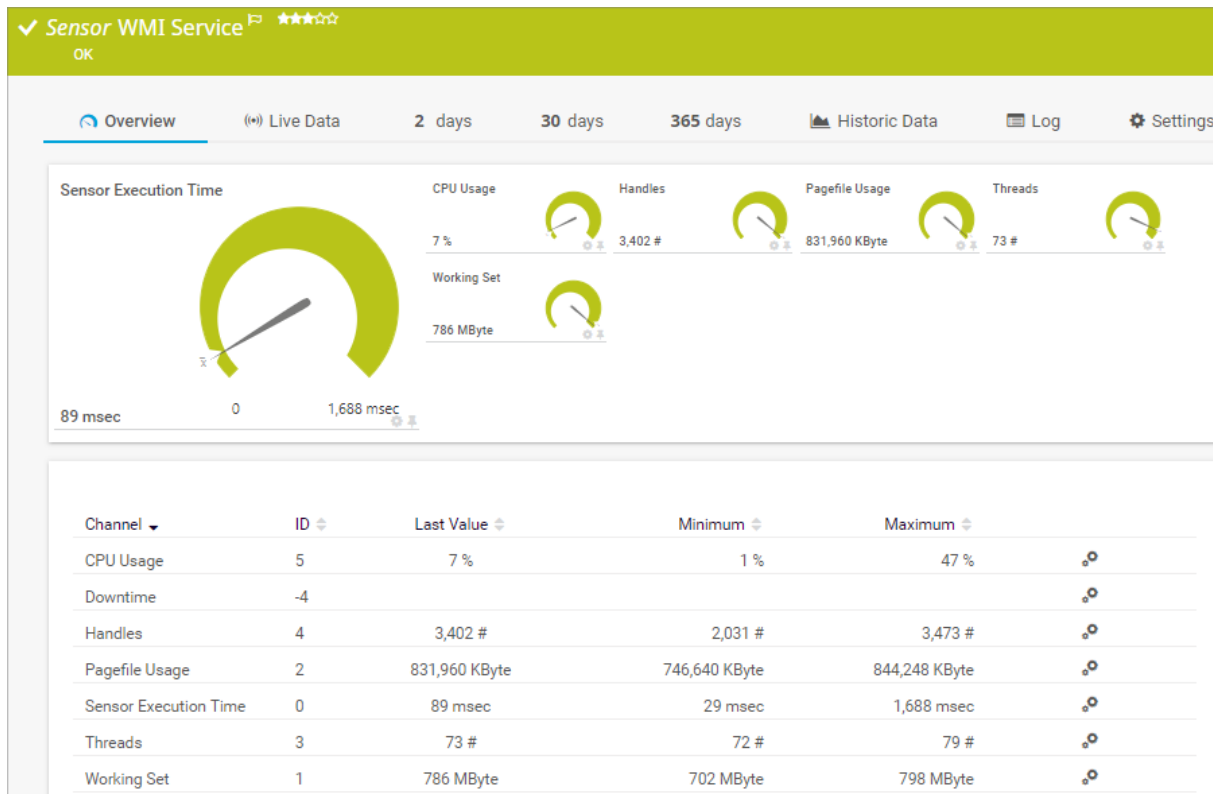
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)⁴⁵⁸¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁶⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.8.270 WMI Service Sensor

The WMI Service sensor monitors a Windows service via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Service Sensor

Sensor in Other Languages

- Dutch: WMI Service
- French: Service WMI
- German: WMI Dienst
- Japanese: WMI サービス
- Portuguese: Serviço WMI
- Russian: WMI
- Simplified Chinese: WMI 服务
- Spanish: WMI servicio

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.

- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) ³⁶¹ dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

WMI Service Monitor

Setting	Description
Services	<p>Select the services that you want to monitor. PRTG creates one sensor for each service that you select.</p> <ul style="list-style-type: none"> ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. ⓘ The name and description appear in the language of the device's Windows installation. ⓘ After creation, the sensor shows the Down status ¹⁹⁷ if the service does not run.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ X +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiservicesensor ▪ servicesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

WMI Service Monitor

WMI Service Monitor

If Service is Not Running [ⓘ] Start/Restart service
 Do not start/restart service

Extended Monitoring [ⓘ] Only check if the service is running
 Monitor other performance counters

Service [ⓘ] *Print Spooler*

Description [ⓘ] *This service spools print jobs and handles interaction with the printer. If you turn off this service, you won't be able to print or see your printers.*

Result Handling [ⓘ] Discard result
 Store result

WMI Service Monitor

Setting	Description
If Service is Not Running	<p>Select whether you want PRTG to start or restart the service if it is stopped or paused:</p> <ul style="list-style-type: none"> Start/Restart service: PRTG tries to start the service if it is not running when the device is scanned. In combination with a change trigger⁴¹³⁸, you can use this mechanism to trigger a notification³³⁸⁷ whenever PRTG (re)starts the service. Do not start/restart service: PRTG does not automatically start any service on the device. <p>[ⓘ] If you select the Start/Restart service option and the sensor detects that the service does not run, PRTG tries to restart the service during this scan and postpones the next sensor scan for one interval. With the following scan, the sensor checks if the service runs now. If starting the service was not successful or if the service fails again, the sensor shows the Down status and does not try to start the service again. If the service runs after a (re)start attempt, the sensor continues monitoring as usual.</p>
If Service is Restarted	<p>This setting is only visible if you select Start/Restart service above. Define what to do if PRTG restarts the service:</p> <ul style="list-style-type: none"> Ignore changes: No action is taken on change. Trigger 'change' notification: The sensor sends an internal message indicating that its value has changed. In combination with a change trigger, you can use this mechanism to trigger a notification whenever the sensor value changes.
Extended Monitoring	<p>Select whether you want to monitor CPU usage and other performance counters:</p> <ul style="list-style-type: none"> Only check if the service is running: PRTG only monitors the channel Sensor Execution Time. Monitor other performance counters: PRTG also monitors other performance counters.

Setting	Description
	<p>i Extended monitoring might cause a class not found error on some Windows systems.</p>
Service	<p>Shows the Windows service that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Description	<p>Shows the description of the service that this sensor monitors.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last result of the requested data in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt, Result of Sensor [ID]-A.txt, and Result of Sensor [ID].Data.txt. This setting is for debugging purposes, especially in combination with content checks. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)


Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes

Setting	Description
	<ul style="list-style-type: none"> ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** ▼
None

Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root


User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited






Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
CPU Usage	<p>The CPU usage in percent</p> <p> Enable Monitor extended values in the sensor settings to show this parameter.</p>

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Handles	The number of handles  Enable Monitor extended values in the sensor settings to show this parameter.
Pagefile Usage	The pagefile usage in bytes  Enable Monitor extended values in the sensor settings to show this parameter.
Sensor Execution Time	The execution time of the monitoring request  This channel is the primary channel by default.
Threads	The number of threads  Enable Monitor extended values in the sensor settings to show this parameter.
Working Set	The working set in bytes  Enable Monitor extended values in the sensor settings to show this parameter.

More

■ KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

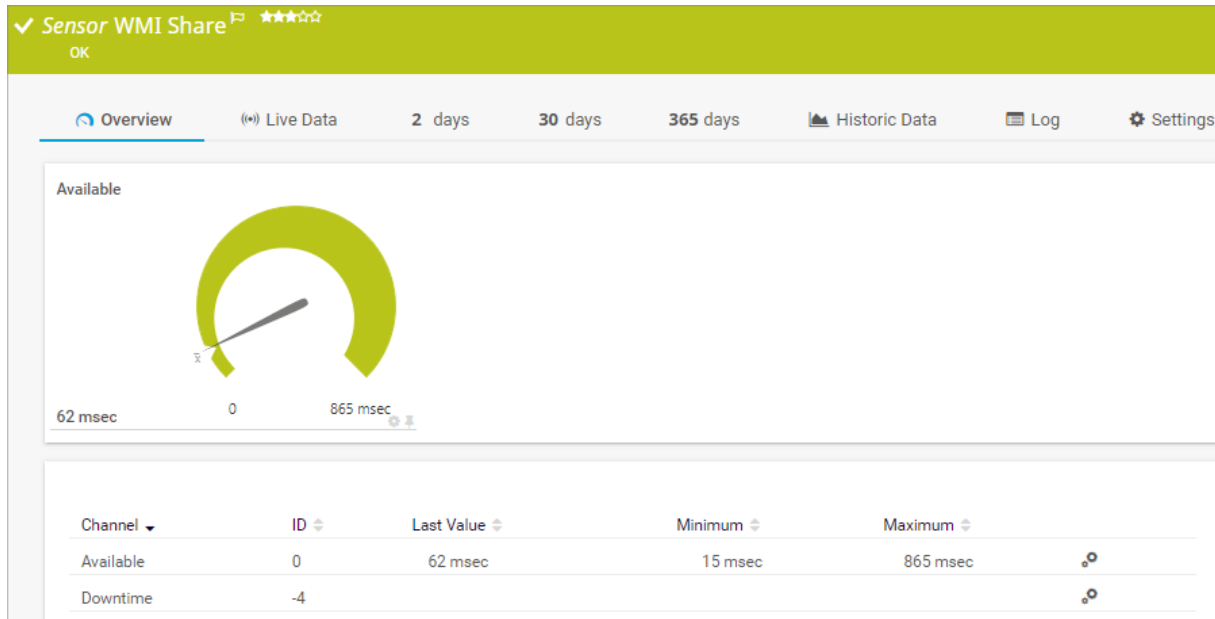
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.271 WMI Share Sensor

The WMI Share sensor monitors a shared resource on a Windows system via Windows Management Instrumentation (WMI).

i You can set the sensor to the Down [status](#)^[197] for different share status messages.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#)^[385].



WMI Share Sensor

Sensor in Other Languages

- Dutch: WMI Share
- French: Partage WMI
- German: WMI Freigabe
- Japanese: WMI 共有
- Portuguese: Compartilhamento WMI
- Russian: WMI
- Simplified Chinese: WMI 共享
- Spanish: Recurso compartido WMI

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[450] for load balancing.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.

- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

WMI Shared Resource

Setting	Description
Shares	<p>Select the shares that you want to monitor. PRTG creates one sensor for each share that you select.</p> <ul style="list-style-type: none"> ⓘ Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner. ⓘ To provide any shares, the LanmanServer "Server" Windows service must run on the target computer. If it does not run, there are no shares and you see a No Share available message.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ ✕ +

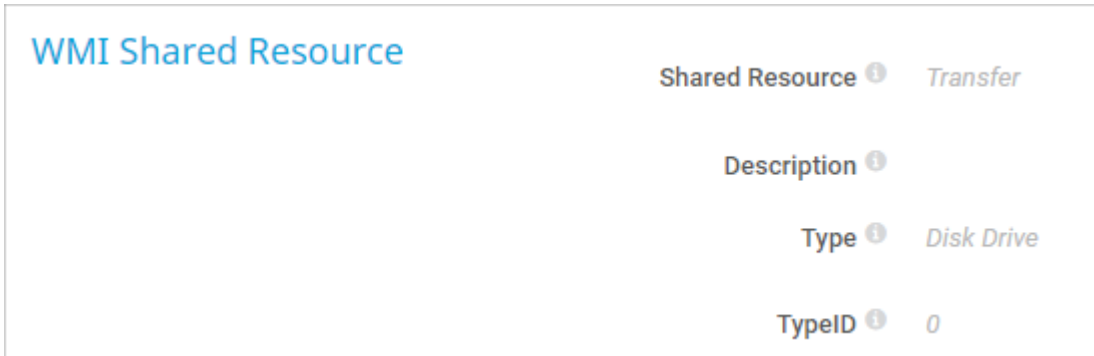
Priority ⓘ ★ ★ ★ ☆ ☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmisharesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[448] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

WMI Shared Resource



WMI Shared Resource

Setting	Description
Shared Resource	Shows information about the shared resource that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Description	Shows the description of the shared resource that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Type	Shows the type of the shared resource that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
TypeID	Shows the typeId of the shared resource that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.

Trigger the Down Status on the Following Conditions

Select under which conditions the sensor shows the Down [status](#)¹⁹⁷. As long as the share returns **OK**, the sensor status shows the Up status. Enable the check box in front of the respective line to select a Down condition. Select none, one, or several of the following conditions.





- i** If the sensor is in the Down status, it does not record any data in any of its channels.

Trigger Down Status on Following Conditions

- Error Alert on this condition
- Degraded Alert on this condition
- Unknown Alert on this condition
- Pred Fail Alert on this condition
- Starting Alert on this condition
- Stopping Alert on this condition
- Service Alert on this condition
- Stressed Alert on this condition
- Nonrecover Alert on this condition
- NoContact Alert on this condition
- LostComm Alert on this condition


Trigger Down Status on Following Conditions

Condition	Description
Error	<p>Set the sensor to the Down status if the share returns an error status. A share in this status is not operational.</p> <p>i This condition is enabled by default.</p>
Degraded	<p>Set the sensor to the Down status if the share returns a degraded status. A share in this status is still operational.</p> <p>i This condition is enabled by default.</p>
Unknown	<p>Set the sensor to the Down status if the share returns an unknown status.</p>
Pred Fail	<p>Set the sensor to the Down status if the share returns a predicted fail status. This indicates that an element works properly but predicts a failure (for example, a SMART-enabled hard drive). A share in this status is still operational.</p>

Condition	Description
	 This condition is enabled by default.
Starting	Set the sensor to the Down status if the share returns a starting status. A share in this status is not operational.
Stopping	Set the sensor to the Down status if the share returns a stopping status. A share in this status is not operational.
Service	Set the sensor to the Down status if the share returns a service status. This can apply during disk mirror-resilvering, reloading a user permissions list, or other administrative work on the device that this sensor monitors. Not all such work is done online, but the managed element is neither OK nor has one of the other states. A share in this status is not operational.
Stressed	Set the sensor to the Down status if the share returns a stressed status.
Nonrecover	Set the sensor to the Down status if the share returns a non recover status.  This condition is enabled by default.
NoContact	Set the sensor to the Down status if the share returns a no contact status.  This condition is enabled by default.
LostComm	Set the sensor to the Down status if the share returns a lost communication status.  This condition is enabled by default.

Debug Options

Debug Options

Result Handling 

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result.

Setting	Description
	<ul style="list-style-type: none"> Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel **Downtime**


Graph Type **Show channels independently (default)**

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings



By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

For more information, see section [Inheritance of Settings](#).

Scanning Interval

Click  to interrupt the inheritance.


Scanning Interval

 inherit from  Root

Scanning Interval ⓘ 60 seconds

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

inherit from Root

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel List

- Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Available	<p>The availability of the share in milliseconds (msec)</p> <p> This channel is the primary channel by default.</p>
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

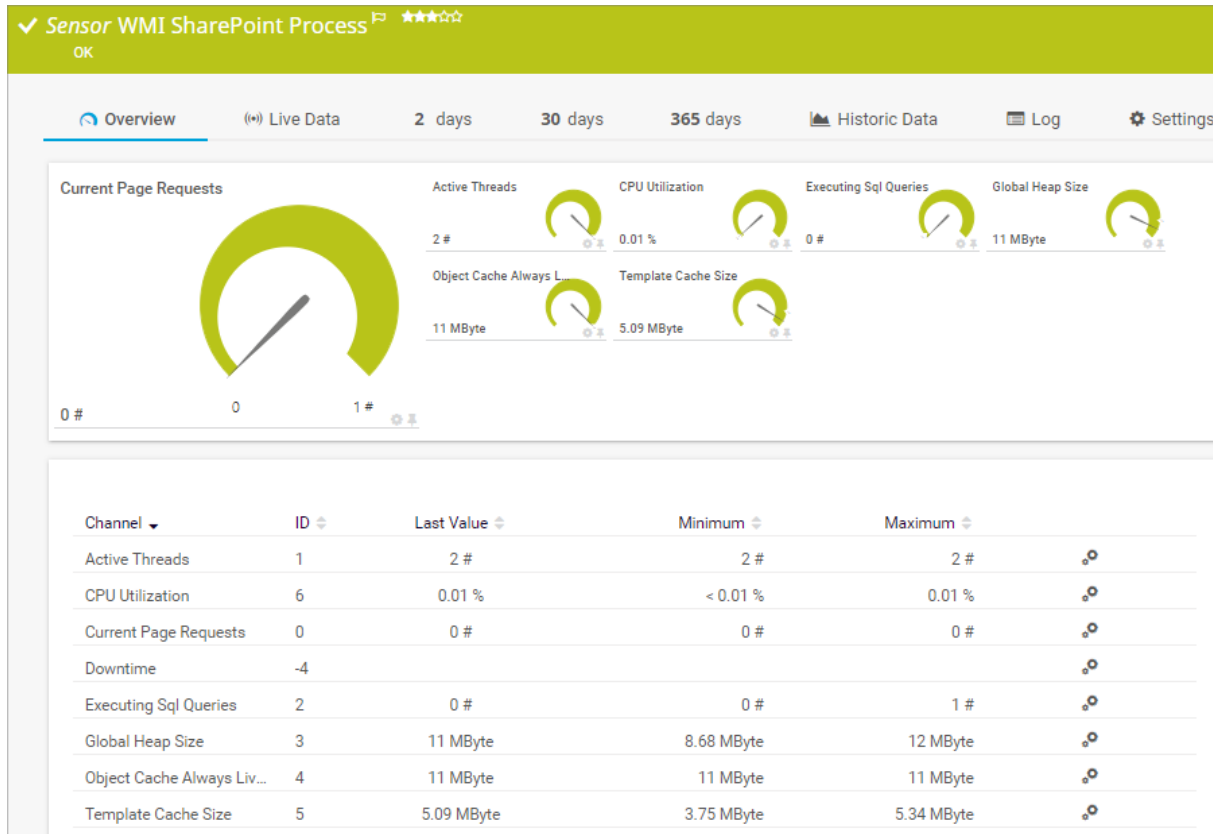
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3967

7.8.272 WMI SharePoint Process Sensor

The WMI SharePoint Process sensor monitors a Microsoft SharePoint server via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI SharePoint Process Sensor


Sensor in Other Languages

- Dutch: WMI SharePoint Proces
- French: Processus WMI SharePoint
- German: WMI SharePoint-Prozess
- Japanese: WMI SharePoint プロセス
- Portuguese: Processo WMI SharePoint
- Russian: SharePoint WMI
- Simplified Chinese: WMI SharePoint 进程
- Spanish: WMI proceso SharePoint

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.

- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports the IPv6 protocol.


 You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

 The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

WMI Process Monitor

Setting	Description
SharePoint Processes	<p>Select the SharePoint processes that you want to monitor. PRTG creates one sensor for each process that you select.</p> <p> Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ ⊕

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiprocesssensor ▪ wmi-sharepoint-processsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

WMI Process Monitor

WMI Process Monitor
SharePoint Process ⓘ _Total

WMI Process Monitor

Setting	Description
SharePoint Process	Shows the name of the SharePoint process that this sensor monitors.

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>

Debug Options

Debug Options

Result Handling **i**
 Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display


Sensor Display

Primary Channel **i** Downtime


Graph Type **i**
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking + below a channel gauge on the sensor's Overview tab.</p>

Setting	Description
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes

Setting	Description
If a Sensor Query Fails	<ul style="list-style-type: none"> ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> i You can change the available intervals in the system administration on PRTG on premises installations. </p> <p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p> i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply. </p> <p> i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply. </p> <p> i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply. </p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None ▼

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB <input type="text"/>
	kbit <input type="text"/>
	/ <input type="text"/>
	sec... <input type="text"/>
Bytes (Memory)	MB <input type="text"/>
Bytes (Disk)	MB <input type="text"/>
Bytes (File)	Byte <input type="text"/>


Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Active Threads	The number of active threads
CPU Utilization	The CPU usage in percent
Current Page Requests	The number of current page requests

Channel	Description
	 This channel is the primary channel by default.
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Executing SQL Queries	The number of Structured Query Language (SQL) queries being executed
Global Heap Size	The global heap size in bytes
Object Cache Always Live Size	The object cache always live size in bytes
Template Cache Size	The template cache size in bytes

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

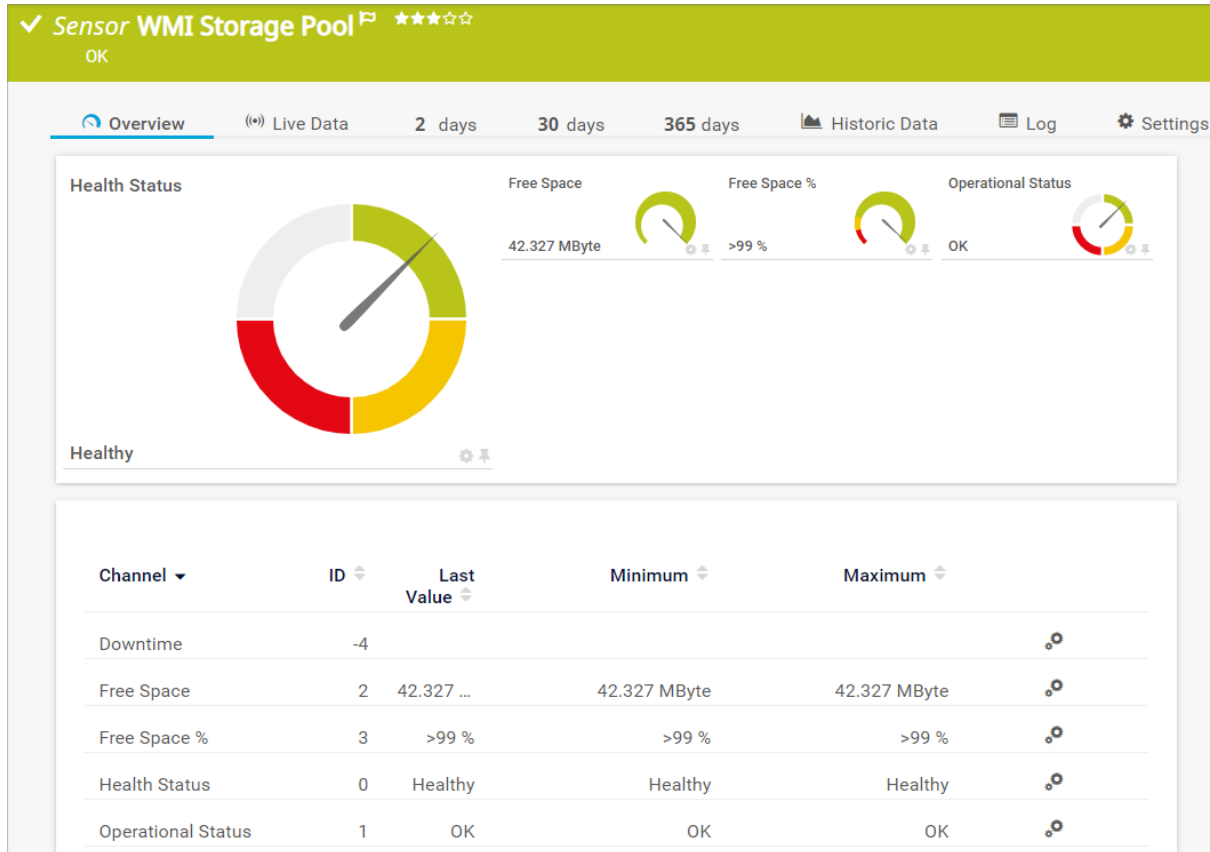
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.273 WMI Storage Pool Sensor

The WMI Storage Pool sensor monitors a storage pool via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Storage Pool Sensor

Sensor in Other Languages

- Dutch: WMI opslagpool
- French: Pool de stockage WMI
- German: WMI Speicherpool
- Japanese: WMI ストレージプール
- Portuguese: Pool de armazenamento WMI
- Russian: WMI
- Simplified Chinese: WMI 存储池
- Spanish: Conjunto de almacenamiento WMI

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.

- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports Windows 8 or Windows Server 2012 or later on the target system.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

i The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

WMI Storage Pool Specific

Setting	Description
Storage Pools	<p>Select the storage pools that you want to monitor. PRTG creates one sensor for each storage pool that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ exampletag ✕ +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ <code>wmistoragepoolsensor</code> ▪ <code>storagepoolsensor</code>
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

WMI Storage Pool Specific

WMI Storage Pool Specific

Friendly Name ⓘ *Storage Pool*

Timeout (Sec.) ⓘ

WMI Storage Pool Specific

Setting	Description
Friendly Name	Shows a user-friendly name for the storage pool.
Timeout (Sec.)	<p>Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 900 seconds (15 minutes).</p> <p>i If the reply takes longer than this value, the sensor cancels the request and shows a corresponding error message.</p>

Debug Options

Debug Options

Result Handling **i**

 Discard result

 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display




Primary Channel **i** Downtime

Graph Type **i**


 Show channels independently (default)

 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule None

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

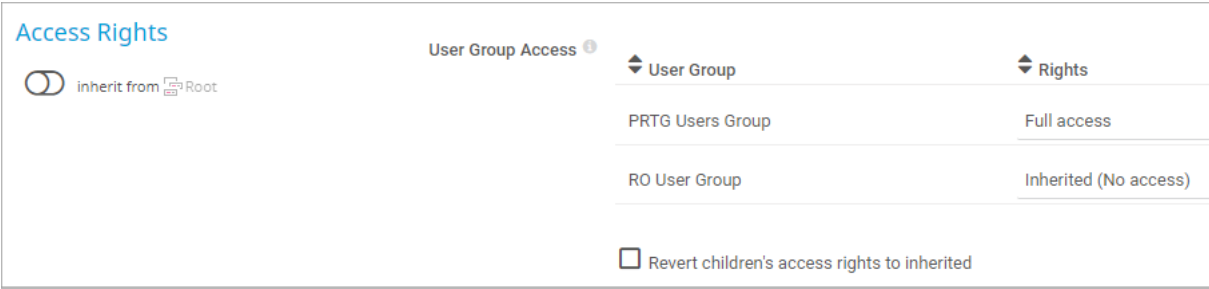
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>

Access Rights

Click  to interrupt the [inheritance](#) [142].



User Group Access	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights


Setting	Description
User Group Access	<p>Define the user groups [421] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

i Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

inherit from  Root

Channel Unit Types **i**


Channel Type	Unit
Bytes (Bandwidth)	KB ▼
	kbit ▼
	/ ▼
	sec... ▼
Bytes (Memory)	MB ▼
Bytes (Disk)	MB ▼
Bytes (File)	Byte ▼

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Space	The free space in bytes
Free Space %	The free space in percent
Health Status	<p>The health status</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Healthy ▪ Warning status: Warning ▪ Down status: Unhealthy ▪ Unknown status: Unknown <p> This channel is the primary channel by default.</p>
Operational Status	<p>The operational status</p> <ul style="list-style-type: none"> ▪ Up status: OK ▪ Warning status: Warning ▪ Down status: Error ▪ Unknown status: Starting

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

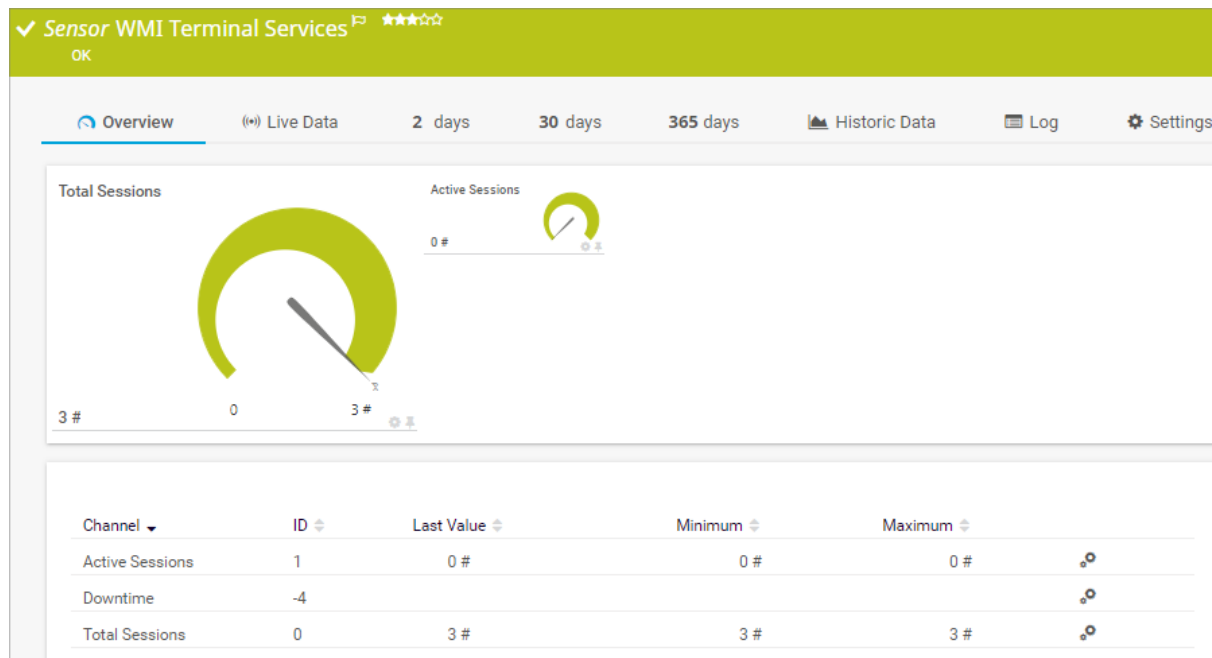
- [List of Available Sensor Types](#)⁴⁵⁹¹
- [Additional Sensor Types \(Custom Sensors\)](#)³⁹⁷²
- [Channel Settings](#)³⁹⁷⁷
- [Notification Triggers Settings](#)³⁹⁸⁷

7.8.274 WMI Terminal Services (Windows 2008+) Sensor

The WMI Terminal Services (Windows 2008+) sensor monitors the number of sessions on a Windows Terminal Services (Remote Desktop Services) server via Windows Management Instrumentation (WMI).

i The sensor supports Windows 2008 R2 and later.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Terminal Services (Windows 2008+) Sensor

Sensor in Other Languages

- Dutch: WMI Terminal Services (Windows 2008+)
- French: Services de terminal WMI (Windows 2008+)
- German: WMI Terminaldienste (Windows 2008+)
- Japanese: WMI ターミナルサービス (Windows 2008 以降)
- Portuguese: Serviços de terminal WMI (Windows 2008+)
- Russian: WMI (Windows 2008)
- Simplified Chinese: WMI 终端服务 (Windows 2008+)
- Spanish: WMI Terminal Services (Windows 2008+)

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.

- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports the IPv6 protocol.
- For the Total Sessions channel, the sensor returns the number of active and inactive sessions, plus two additional sessions: one for the console, and one for the services. So, the number of total sessions might actually be higher than expected.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Setting	Description
Sensor Name	Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree , as well as in alarms , logs , notifications , reports , maps , libraries , and tickets . i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?
Parent Tags	Shows tags that the sensor inherits from its parent device , parent group , and parent probe . i This setting is for your information only. You cannot change it.

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ¹⁴⁵.</p> <ul style="list-style-type: none"> ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiterminalservicessensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Debug Options

Debug Options

Result Handling ⓘ

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <ul style="list-style-type: none"> ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management.</p>

Channel List

- ❗ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Active Sessions	The number of active sessions: sessions with a logged in user, including used published applications
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Total Sessions	<p>The total number of sessions (including inactive sessions): inactive sessions can be sessions with a disconnected user that has not logged out or system services using a session</p> <p>❗ This channel is the primary channel by default.</p>

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>





Part 7: Device and Sensor Setup | 8 Sensor Settings
274 WMI Terminal Services (Windows 2008+) Sensor

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

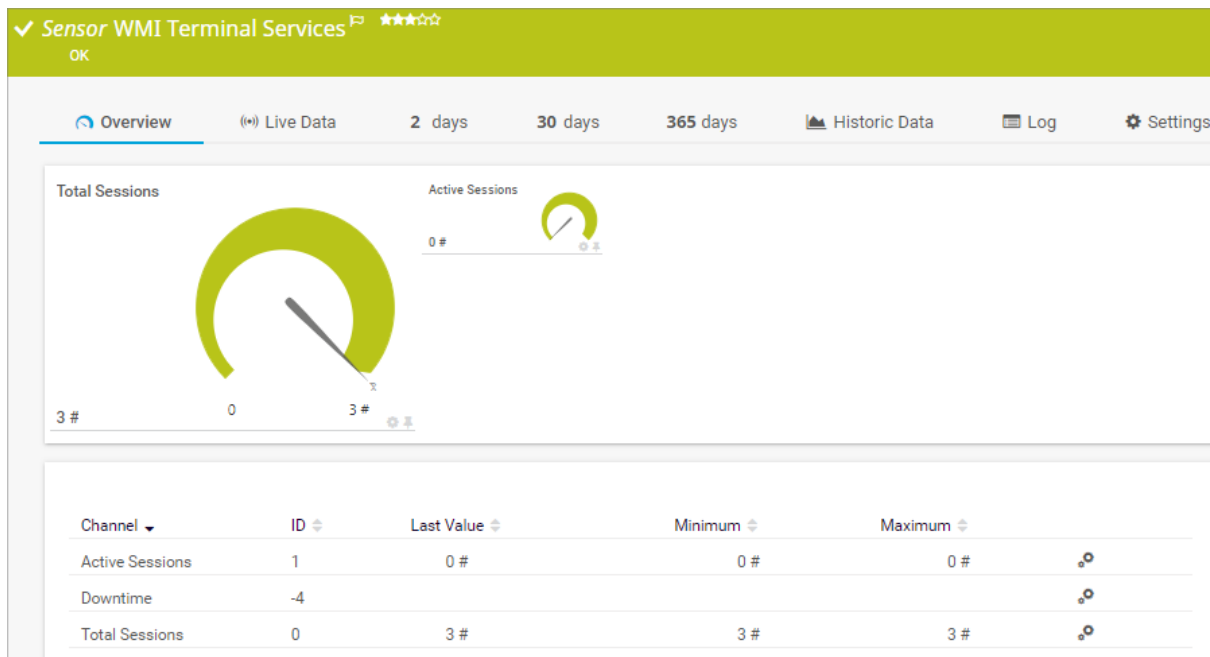
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.275 WMI Terminal Services (Windows XP/Vista/2003) Sensor

The WMI Terminal Services (Windows XP/Vista/2003) sensor monitors the number of sessions on a Windows Terminal Services (Remote Desktop Services) server via Windows Management Instrumentation (WMI).

i The sensor supports Windows XP, Vista, or 2003.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Terminal Services (Windows XP/Vista/2003) Sensor

Sensor in Other Languages

- Dutch: WMI Terminal Services (Windows XP/Vista/2003)
- French: Services de terminal WMI (Windows XP/Vista/2003)
- German: WMI Terminaldienste (Windows XP/Vista/2003)
- Japanese: WMI ターミナルサービス (Windows XP/Vista/2003)
- Portuguese: Serviços de terminal WMI (Windows XP/Vista/2003)
- Russian: WMI (Windows XP/Vista/2003)
- Simplified Chinese: WMI 终端服务 (Windows XP/Vista/2003)
- Spanish: WMI Terminal Services (Windows XP/Vista/2003)

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.

- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor supports the IPv6 protocol.
- For the Total Sessions channel, the sensor returns the number of active and inactive sessions, plus two additional sessions: one for the console, and one for the services. So, the number of total sessions might actually be higher than expected.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a dialog box titled "Basic Sensor Settings". It contains three main sections:

- Sensor Name**: A text input field containing "Example Name".
- Tags**: A list of tags, currently showing "exampletag" with a close button (X) and an add button (+).
- Priority**: A star rating system showing 5 stars, with the first three stars filled.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ¹⁴⁵.</p> <ul style="list-style-type: none"> ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>). ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added. <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiterminalservicessensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Debug Options

Debug Options

Result Handling ⓘ

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <ul style="list-style-type: none"> ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁹⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴²¹.

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴²¹.

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** ▼
None




Maintenance Window **i**
 Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i**
 Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>



Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

 User Group	 Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management.</p>

Channel List

- ❗ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Active Sessions	The number of active sessions: sessions with a logged in user, including used published applications
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Total Sessions	<p>The total number of sessions (including inactive sessions): inactive sessions can be sessions with a disconnected user that has not logged out or system services using a session</p> <p>❗ This channel is the primary channel by default.</p>

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>





Part 7: Device and Sensor Setup | 8 Sensor Settings
275 WMI Terminal Services (Windows XP/Vista/2003) Sensor

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

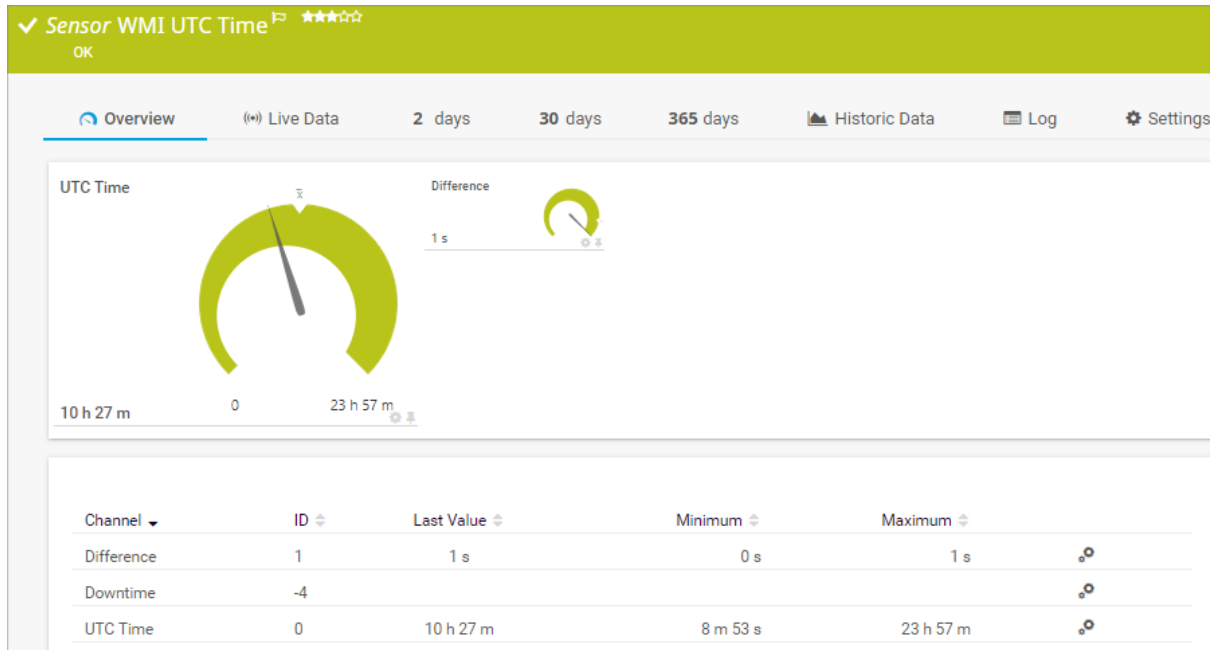
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.276 WMI UTC Time Sensor

The WMI UTC Time sensor monitors the Coordinated Universal Time (UTC) time of a target device via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI UTC Time Sensor

Sensor in Other Languages

- Dutch: WMI UTC Tijd
- French: Heure UTC WMI
- German: WMI UTC-Zeit
- Japanese: WMI UTC 時間
- Portuguese: Tempo UTC de WMI
- Russian: WMI UTC
- Simplified Chinese: WMI UTC 时间
- Spanish: WMI tiempo UTC

Remarks

- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor has a low performance impact.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows the 'Basic Sensor Settings' dialog box. It has a title bar 'Basic Sensor Settings'. Below the title bar, there are three rows of settings:

- Sensor Name**: A text input field containing 'Example Name'.
- Tags**: A text input field containing 'exampletag' with a close button (X) and a plus button (+) to the right.
- Priority**: A set of five stars, with the first three stars filled and the last two empty.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
	<p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmiutctimesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

Debug Options

Debug Options

Result Handling ⓘ
 Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>ⓘ In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>




Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ
 Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[397]).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings


By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)^[142].


Scanning Interval

Click  to interrupt the [inheritance](#)^[142].

Scanning Interval

Scanning Interval  60 seconds

 inherit from  Root

If a Sensor Query Fails  Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans.</p>

Setting	Description
	<p>Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p>

Setting	Description
	<p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root




Schedule **None**

Maintenance Window **Do not set up a one-time maintenance window**
 Set up a one-time maintenance window

Dependency Type **Use parent**
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

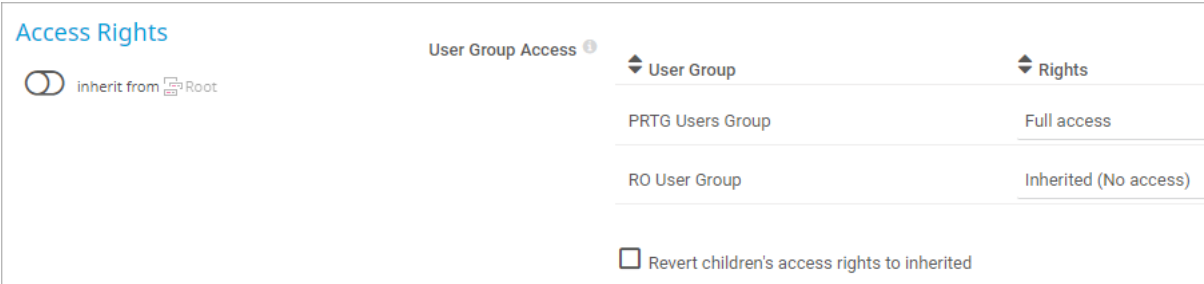
Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules.</p>

Setting	Description
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> Use parent: Use the dependency type of the parent object. Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies⁴⁰²³, select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector²⁵¹ to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p>

Setting	Description
	<p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p>i This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings [446] or in its parent group settings [413].</p>


Access Rights

Click  to interrupt the [inheritance](#) [142].



Access Rights

User Group Access ⓘ

inherit from  Root

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups [4219] that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management [158].</p>

Channel List

- ❗ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Difference	The time difference between the PRTG core server system time and the target device in seconds
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
UTC Time	The UTC time of the target device <ul style="list-style-type: none"> ❗ This channel is the primary channel by default.

More

■ KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

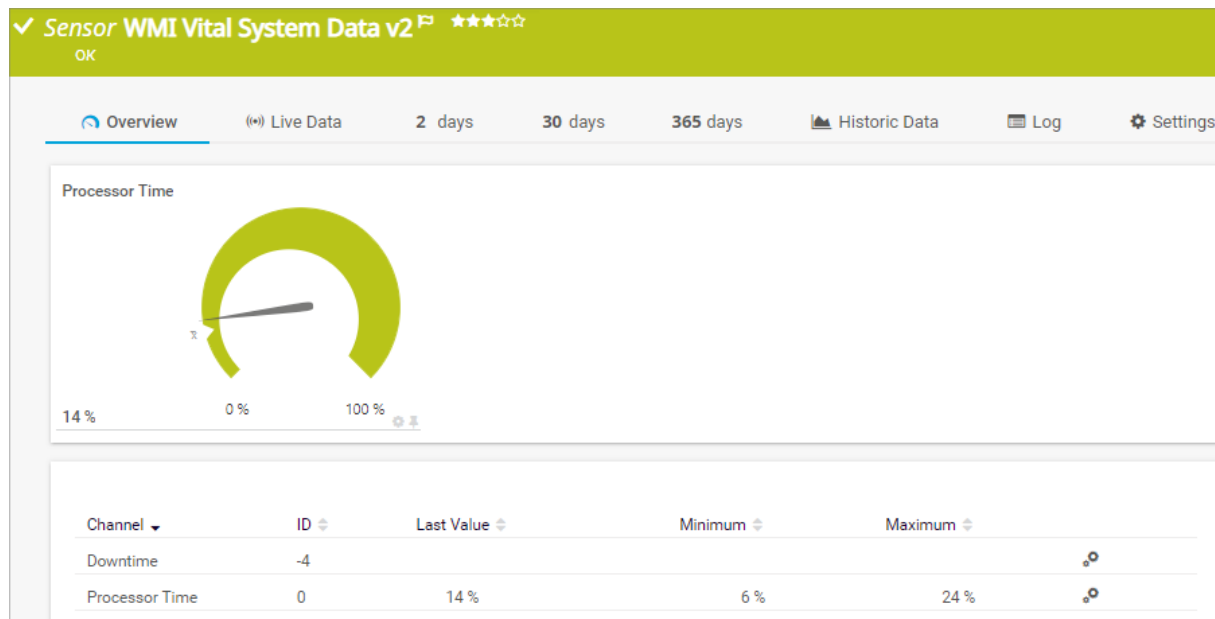
- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3672
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.277 WMI Vital System Data v2 Sensor

The WMI Vital System Data v2 sensor monitors vital system parameters via Windows Management Instrumentation (WMI).

i The sensor can monitor CPU, thread, memory, network, or pagefile, for example.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Vital System Data v2 Sensor

Sensor in Other Languages

- Dutch: WMI Vitale Systeem Gegevens V2
- French: Données système vitales WMI v2
- German: WMI Wichtige Systemdaten v2
- Japanese: WMI バイタルシステムデータ (V2)
- Portuguese: WMI Dados vitais do sistema v2
- Russian: WMI v2
- Simplified Chinese: WMI 关键系统数据 v2
- Spanish: Datos vitales de sistema WMI v2

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#). Above this number, consider using multiple [remote probes](#) for load balancing.
- This sensor requires [credentials for Windows systems](#) in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.

- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

- ⓘ The settings that you select in the Add Sensor dialog are valid for all sensors that you create when you finish the dialog.

Vital System Data Readings Accessible Using WMI

Setting	Description
Performance Counters	<p>Select the performance counters that you want to monitor. PRTG creates one sensor for each counter that you select.</p> <p>You see a list of available vital system data values the sensor can monitor on the target device. The available options depend on your configuration. PRTG shows all possible performance counters with the name and instance description (if available).</p> <p>Choose from the following counters:</p> <ul style="list-style-type: none">▪ CPU▪ Thread▪ Memory▪ Network▪ Pagefile <p>ⓘ You can also select all items or cancel the selection by using the check box in the table header.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag ✕ +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmvitalsystemdatasensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

ⓘ Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Vital System Data Readings Accessible Using WMI

Vital System Data Readings Accessible Using WMI

Display Name ⓘ	<i>CPU: Percent User Time</i>
Instance ⓘ	<i>_Total</i>
WMI Class ⓘ	<i>Win32_PerfRawData_PerfOS_Processor</i>
Counter ⓘ	<i>PercentUserTime</i>
Time Stamp ⓘ	<i>Timestamp_Sys100NS</i>
Time Frequency ⓘ	
Counter Type ⓘ	<i>PERF_100NSEC_TIMER</i>
Result Handling ⓘ	<input checked="" type="radio"/> Discard result <input type="radio"/> Store result

Vital System Data Readings Accessible Using WMI

Setting	Description
Display Name	<p>Shows the display name that the sensor uses to query data from the target device.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Instance	<p>Shows the instance that the sensor uses to query data from the target device.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
WMI Class	<p>Shows the WMI class that the sensor uses to query data from the target device.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Counter	<p>Shows the counter that the sensor uses to query data from the target device.</p> <p> ⓘ PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Time Stamp	<p>Shows the time stamp that the sensor uses to query data from the target device.</p>

Setting	Description
	<p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Time Frequency	<p>Shows the time frequency that the sensor uses to query data from the target device.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Counter Type	<p>Shows the counter type that the sensor uses to query data from the target device.</p> <p>i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.</p>
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel **i** Downtime

Graph Type **i** Show channels independently (default)


Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p>

Setting	Description
	<ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings³⁹⁷⁷).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)³⁸⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



 For more information, see section [Inheritance of Settings](#)¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#)¹⁴².

Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> 30 seconds 60 seconds 5 minutes 10 minutes 15 minutes

Setting	Description
	<ul style="list-style-type: none"> ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p>i You can change the available intervals in the system administration on PRTG on premises installations.</p>
<p>If a Sensor Query Fails</p>	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

Inherit from Root





Schedule **i** None

Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows


Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below.

Setting	Description
	<p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: if the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies ^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ¹⁴².


Access Rights

inherit from  Root

User Group Access ¹	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p> For more details on access rights, see section Access Rights Management ¹⁵³.</p>

Channel Unit Configuration

Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>ⓘ Custom channel types are only available on sensor level.</p>

Channel List

ⓘ Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Bytes In All Heaps	The common language runtime (CLR) memory bytes in all heaps
Bytes Total/Sec	The total number of bytes per second
Committed	The committed bytes

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Exceptions	The number of thrown CLR exceptions
Free Physical Memory	The free physical memory
Packets Outbound Errors	The number of outbound packet errors
Queue Length	The CPU queue length
Total Visible Memory	The total visible memory
User Time	The CPU user time in percent

More

KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

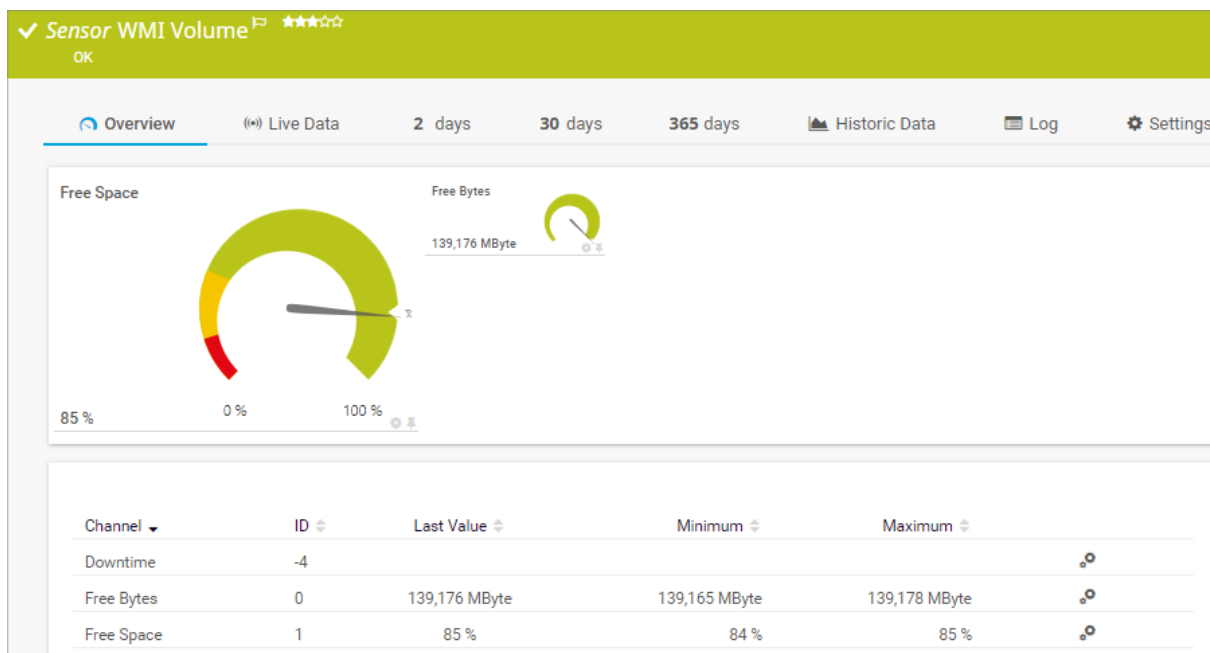
7.8.278 WMI Volume Sensor

The WMI Volume sensor monitors the free disk space on a drive, logical volume, or mount point via Windows Management Instrumentation (WMI).

i The sensor monitors an area of storage on a hard disk. It can monitor local volumes that are formatted, unformatted, mounted, or offline. A volume is formatted by using a file system such as file allocation table (FAT) or New Technology File System (NTFS), and might have a drive letter assigned to it. One hard disk can have multiple volumes, and volumes can span multiple physical disks.

i The sensor does not support disk drive management.

■ For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WMI Volume Sensor

Sensor in Other Languages

- Dutch: WMI Volume
- French: Disque WMI
- German: WMI Datenträger
- Japanese: WMI ボリューム
- Portuguese: Volume de WMI
- Russian: WMI
- Simplified Chinese: WMI 卷
- Spanish: WMI Volumen

Remarks

- This sensor has a high performance impact. Try to stay below 200 WMI sensors in total per [probe](#)^[130]. Above this number, consider using multiple [remote probes](#)^[450] for load balancing.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- This sensor requires WoW64 (Windows 32-bit on Windows 64-bit) for target systems that run Windows Server 2016.
- This sensor does not support Windows XP and earlier.
- This sensor supports the IPv6 protocol.

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Add Sensor

The [Add Sensor](#)^[36] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

WMI Volume Specific

Setting	Description
Volumes	<p>Select the volumes (drives, logical volumes, mount points) that you want to monitor. PRTG creates one sensor for each volume that you select.</p> <p>i Add check marks in front of the respective lines to select the items. Use the check box in the table header to select all items or to cancel the selection. In large tables, use the search function in the upper-right corner.</p>

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ Example Name

Tags ⓘ ✕ +

Priority ⓘ ★★☆☆☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[406], maps^[406], libraries^[407], and tickets^[240].</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>i This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ wmvolumesensor ▪ diskspacesensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#)^[446] for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

WMI Volume Specific

WMI Volume Specific

DeviceID **i**

Drive Type **i** Unknown

ID Selection **i** Use system device ID (recommended)
 Use drive letter

WMI Volume Specific

Setting	Description
DeviceID	Shows the unique identifier of the volume that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
Drive Type	Shows the type of disk drive that this sensor monitors. i PRTG shows this value for reference purposes only. If you need to change this value, add the sensor anew.
ID Selection	Define how the sensor identifies the volume: <ul style="list-style-type: none"> ▪ Use system device ID (recommended): Use the system device ID. This is usually the best option for this sensor because the device ID does not change when the volume is renamed. ▪ Use drive letter: Use the drive letter. In a Microsoft cluster environment, the device ID changes when the cluster is switched to a different node. We recommend that you select this option in this case.
Drive Letter	This setting is only visible if you select Use drive letter above. Enter the letter of the drive that you want to monitor followed by a colon, for example, C:

Debug Options

Debug Options Result Handling **i**

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result. ▪ Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory on the probe system. The file name is Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display


Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p> ⓘ You can set a different primary channel later by clicking ⓘ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel. ▪ Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p> ⓘ You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#) ³⁶⁶ if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.

 For more information, see section [Inheritance of Settings](#) ¹⁴².

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².

Scanning Interval	
Scanning Interval ⓘ	60 seconds
inherit from Root	
If a Sensor Query Fails ⓘ	Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> ⓘ You can change the available intervals in the system administration on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i**




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00)


Setting	Description
Maintenance Window	<ul style="list-style-type: none"> ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules⁴¹⁷⁰.</p> <p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

 inherit from  Root

Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p>i Custom channel types are only available on sensor level.</p>

Channel List

i Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Free Bytes	The free space in bytes
Free Space	<p>The free space in percent</p> <p>i This channel is the primary channel by default.</p>

More

■ KNOWLEDGE BASE

What security features does PRTG include?





- <https://kb.paessler.com/en/topic/61108>

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Sensor Settings Overview

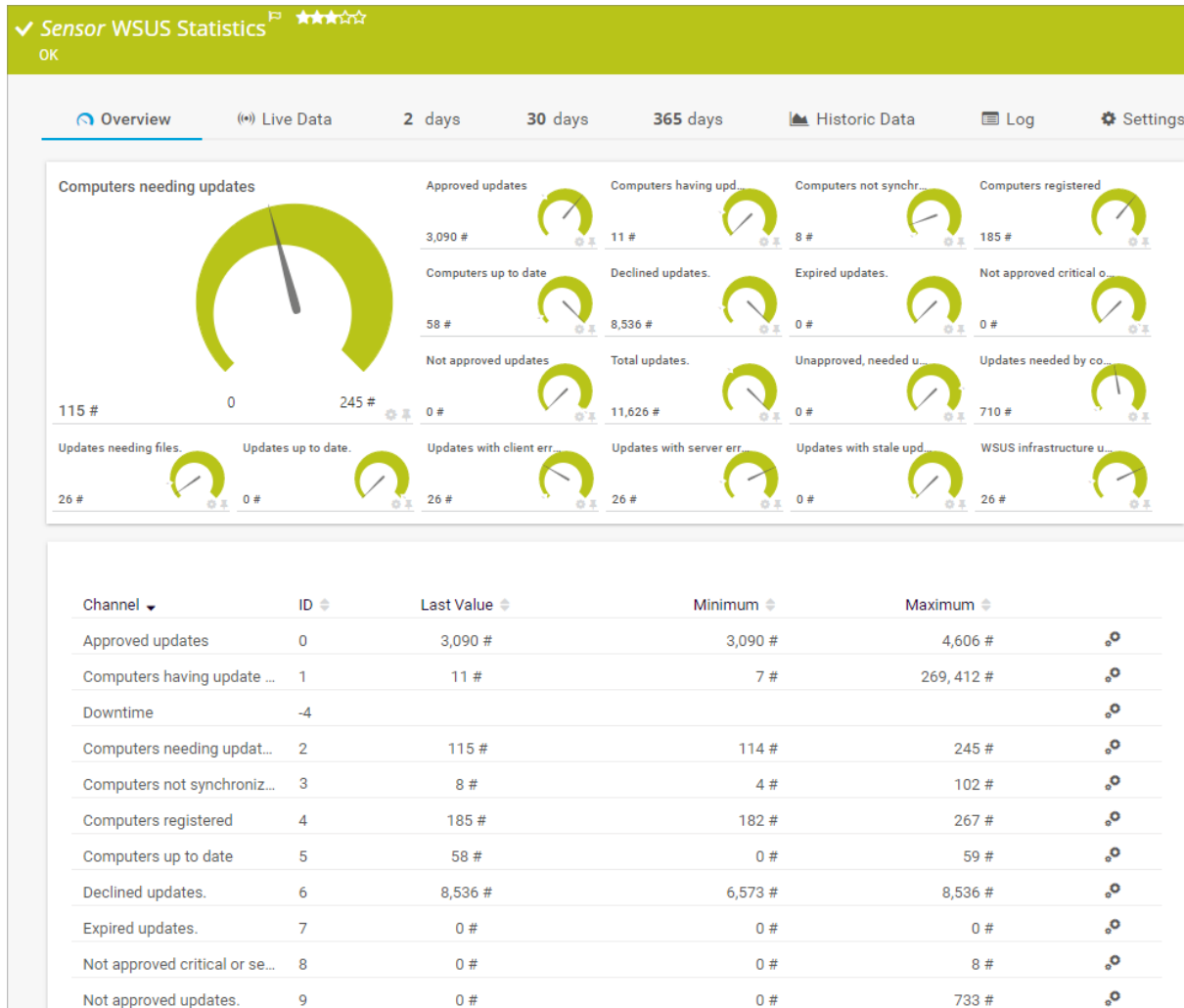
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.8.279 WSUS Statistics Sensor

The WSUS Statistics sensor monitors various statistics on a Windows Server Update Services (WSUS) server via Windows Management Instrumentation (WMI).

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



WSUS Statistics Sensor

Sensor in Other Languages

- Dutch: WSUS Statistieken
- French: Statistiques WSUS
- German: WSUS-Statistiken
- Japanese: WSUS 統計情報
- Portuguese: Estatísticas WSUS
- Russian: WSUS
- Simplified Chinese: WSUS 统计

- Spanish: Estadísticas WSUS

Remarks

- This sensor has a high performance impact. Use it with care. We recommend that you use no more than 200 sensors of this sensor type on each probe.
- This sensor [requires](#)^[3947] WSUS 3.0 Administration Console on the probe system.
- This sensor requires .NET 4.7.2 or later on the probe system. If the sensor shows the error PE087, additionally install .NET 3.5 on the probe system.
- This sensor requires [credentials for Windows systems](#)^[452] in the settings of the parent device.
- We recommend Windows 2012 R2 on the probe system for best performance of this sensor.
- This sensor supports the IPv6 protocol.
- See the Knowledge Base: [Can I encrypt connections to my WSUS server?](#)

☁ You cannot add this sensor to the hosted probe of a PRTG Hosted Monitor instance. If you want to use this sensor, add it to a remote probe device.

Detailed Requirements

Requirement	Description
.NET Framework	<p>This sensor requires the Microsoft .NET Framework. .NET 4.7.2 or later must be installed on the probe system (on every cluster node, if on a cluster probe).</p> <p>i If the framework is missing, you cannot create this sensor.</p> <p>■ For more information, see the Knowledge Base: Which .NET version does PRTG require?</p>
Windows credentials	<p>This sensor requires credentials for Windows systems^[452] in the settings of the parent device. Preferably, use Windows domain credentials.</p> <p>i If you use local credentials, make sure that the same Windows user accounts (with the same user name and password) exist on both the probe system and the target computer. Otherwise, the sensor cannot correctly connect.</p>
WSUS 3.0 Administration Console	<p>For this sensor to work, the Microsoft WSUS 3.0 Administration Console must be installed on the probe system. In a cluster, it must be installed on every cluster node.</p>

Add Sensor

The [Add Sensor](#)^[361] dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

Basic Sensor Settings

Sensor Name ⓘ

Tags ⓘ

Priority ⓘ

Example Name

exampletag × +

★★★★☆

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree^[183], as well as in alarms^[228], logs^[237], notifications^[403], reports^[409], maps^[405], libraries^[407], and tickets^[240].</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags^[145] that the sensor inherits^[145] from its parent device^[140], parent group^[139], and parent probe^[139].</p> <p>ⓘ This setting is for your information only. You cannot change it.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>ⓘ It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ ptfsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (★★★★☆) to the highest priority (★★★★★).</p>

i Usually, a sensor connects to the IP Address or DNS Name of the parent device. See the [device settings](#) for details. For some sensors, you can explicitly define the monitoring target in the sensor settings.

Sensor Settings

Sensor Settings

WSUS Server Port ⓘ 8530

Connection Security ⓘ

Use SSL/TLS
 Do not use connection security

Sensor Settings

Setting	Description
WSUS Server Port	Enter the number of the port the WSUS server service runs on. The default value is 8530. Enter an integer value.
Connection Security	Define if you want to use Secure Sockets Layer (SSL)/Transport Layer Security (TLS) for the connection to the WSUS server or if you prefer unsecured connections: <ul style="list-style-type: none"> ▪ Use SSL/TLS ▪ Do not use connection security <p>■ If you want to use SSL/TLS, you must configure the WSUS server accordingly. For details, see the Knowledge Base: Can I encrypt connections to my WSUS server?</p>

Debug Options

Debug Options

Result Handling ⓘ

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	Define what PRTG does with the sensor result: <ul style="list-style-type: none"> ▪ Discard result: Do not store the sensor result.

Setting	Description
	<ul style="list-style-type: none"> Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory ⁴⁵²⁶ on the probe system. The file names are Result of Sensor [ID].txt and Result of Sensor [ID].Data.txt. This setting is for debugging purposes. PRTG overwrites these files with each scanning interval. <p>i In a cluster, PRTG stores the result in the PRTG data directory of the master node.</p>

Sensor Display

Sensor Display

Primary Channel **ⓘ** Downtime


Graph Type **ⓘ** Show channels independently (default)

Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking ⌵ below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> Show channels independently (default): Show a graph for each channel. Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <p>i You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings ³⁹⁷⁷).</p>
Stack Unit	<p>This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.



■ For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#)^[142].


Scanning Interval

Scanning Interval ⓘ 60 seconds

 inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration^[4187] on PRTG on premises installations.</p>

Setting	Description
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails. ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup⁴⁴⁸⁵ values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root




Schedule None ▼

Maintenance Window Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p> You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules ⁴¹⁷⁰.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p> To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>

Setting	Description
Maintenance Ends	This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency. <p> To test your dependencies^[4023], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings^[446] or in its parent group settings^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#)^[142].

Access Rights

inherit from Root

User Group Access ⓘ	User Group	Rights
	PRTG Users Group	Full access
	RO User Group	Inherited (No access)

Revert children's access rights to inherited

Access Rights

Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>

Channel Unit Configuration

Click to interrupt the [inheritance](#) ¹⁴².

ⓘ Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).

Channel Unit Configuration

Channel Unit Types ⓘ

inherit from Root

Channel Type	Unit
Bytes (Bandwidth)	KB
	kbit
	/
	sec...
Bytes (Memory)	MB
Bytes (Disk)	MB
Bytes (File)	Byte

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Approved Updates	The number of approved updates
Computers Having Update Errors	The number of computers that have update errors

Channel	Description
Computers Needing Updates	The number of computers that need updates
Computers Not Synchronized for 7 Days	The number of computers that have not synchronized for seven days
Computers Registered	The number of computers that are registered
Computers Up To Date	The number of computers that are up to date
Declined Updates	The number of updates that were declined
Downtime	In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.
Expired Updates	The number of updates that are expired
Not Approved Critical Or Security Updates	The number of critical or security updates that were not approved
Not Approved Updates	The number of updates that were not approved
Total Updates	The total number of updates
Unapproved, Needed Updates	The number of updates that are unapproved but needed
Updates Needed By Computers	The number of updates that computers need
Updates Needing Files	The number of updates that need files
Updates Up To Date	The number of updates that are up to date
Updates With Client Errors	The number of updates that have client errors
Updates With Server Errors	The number of updates that have server errors
Updates With Stale Update Approvals	The number of updates that have stale update approvals

Channel	Description
WSUS Infrastructure Updates Not Approved For Install	The number of WSUS infrastructure updates that were not approved for installation

More

■ KNOWLEDGE BASE

Can I encrypt connections to my WSUS server?

- <https://kb.paessler.com/en/topic/63611>

Which .NET version does PRTG require?





- <https://kb.paessler.com/en/topic/60543>

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Sensor Settings Overview

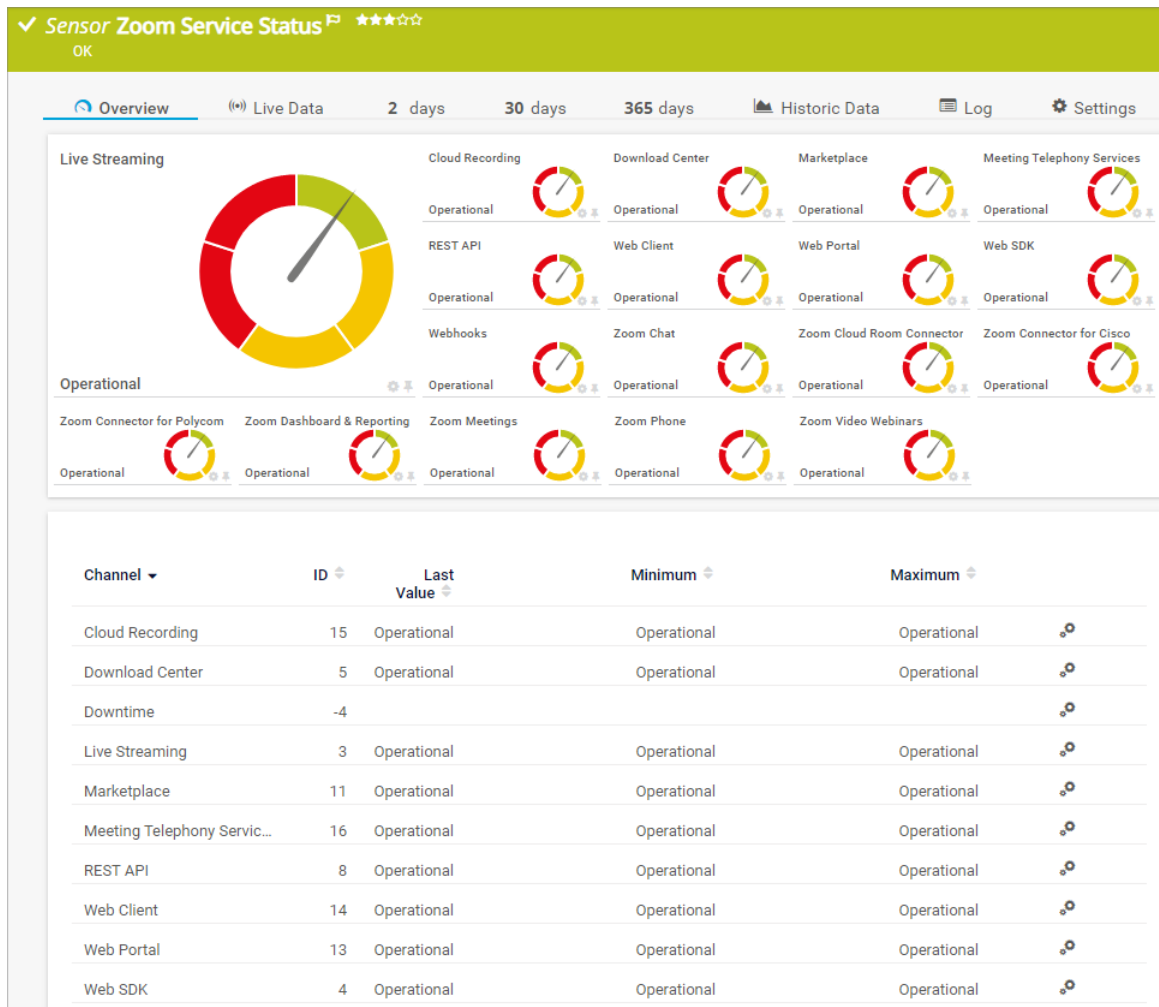
For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3957

7.8.280 Zoom Service Status Sensor

The Zoom Service Status sensor monitors the global status of all Zoom services.

For a detailed list and descriptions of the channels that this sensor can show, see section [Channel List](#).



Zoom Service Status Sensor

Sensor in Other Languages

- Dutch: Zoom Service Status
- French: Zoom Service Status
- German: Zoom Service Status
- Japanese: Zoom Service Status
- Portuguese: Zoom Service Status
- Russian: Zoom Service Status
- Simplified Chinese: Zoom Service Status
- Spanish: Zoom Service Status

Remarks

- This sensor only supports the global status of Zoom services.
- This sensor supports the IPv6 protocol.
- This sensor has a very low performance impact.
- This sensor uses lookups to determine the status values of one or more channels. This means that possible states are defined in a lookup file. You can change the behavior of a channel by editing the lookup file that the channel uses. For details, see section [Define Lookups](#).

Add Sensor

The [Add Sensor](#) dialog appears when you manually add a new sensor to a device. It only shows the settings that are required to create the sensor. Therefore, you do not see all settings in this dialog. You can change nearly all settings on the sensor's Settings tab after creation.

Basic Sensor Settings

Click the Settings tab of a sensor to change its settings.

The screenshot shows a 'Basic Sensor Settings' dialog box. It has three main sections:

- Sensor Name:** A text input field containing 'Example Name'.
- Tags:** A list of tags with 'exampletag' selected. There are 'X' and '+' icons for tag management.
- Priority:** A star rating system showing 5 stars.

Basic Sensor Settings

Setting	Description
Sensor Name	<p>Enter a meaningful name to identify the sensor. By default, PRTG shows this name in the device tree, as well as in alarms, logs, notifications, reports, maps, libraries, and tickets.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Parent Tags	<p>Shows tags that the sensor inherits from its parent device, parent group, and parent probe.</p> <p>i This setting is for your information only. You cannot change it.</p>

Setting	Description
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>The sensor has the following default tags that are automatically predefined in the sensor's settings when you add the sensor:</p> <ul style="list-style-type: none"> ▪ zoom ▪ zoomsensor
Priority	<p>Select a priority for the sensor. This setting determines the position of the sensor in lists. The highest priority is at the top of a list. Choose from the lowest priority (☆☆☆☆☆) to the highest priority (★★★★★).</p>


Sensor Display


Sensor Display

Primary Channel ⓘ Downtime

Graph Type ⓘ Show channels independently (default)
 Stack channels on top of each other

Sensor Display

Setting	Description
Primary Channel	<p>Select a channel from the list to define it as the primary channel. In the device tree, the last value of the primary channel is always displayed below the sensor's name. The available options depend on what channels are available for this sensor.</p> <p>i You can set a different primary channel later by clicking  below a channel gauge on the sensor's Overview tab.</p>
Graph Type	<p>Define how different channels are shown for this sensor:</p> <ul style="list-style-type: none"> ▪ Show channels independently (default): Show a graph for each channel.


Setting	Description
	<ul style="list-style-type: none"> Stack channels on top of each other: Stack channels on top of each other to create a multi-channel graph. This generates a graph that visualizes the different components of your total traffic. <ul style="list-style-type: none">  You cannot use this option in combination with manual Vertical Axis Scaling (available in the channel settings^[3977]).
Stack Unit	This setting is only visible if you enable Stack channels on top of each other as Graph Type. Select a unit from the list. All channels with this unit are stacked on top of each other. By default, you cannot exclude single channels from stacking if they use the selected unit. However, there is an advanced procedure to do so.

Debug Options


Debug Options Result Handling 

Discard result
 Store result

Debug Options

Setting	Description
Result Handling	<p>Define what PRTG does with the sensor result:</p> <ul style="list-style-type: none"> Discard result: Do not store the sensor result. Store result: Store the last sensor result in the \Logs\sensors subfolder of the PRTG data directory^[4526] on the probe system. The file name is Result of Sensor [ID].log. This setting is for debugging purposes. PRTG overwrites this file with each scanning interval. <p> This option is not available when the sensor runs on the hosted probe of a PRTG Hosted Monitor instance.</p>

Inherited Settings

By default, all of the following settings are inherited from objects that are higher in the hierarchy. We recommend that you change them centrally in the [root group settings](#)^[366] if necessary. To change a setting for this object only, click  under the corresponding setting name to disable the inheritance and to display its options.


 For more information, see section [Inheritance of Settings](#)^[142].

Scanning Interval

Click  to interrupt the [inheritance](#) ¹⁴².


Scanning Interval

Scanning Interval ⓘ 60 seconds

inherit from  Root

If a Sensor Query Fails ⓘ Set sensor to warning for 1 interval, then set to down (recommended)

Scanning Interval

Setting	Description
Scanning Interval	<p>Select a scanning interval from the dropdown list. The scanning interval determines the amount of time that the sensor waits between two scans. Choose from:</p> <ul style="list-style-type: none"> ▪ 30 seconds ▪ 60 seconds ▪ 5 minutes ▪ 10 minutes ▪ 15 minutes ▪ 30 minutes ▪ 1 hour ▪ 4 hours ▪ 6 hours ▪ 12 hours ▪ 24 hours <p> You can change the available intervals in the system administration ⁴¹⁸⁷ on PRTG on premises installations.</p>
If a Sensor Query Fails	<p>Select the number of scanning intervals that the sensor has time to reach and to check a device again if a sensor query fails. Depending on the option that you select, the sensor can try to reach and to check a device again several times before the sensor shows the Down status ¹⁹⁷. This can avoid false alarms if the monitored device only has temporary issues. For previous scanning intervals with failed requests, the sensor shows the Warning status. Choose from:</p> <ul style="list-style-type: none"> ▪ Set sensor to down immediately: Set the sensor to the Down status immediately after the first request fails. ▪ Set sensor to warning for 1 interval, then set to down (recommended): Set the sensor to the Warning status after the first request fails. If the second request also fails, the sensor shows the Down status. ▪ Set sensor to warning for 2 intervals, then set to down: Set the sensor to the Down status only after the third request fails.

Setting	Description
	<ul style="list-style-type: none"> ▪ Set sensor to warning for 3 intervals, then set to down: Set the sensor to the Down status only after the fourth request fails. ▪ Set sensor to warning for 4 intervals, then set to down: Set the sensor to the Down status only after the fifth request fails. ▪ Set sensor to warning for 5 intervals, then set to down: Set the sensor to the Down status only after the sixth request fails. <p>i Sensors that monitor via Windows Management Instrumentation (WMI) always wait at least one scanning interval before they show the Down status. It is not possible to immediately set a WMI sensor to the Down status, so the first option does not apply to these sensors. All other options can apply.</p> <p>i If you define error limits for a sensor's channels, the sensor immediately shows the Down status. None of the interval options apply.</p> <p>i If a channel uses lookup values, the sensor immediately shows the Down status. None of the interval options apply.</p>

Schedules, Dependencies, and Maintenance Windows

i You cannot interrupt the inheritance for schedules, dependencies, and maintenance windows. The corresponding settings from the parent objects are always active. However, you can define additional schedules, dependencies, and maintenance windows. They are active at the same time as the parent objects' settings.

Schedules, Dependencies, and Maintenance Windows

Dependencies, schedules, and maintenance windows always pause all sensors inside a group or device. This pausing is always inherited to all subobjects and the inheritance cannot be disabled. Below you can set additional schedules, maintenance windows, or dependencies that will be used in parallel to any inherited setting.

inherit from Root

Schedule **i** None




Maintenance Window **i** Do not set up a one-time maintenance window
 Set up a one-time maintenance window

Dependency Type **i** Use parent
 Select a sensor
 Master sensor for parent

Schedules, Dependencies, and Maintenance Windows

Setting	Description
Schedule	<p>Select a schedule from the list. You can use schedules to monitor during a certain time span (days or hours) every week. Choose from:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays


Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i You can create schedules, edit schedules, or pause monitoring for a specific time span. For more information, see section Schedules <small>4170</small>.</p>
Maintenance Window	<p>Select if you want to set up a one-time maintenance window. During a maintenance window, monitoring stops for the selected object and all child objects. They show the Paused status instead. Choose between:</p> <ul style="list-style-type: none"> ▪ Do not set up a one-time maintenance window: Do not set up a one-time maintenance window. Monitoring is always active. ▪ Set up a one-time maintenance window: Set up a one-time maintenance window and pause monitoring. You can define a time span for the pause below. <p>i To terminate an active maintenance window before the defined end date, change the time entry in Maintenance Ends to a date in the past.</p>
Maintenance Begins	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the start date and time of the one-time maintenance window.</p>
Maintenance Ends	<p>This setting is only visible if you enable Set up a one-time maintenance window above. Use the date time picker to enter the end date and time of the one-time maintenance window.</p>
Dependency Type	<p>Select a dependency type. You can use dependencies to pause monitoring for an object depending on the status of a different object. You can choose from:</p> <ul style="list-style-type: none"> ▪ Use parent: Use the dependency type of the parent object. ▪ Select a sensor: Use the dependency type of the parent object. Additionally, pause the current object if a specific sensor is in the Down status or in the Paused status because of another dependency. ▪ Master sensor for parent: Make this sensor the master object for its parent device. The sensor influences the behavior of its parent device: If the sensor is in the Down status, the device is paused. For example, it is a good idea to make a Ping sensor the master object for its parent device to pause monitoring for all other sensors on the device in case the device cannot even be pinged. Additionally, the sensor is paused if the parent group is paused by another dependency.


Setting	Description
	<p> To test your dependencies ^[4025], select Simulate Error Status from the context menu of an object that other objects depend on. A few seconds later, all dependent objects are paused. You can check all dependencies under Devices | Dependencies in the main menu bar.</p>
Dependency	<p>This setting is only visible if you enable Select a sensor above. Click  and use the object selector ^[251] to select a sensor on which the current object will depend.</p>
Dependency Delay (Sec.)	<p>This setting is only visible if you enable Select a sensor above. Define a time span in seconds for the dependency delay.</p> <p>After the master sensor for this dependency returns to the Up status, PRTG additionally delays the monitoring of the dependent objects by the time span you define. This can prevent false alarms, for example, after a server restart or to give systems more time for all services to start. Enter an integer value.</p> <p> This setting is not available if you set this sensor to Use parent or to be the Master sensor for parent. In this case, define delays in the parent device settings ^[446] or in its parent group settings ^[413].</p>

Access Rights

Click  to interrupt the [inheritance](#) ^[142].

Access Rights

inherit from  Root

User Group Access 

User Group	Rights
PRTG Users Group	Full access
RO User Group	Inherited (No access)


Revert children's access rights to inherited

Access Rights



Setting	Description
User Group Access	<p>Define the user groups ⁴²¹⁹ that have access to the sensor. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ Inherited: Inherit the access rights settings of the parent object. ▪ No access: Users in this user group cannot see or edit the sensor. The sensor neither shows up in lists nor in the device tree. ▪ Read access: Users in this group can see the sensor and view its monitoring results. They cannot edit any settings. ▪ Write access: Users in this group can see the sensor, view its monitoring results, and edit its settings. They cannot edit its access rights settings. ▪ Full access: Users in this group can see the sensor, view its monitoring results, edit its settings, and edit its access rights settings. <p>■ For more details on access rights, see section Access Rights Management ¹⁵⁵.</p>


Channel Unit Configuration








Click  to interrupt the [inheritance](#) ¹⁴².

 Which channel units are available depends on the sensor type and the available parameters. If no configurable channels are available, this field shows [No configurable channels](#).


Channel Unit Configuration

 inherit from  Root


Channel Unit Types 

Channel Type	Unit
Bytes (Bandwidth)	KB 
	kbit 
	/ 
	sec... 
Bytes (Memory)	MB 
Bytes (Disk)	MB 
Bytes (File)	Byte 

Channel Unit Configuration

Setting	Description
Channel Unit Types	<p>For each type of channel, select the unit in which PRTG displays the data. If you define this setting on probe, group, or device level, you can inherit these settings to all sensors underneath. You can set units for the following channel types (if available):</p> <ul style="list-style-type: none"> ▪ Bandwidth ▪ Memory ▪ Disk ▪ File ▪ Custom <p> Custom channel types are only available on sensor level.</p>

Channel List

 Which channels the sensor actually shows might depend on the monitored device, the available components, and the sensor setup.

Channel	Description
Cloud Recording	<p>The status of Cloud Recording</p> <ul style="list-style-type: none"> ▪ Up status¹⁹⁷: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage
Downloading Center	<p>The status of Downloading Center</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage
Downtime	<p>In the channel table on the Overview tab, this channel never shows any values. PRTG uses this channel in graphs and reports to show the amount of time in which the sensor was in the Down status in percent.</p>
Live Streaming	<p>The status of Live Streaming</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage

Channel	Description
Marketplace	<p>The status of Marketplace</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage
Meeting Telephony Services	<p>The status of Meeting Telephony Services</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage
REST API	<p>The status of REST API</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage
Web Client	<p>The status of Web Client</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage
Web Portal	<p>The status of Web Portal</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage
Web SDK	<p>The status of Web SDK</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage
Webhooks	<p>The status of Webhooks</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage

Channel	Description
Zoom Chat	<p>The status of Zoom Chat</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage
Zoom Cloud Room Connector	<p>The status of Zoom Cloud Room Connector</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage
Zoom Connector for Cisco	<p>The status of Zoom Connector for Cisco</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage
Zoom Connector for Polycom	<p>The status of Zoom Connector for Polycom</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage
Zoom Dashboard & Reporting	<p>The status of Zoom Dashboard & Reporting</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage
Zoom Meetings	<p>The status of Zoom Meetings</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage <p>i This channel is the primary channel by default.</p>
Zoom Phone	<p>The status of Zoom Phone</p> <ul style="list-style-type: none"> ▪ Up status: Operational ▪ Warning status: Degraded Performance, Under Maintenance ▪ Down status: Major Outage, Partial Outage

Channel	Description
Zoom Video Webinars	The status of Zoom Video Webinars <ul style="list-style-type: none">▪ Up status: Operational▪ Warning status: Degraded Performance, Under Maintenance▪ Down status: Major Outage, Partial Outage

More





■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>


Sensor Settings Overview

For more information about sensor settings, see the following sections:

- [List of Available Sensor Types](#)  4581
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.9 Additional Sensor Types (Custom Sensors)

You can create and use your own custom sensors in PRTG to extend the standard sensor set. You can create your own sensors by using Windows Management Instrumentation Query Language (WQL), visual basic scripting, PowerShell, batch scripting, Structured Query Language (SQL) queries, by compiling an .exe or .dll file, by running Python scripts, or by translating JavaScript Object Notation (JSON) and Extensible Markup Language (XML) responses of a Representational State Transfer (REST) application programming interface (API) into sensor values.

 You cannot use custom sensors on hosted probes in PRTG Hosted Monitor (except SSH sensors). If you want to use custom sensors, add them to a remote probe device.

Basics

For a general introduction, see the sections about EXE/Script sensors and section [Custom Sensors](#)⁴⁴³⁷, which contains details about the necessary return format for these sensors. WMI Custom sensors allow you to execute WQL requests.

- [EXE/Script sensor](#)¹⁰⁶³
- [EXE/Script Advanced sensor](#)¹⁰⁷⁷
- [Python Script Advanced sensor](#)²⁰⁹²
- [REST Custom sensor](#)²¹⁵¹
- [SSH Script sensor](#)³²⁷³
- [SSH Script Advanced sensor](#)³²⁸⁸
- [WMI Custom sensor](#)³⁵⁹⁶
- [WMI Custom String sensor](#)³⁶⁰⁸

Additionally, some types of SQL sensors execute script files with SQL queries:

- [Microsoft SQL v2 sensor](#)¹⁶⁰⁷
- [MySQL v2 sensor](#)¹⁶⁷⁴
- [Oracle SQL v2 sensor](#)¹⁹²³
- [PostgreSQL sensor](#)²⁰⁶⁴

The [HL7 sensor](#)¹¹⁸⁰ sends messages that are stored in extra files on the probe system.

Custom Sensors in PRTG

After you install PRTG, you can find a selection of custom EXE/Script, Python, and WMI WQL script sensors in the [PRTG program directory](#)⁴⁵²⁶, as well as scripts with SQL queries for specific database sensors, REST configuration files in the JSON template (*.template) format for the REST Custom sensor, and Health Level 7 (HL7) message files for the HL7 sensor. Many of the files are sample projects that you can edit and improve for your needs.

Subfolder of the PRTG Custom Sensors
Program Directory

\\Custom Sensors\\EXE

The following custom sensors are available by default:

- Demo Batchfile - Returns 200.bat
- Demo Batchfile - Set sensorstate to error.bat
- Demo Batchfile - Set sensorstate to warning.bat
- Demo Cmd - Returns 200.cmd
- Demo Dll - Returns a random integer.dll
- Demo EXE - Returns a random integer.exe
- Demo EXE - Returns number of files in folder (parameter).exe
- Demo EXE - Returns user of process.exe
- Demo Powershell Script - Available MB via WMI.ps1
- Demo Powershell Script - InterruptsPerSec via WMI.ps1
- Demo Powershell Script - Powershell Version.ps1
- Demo Powershell Script - Returns a fixed integer value.ps1
- Demo Powershell Script - Returns a random integer value.ps1
- Demo Powershell Script - Returns Random Integer and Warnings.ps1
- Demo VBScript - InterruptsPerSec via WMI.vbs
- Demo VBScript - Multiplies two integers(2 parameters).vbs
- Demo VBScript - Returns a fixed float value.vbs
- Demo VBScript - Returns a fixed integer value.vbs
- Demo VBScript - Returns a random value.vbs
- Demo VBScript - Returns number of svchost processes.vbs
- Demo VBScript - Returns user of process.vbs
- Demo VBScript - Returns warning depending on number of svchost processes.vbs
- Demo VBScript - Timezone via WMI.vbs
- Demo VBScript - UTCTime via WMI.vbs
- Load_Test_CPU_1_Mio_Primes.exe
- Load_Test_CPU_10_Mio_Primes.exe
- Load_Test_Disk_Write_Read_1000_files.exe
- Load_Test_Disk_Write_Read_10000_files.exe
- Load_Test_Memory_Allocate_And_Free_400MB.exe

Subfolder of the PRTG Custom Sensors Program Directory

To create a new sensor based on one of these files, create a new EXE/Script sensor and choose the respective file from the EXE/Script list in the sensor settings.

i We recommend that you not edit the demo files. Create your own new files and make sure to give them unique names that do not start with **Demo**, for example.

\Custom Sensors\EXEXML

The following custom sensor is available by default:

- Demo Batchfile - Returns static values in four channels.bat

To create a new sensor based on one of these files, create a new EXE/Script Advanced sensor and choose the respective file from the EXE/Script list in the sensor settings.

\Custom Sensors\hl7

The following custom sensors are available by default:

- ADT_A08.hl7
- ORM_O01.hl7

Each file contains an HL7 message that is conform to the HL7 message format. To create a new sensor based on one of these files, create a new HL7 sensor and choose the respective file from the HL7 Messages list in the sensor settings. You can override certain message headers in the files via the sensor settings.

\Custom Sensors\python

The following custom sensor is available by default:

- sensor_example.py

This Python example script only returns fixed values in two channels to demonstrate the usage. To create a new sensor based on this file, create a new Python Script Advanced sensor and choose the file from the Python Script list in the sensor settings.

\Custom Sensors\rest

The following custom sensors are available by default:

- kemp.loadbalancer.template: maps values returned by the RESTful API of a KEMP load balancer to channels, for example, CPU usage, memory usage, traffic
- prtg-sensor-stats.template: maps values returned by the PRTG API to channels that show the count of each sensor status on the local probe
- windows.docker.container.stats.template: maps values returned by the Docker Engine API to channels, for example, CPU usage, memory usage, traffic, input/output (I/O)
- underground.template: maps values returned by the Weather Underground API to channels, for example, temperature, dew point, pressure, wind speed, wind direction

Subfolder of the PRTG Program Directory Custom Sensors

To create a new sensor based on one of these files, create a new REST Custom sensor on the device that provides the REST API and choose the file from the REST Configuration File list in the sensor settings.

\Custom Sensors\sql\[dbms]

The following custom sensor is available by default:

- Demo Serveruptime.sql

You can find this demo SQL query script in each subfolder for each supported [database management system \(dbms\)](#): \adosql, \mssql, \mysql, \oracle, \postgresql

To create a new sensor that uses one of the scripts in the dbms folders, create the according sensor ([see above for supported sensors](#)) and choose the respective file from the SQL Query File list in the sensor settings.

\Custom Sensors\WMI WQL scripts

The following custom sensors are available by default:

- Demo WQL Script - Get Win32LogicalDiscFreeMB.wql
- Demo WQL Script - Get Win32OsBuildnumber.wql
- Demo WQL Script - Get Win32PercentProcessorIdleTime.wql
- Demo WQL Script - Get Win32PercentProcessorTime.wql

To create a new sensor based on one of these files, create a new WMI Custom sensor and choose the respective file from the WQL File list in the sensor settings.

Download Custom Sensors

Good resources to find custom sensors that other users and we from Paessler share are the [PRTG Sensor Hub](#) and our Knowledge Base. In the Knowledge Base, search for the tag custom-script-exe to find a lot of custom sensors.

More

KNOWLEDGE BASE

Guide for PowerShell-based custom sensors

- <https://kb.paessler.com/en/topic/71356>

Custom sensors

- <https://kb.paessler.com/en/tags/custom-script-exe>

How can I share my self-written PRTG script/program with other PRTG users?

- <https://kb.paessler.com/en/topic/63737>

How can I test if parameters are correctly transmitted to my script when using an EXE/Script sensor?

- <https://kb.paessler.com/en/topic/11283>

Why do I have to store SQL sensor queries and custom scripts in files on the probe computer?












- <https://kb.paessler.com/en/topic/75372>

■ PAESSLER WEBSITE

You can find useful scripts for sensors in the PRTG Sensor Hub



- <https://www.paessler.com/sensor-hub>

Device and Sensor Setup


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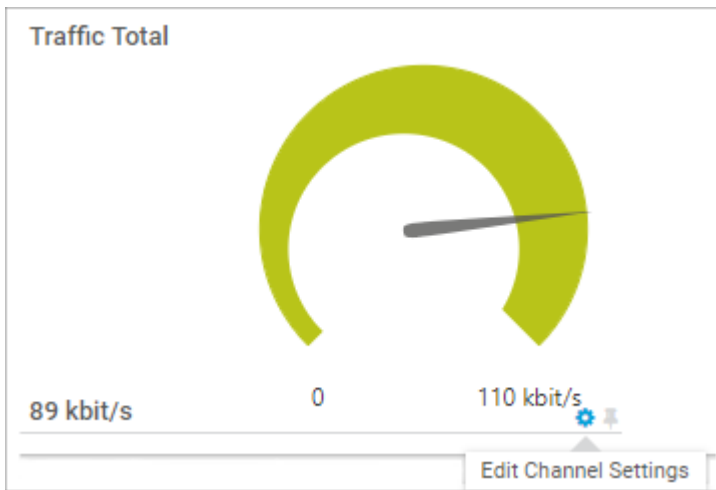
7.10 Channel Settings

A sensor has one or more channels in which it handles the actual monitoring data. In the channel settings, you can define how to display the data from the sensor's different channels displayed in graphs, gauges, and tables. Additionally, the channel data can determine the [sensor status](#)^[197]. Use the limit settings to define desired sensor states for values.

On the sensor's Overview tab, click  below a gauge to change the channel's settings. Click  below a gauge to make this channel the primary channel of the selected sensor.

You can also open the settings of a channel by clicking  in the channels data table.

 For [lookup](#)^[4485] channels, we recommend that you stay below 120 lookup values to get expressive gauges. For non-primary lookup channels, the upper limit is around 40 lookup values.



The Gear Icon of an SNMP Traffic Total Channel to Open Channel Settings

The available options are nearly the same for all sensors. An exception applies to the Downtime channel, which PRTG automatically calculates and which does not offer all settings. Channels with [absolute](#) values additionally have an option to define the Value Mode. Custom channels have a Lookups and Limits setting to distinguish between alerting by lookups or numeric limits.

You can choose a different channel via the dropdown list at the top of the channel settings list.

Edit Channel
✕

Free Space (ID 0)
▼

Edit Channel "Free Space"

Name ⓘ

ID ⓘ

Limits ⓘ

Disable limits
 Enable alerting based on limits

Graph Rendering ⓘ

Show in graphs
 Hide from graphs

Table Rendering ⓘ

Show in tables
 Hide from tables

Line Color ⓘ

Automatic
 Manual

Line Width ⓘ

Value Mode ⓘ

Average
 Minimum
 Maximum

Decimal Places ⓘ

Apply
OK
Cancel

Channel Settings for a Disk Sensor

Edit Channel


Setting	Description
Name	<p>Enter a meaningful name to identify the channel. The name appears in graphs and tables.</p> <ul style="list-style-type: none"> ⓘ You can automatically add the sensor's ID to the name by using the placeholder [#id]. ⓘ You cannot edit the name for script sensors after sensor creation.

Setting	Description
Unit	<p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p> <p>This setting is only visible for custom sensors.</p> <p>Enter the unit for the values that this sensor returns. Enter a string. PRTG uses the unit string for display purposes and shows it in graphs, data tables, and gauges.</p> <p>i If you want to change the unit after sensor creation, you can change it in the sensor's channel settings³⁹⁷⁷.</p>
Scaling Multiplication	<p>This setting is only visible for channels with a custom unit. If you want to multiply the received raw data by a certain value, enter the multiplier here. Otherwise, use the default value 1 to not change the received value. Enter an integer value.</p> <p>For example, the following sensors provide the scaling factor for received values with custom units in their settings.</p> <ul style="list-style-type: none"> ▪ Sensor Factory sensor²¹⁸⁰ (you can use multiplication and division in the channel definition) ▪ SNMP APC Hardware sensor²³⁰⁸ ▪ SNMP Custom sensor²⁴⁵⁴ ▪ SNMP Dell Hardware sensor²⁵⁵² ▪ WMI Custom sensor <p>i If the channel uses lookups, the scaling factor does not modify the values that are defined in the lookups. Any applied lookup always uses the raw value as it is retrieved from the target device. If you use a scaling factor for such a channel, you notice the scaling in data graphs, but the channel value appears unmodified in data tables.</p>
Scaling Division	<p>This setting is only visible for channels with a custom unit. If you want to divide the received raw data by a certain value, enter the divisor here. Otherwise, use the default value 1 to not change the received value. Enter an integer value.</p> <p>For example, the following sensors provide the scaling factor for received values with custom units in their settings.</p> <ul style="list-style-type: none"> ▪ Sensor Factory sensor (you can use multiplication and division in the channel definition) ▪ SNMP APC Hardware sensor ▪ SNMP Custom sensor ▪ SNMP Dell Hardware sensor ▪ WMI Custom sensor

Setting	Description
ID	<p>i If the channel uses lookups, the scaling factor does not modify the values that are defined in the lookups. Any applied lookup always uses the raw value as it is retrieved from the target device. If you use a scaling factor for such a channel, you notice the scaling in data graphs, but the channel value appears unmodified in data tables.</p> <p>Shows the ID of the channel. You cannot change the ID. PRTG uses it for unique identification. For example, you need the ID for Sensor Factory sensors.</p> <p>There are a few special, fixed channel IDs.</p> <ul style="list-style-type: none"> ▪ -1 is for sum channels of traffic sensors (for example, of the SNMP Traffic sensor³⁰⁹⁴). ▪ -4 is for the Downtime channel (you can use it, for example, for an uptime percentage calculation in a Sensor Factory sensor). ▪ -2 (coverage) and -3 (error) are internally used.
Limits	<p>i This setting is not available for custom channels.</p> <p>Define if you want to set limits for this channel. The channel can affect the status of the sensor¹⁹⁷ that it is a part of. By setting limits, you can define when the sensor shows the Warning status or the Down status, depending on the channel data. For example, you can use this function to set a traffic sensor (that is usually never in the Down status) to show the Down status when the monitored values reach critical limits.</p> <p>Choose between:</p> <ul style="list-style-type: none"> ▪ Disable limits: Do not use the channel data to define the sensor status. ▪ Enable alerting based on limits: Define limits for the numeric values that are returned by the device. The sensor of which this channel is a part of shows the Warning status or the Down status when limits fall below the defined value or when limits are exceeded. <p>i The Limits option is not available for the Downtime channel.</p> <p>i You can show limits in graphs (highlighted in yellow or red) if you select exactly one channel with a limit in a graph.</p>
Lookups and Limits	<p>i This setting is only available for custom channels.</p> <p>Define when the sensor shows the Down status and alerts you, either based on the lookup definition or based on limits for returned values. Only the option that you select applies. For example, if you select limits as the alerting method, an error status that is defined in the lookups does not show up.</p> <p>Choose between:</p>

Setting	Description
Lookup	<ul style="list-style-type: none"> ▪ Enable alerting based on lookups: Use the lookup definition of the channel to define the sensor status. Make sure that the channel uses a proper Lookup if you use this option. Select the lookup file either in the channel settings or in the sensor settings, depending on the sensor. If you do not want to use the channel data to define the sensor status, select None as Lookup. ▪ Enable alerting based on limits: Define limits for numeric values returned by the device. The sensor of which this channel is a part of shows the Warning status or the Down status when limits fall below the defined value or when limits are exceeded. <p>i If you choose limit-based alerting, errors and warnings that you have defined in the lookup file do not apply.</p> <p>This setting is only visible for custom sensors and if you select lookups-based alerting. Select the lookup file that you want to use with this channel.</p> <p>i Do not use this option for sensors that provide the unit Lookup in the sensor settings. The channel setting is overwritten with the next sensor scan. Define the lookup file that you want to use with this channel on the Settings tab of the sensor. Select the option Lookup for the setting Channel #x Unit (where x is the number of the channel) and define the desired lookup file under Channel #x Lookup. See section Define Lookups^[4485] for affected sensors.</p> <p>i If you choose None, alerting by lookups and limits is disabled and channels do not appear as lookups. If you want to keep the lookup representation without alerting, define the states accordingly in the lookup file.</p>
Upper Error Limit ([unit])	<p>This setting is only visible if you select Enable alerting based on limits above. Specify an upper limit for the Down status. If the channel values exceed this value, the sensor shows the Down status. Enter a valid number into at least one of the limit fields.</p> <p>i The value that you enter here must match the type of value that the device returns, either an integer or a float. See also Absolute Values and Delta Values for Limits^[4039].</p> <p>i While a sensor shows the Down status because of a limit, it still receives data in its channels.</p>
Upper Warning Limit ([unit])	<p>This setting is only visible if you select Enable alerting based on limits above. Specify an upper limit for the Warning status. If the channel values exceed this value, the sensor shows the Warning status. Enter a valid number into at least one of the limit fields.</p> <p>i The value that you enter here must match the type of value that the device returns, either an integer or a float. See also Absolute Values and Delta Values for Limits^[4039].</p>

Setting	Description
Lower Warning Limit ([unit])	<p>This setting is only visible if you select Enable alerting based on limits above. Specify a lower limit for the Warning status. If the channel values fall below this value, the sensor shows the Warning status. Enter a valid number into at least one of the limit fields.</p> <p>i The value that you enter here must match the type of value that the device returns, either an integer or a float. See also Absolute Values and Delta Values for Limits ⁴⁰³⁹.</p>
Lower Error Limit ([unit])	<p>This setting is only visible if you select Enable alerting based on limits above. Specify a lower limit for the Down status. If the channel values fall below this value, the sensor shows the Down status. Enter a valid number into at least one of the limit fields.</p> <p>i The value that you enter here must match the type of value that the device returns, either an integer or a float. See also Absolute Values and Delta Values for Limits ⁴⁰³⁹.</p> <p>i While a sensor shows the Down status because of a limit, it still receives data in its channels.</p>
Error Limit Message	<p>This setting is only visible if you select Enable alerting based on limits above. Enter an additional message. PRTG adds it to the sensor message when the sensor shows the Down status. Enter a string or leave the field empty.</p>
Warning Limit Message	<p>This setting is only visible if you select Enable alerting based on limits above. Enter an additional message. PRTG adds it to the sensor message when the sensor shows the Warning status. Enter a string or leave the field empty.</p>
Graph Rendering	<p>Select if you want to show this channel in data graphs ²⁰⁵:</p> <ul style="list-style-type: none"> ▪ Show in graphs: Sensor graphs contain the data of this channel. ▪ Hide from graphs: Sensor graphs do not contain data of this channel. <p>i If you choose to hide this channel in graphs, it also does not appear in the graphs of reports ⁴⁰⁶⁹ or maps ⁴⁰⁹⁵.</p>
Table Rendering	<p>Select if you want to show this channel in data tables ²⁰¹:</p> <ul style="list-style-type: none"> ▪ Show in tables: Sensor data tables contain the data of this channel. ▪ Hide from tables: Sensor data tables do not contain the data of this channel. This option hides the gauge as well, but the channel is still available in the data table of the sensor's Overview tab. <p>i If you choose to hide this channel in data tables, PRTG also does not use it for the calculation of the Total channel of a sensor. It also does not appear in data tables of a report.</p>

Setting	Description
Line Color	<p>Select the color of the channel display in graphs:</p> <ul style="list-style-type: none"> ▪ Automatic: PRTG automatically sets the color of this channel in graphs. ▪ Manual: Individually define the color of this channel. You can enter the desired color code below.
Color (#rrggbb)	<p>This setting is only visible if you select Manual above. Enter a color in hexadecimal notation as in .html and .css files, or choose a color from the visual color selector. The field with the hexadecimal color value automatically changes to the color you select.</p>
Line Width	<p>Enter the width of the channel line in graphs. Enter an integer value in pixels. The maximum line width is 25, but we recommend that you only use values between 1 and 7 to get optimal results.</p>
Data	<p>This setting is available for most channels. Define how to display data:</p> <ul style="list-style-type: none"> ▪ Display actual values in [unit]: Display the values in the shown unit. ▪ Display in percent of maximum: Calculate and show percent values based on a maximum value. Enter a maximum below. <ul style="list-style-type: none"> ❗ If you choose this option, you cannot display the data of traffic sensors as a positive and negative area graph. ❗ If you choose this option, values in the Limits section are counted as percent values.
Maximum ([unit])	<p>This setting is only visible if you select Display in percent of maximum above. Enter a value to use as the maximum. Consider the unit. PRTG calculates all percent values based on this value. Enter an integer value.</p>
Value Mode	<p>This setting is only available for channels that return absolute values. It is not available for sensors that show difference values, such as traffic channels. Depending on this setting, the channel can not only show averages, but also the minimum or the maximum values in the graphs for the respective time spans.</p> <p>Choose from:</p> <ul style="list-style-type: none"> ▪ Average: The channel shows average values. ▪ Minimum: The channel shows the minimum values. ▪ Maximum: The channel shows the maximum values. <p> For more information about value modes, see the Knowledge Base: What is the Value Mode in channel settings?</p>
Decimal Places	<p>Define how many decimal places of the channel's data that you want to display in graphs and tables:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ Automatic: PRTG automatically defines how many decimal places to use for optimal viewing results. <ul style="list-style-type: none"> ⓘ PRTG rounds values between 10 and –10 to two decimal places. It rounds values that are very close to an integer to the integer, for example, it rounds 3.001 to 3. ▪ All: Display all available decimal places. ▪ Custom: Manually define the number of decimal places. If you choose this option, an additional field appears. Enter an integer value.
Spike Filter	<p>You can use a spike filter to correct faulty monitoring data. Sometimes, sensors report values that are enormously high or far too low. This can be because of an error in data transmission, or because of incompatibilities of the physical device you are monitoring. This can make graphs unreadable. A spike filter can compensate for these flaws.</p> <p>If you enable a spike filter, PRTG disregards values that are above and below a certain limit in the monitoring data for graphs and tables.</p> <p>Choose between:</p> <ul style="list-style-type: none"> ▪ Disable filtering: Display all data as it is received. Do not filter out spikes. ▪ Enable filtering: Enable a filter to remove spike values. Additional fields appear below. <ul style="list-style-type: none"> ⓘ This does not change monitoring data itself but only the presentation of the data. This setting is valid for all data of this channel, including historic data. ⓘ Use the spike filter with care. For overflow values in SNMP sensors, check the SNMP Compatibility Options³⁷⁸ before. ⓘ The spike filter option is not available for the channel Downtime.
Spike Filter Max. Value ([unit])	<p>This setting is only visible if you select Enable filtering above. Enter the maximum value to show in the channel data. PRTG disregards all data above this value in graphs and tables. Enter an integer value or leave the field empty.</p>
Spike Filter Min. Value ([unit])	<p>This setting is only visible if you select Enable filtering above. Enter the minimum value to show in the channel data. PRTG disregards all data below this value in graphs and tables. Enter an integer value or leave the field empty.</p>
Vertical Axis Scaling	<p>Define how to display the vertical axis for the channel in graphs:</p> <ul style="list-style-type: none"> ▪ Automatic scaling: PRTG automatically uses the optimum scaling. Usually the scaling ranges from the minimum to the maximum value. PRTG uses one single scale for each unit label only.

Setting	Description
	<ul style="list-style-type: none"> Manual scaling: Manually define the scaling. Additional fields appear below. If you define manual axis scaling, it can make low values better visible in your graph, but it might result in a graph with multiple vertical axes for the same unit label. <p>i PRTG ignores settings for this option if you select Stack channels on top of each other under Graph Type on the sensor's Settings tab.</p>
Vertical Axis Maximum ([unit])	This setting is only visible if you select Manual scaling above. Enter the maximum value to use on the vertical axis for the channel. Enter an integer value.
Vertical Axis Minimum ([unit])	This setting is only visible if you select Manual scaling above. Enter the minimum value to use on the vertical axis for the channel. Enter an integer value.

i Click OK to save your settings and to close the settings window. Click Apply to save the changed settings while the Edit Channel window remains open, for example if you want to change the settings of other channels of the current sensor as well. You can select a different channel via the dropdown list above the settings. You can close the settings window without saving by clicking Cancel.

i If you change any settings and either click Cancel or select a different channel via the dropdown list, PRTG asks you to confirm this step. Click Save to apply the changes or click Discard Changes to ignore the changes. PRTG closes the window or shows the settings of the selected channel respectively.

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>




What is the Value Mode in channel settings?

- <https://kb.paessler.com/en/topic/60238>

Device and Sensor Setup

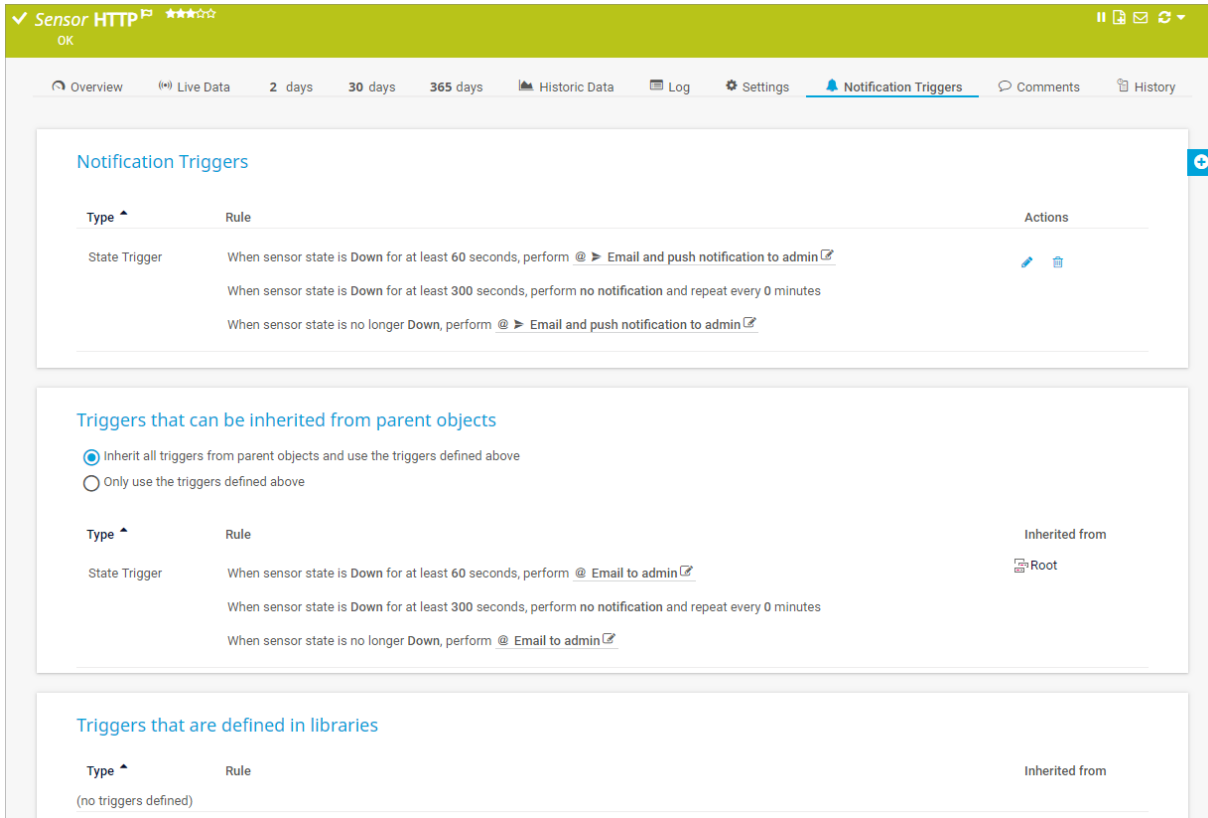
- [Auto-Discovery](#) ²⁹⁶
- [Create Objects Manually](#) ²⁹⁹
- [Manage Device Tree](#) ³⁶⁴
- [Root Group Settings](#) ³⁶⁶
- [Probe Settings](#) ³⁸⁵
- [Group Settings](#) ⁴¹³
- [Device Settings](#) ⁴⁴⁶
- [Sensor Settings](#) ⁴⁷⁶

Part 7: Device and Sensor Setup | 10 Channel Settings

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- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987

7.11 Notification Triggers Settings

You can use changes in a sensor's status or in the sensor's data to trigger notifications.



Notification Triggers Tab

Although sensors activate notification triggers, you can set notification triggers in the settings of objects that are higher in the [object hierarchy](#)¹³⁸. This allows you to use the [inheritance of settings](#)¹⁴² to define notification triggers for multiple sensors. Objects that inherit notification triggers show them on the Notification Triggers tab.

■ For more information, see section [Triggers That Can Be Inherited From Parent Objects](#)³⁹⁹⁷.

You can also define notification triggers in [libraries](#)⁴⁰⁴⁷. If a sensor is in a library that has notification triggers, the sensor shows them on the Notification Triggers tab.

■ For more information, see section [Triggers That Are Defined in Libraries](#)³⁹⁹⁸.

ⓘ You can also directly edit notification templates on the Notification Triggers tab. To do so, click  next to name of a notification template.

Note

You have to take the following four steps to set up and use notifications:

1. Check and set up the [notification delivery](#)⁴¹⁹⁴ settings if you use PRTG on premises. These settings define how PRTG sends messages.
2. Check and set up [notification contacts](#)⁴¹⁶³ for the user accounts. These contacts define the recipients to which PRTG sends notifications.

3. Check and set up several [notification templates](#)⁴¹³¹. These templates define the notification methods and their content.

i You can also check or edit notification templates via the Notification Triggers tab. For more information, see section [Notification Triggers Settings](#)³⁸⁸⁷.

4. Check and set up [notification triggers settings](#)³⁸⁸⁷ for objects. These triggers define when PRTG sends notifications.

i Usually, there are three successive attempts to deliver a notification. If all of these attempts fail, the notification is lost. To never miss a notification, we recommend that you always set up at least two notifications with different notification methods for a notification trigger, for example, one email notification and one SMS notification. If delivery via email fails, PRTG can still notify you via smartphone as a fallback. For example, use the latency setting of a [state trigger](#)³⁸⁸⁸ to choose a notification with a different notification method than in the first trigger condition, or set up a second trigger with a different notification method for the corresponding object.

See sections [Notifications Based on Sensor Limits Step by Step](#)⁴⁰³⁴ and [Notifications Based on Libraries Step by Step](#)⁴⁰⁴² for step-by-step guides that describe potential notification setups.

Custom notification scripts are also available in the [PRTG Sensor Hub](#).

Notification Triggers


Select the Notification Triggers tab of an object to add or edit notification triggers. You can set up one or more of the following notification triggers:

- [State Trigger](#)³⁸⁸⁸
- [Speed Trigger](#)³⁸⁹⁰
- [Volume Trigger](#)³⁸⁹²
- [Threshold Trigger](#)³⁸⁹⁴
- [Change Trigger](#)³⁸⁹⁶

Different options are available for every notification trigger. You see the Type of notification trigger and the notification Rule that the sensor executes once it activates a notification trigger.

i Which notification triggers are available on the Notification Triggers tab depends on the kind of object you select.

State Trigger

The state trigger performs a notification when a sensor changes its status. Hover over  and select Add State Trigger from the menu to add a new state trigger or click  next to a state trigger to change it.


State Trigger When sensor state is Down ▼ for at least 60 seconds, perform no notification ▼



When sensor state is Down for at least 300 seconds, perform no notification ▼ and repeat every 0 minutes

When sensor state is no longer Down, perform no notification ▼

Add State Trigger



i PRTG includes a state trigger for the [root group](#)^[138] by default. This notification trigger performs the notification Email and push notification to admin if any sensor is in the Down [status](#)^[197] for at least 10 minutes.

Setting	Description
When sensor state is [...]	<p>Select the status that triggers a notification:</p> <ul style="list-style-type: none"> ▪ Down: Trigger a notification if a sensor changes to the Down status. ▪ Warning: Trigger a notification if a sensor changes to the Warning status. ▪ Unusual: Trigger a notification if a sensor changes to the Unusual status. ▪ Down (Partial): Trigger a notification if a sensor changes to the Down (Partial) status. This status is only possible in a cluster^[138]. ▪ Up: Trigger a notification if a sensor changes to the Up status. ▪ Unknown: Trigger a notification if a sensor changes to the Unknown status.
for at least [...] seconds,	<p>Enter the time in seconds that PRTG waits before it sends a notification (latency). This can avoid false alarms if, for example, a sensor changes to the Down status for only a few seconds. Enter an integer value.</p> <p>i Do not define a latency that is shorter than the scanning interval of a sensor that uses this trigger. The notification trigger might not work as expected in this case.</p>
perform [...]	<p>Select the notification that PRTG sends if the sensor is in the selected status and if the defined latency is over. You see all notification templates that you have defined under Setup | Account Settings | Notification Templates. Use the search box to filter for notification templates. You can also select no notification to not send a notification in this case.</p> <p>i You can also directly create and use new notification templates by clicking  in the dropdown list.</p>
When sensor state is [...] for at least [...] seconds	<p>Enter the escalation latency in seconds that PRTG waits before it sends an escalation notification. Use this to automatically escalate a notification if a problem exists for a longer time. Enter an integer value.</p> <p>i PRTG automatically fills in the selected status.</p>
perform [...]	<p>Select the notification that PRTG sends if the sensor is still in the selected status and if the defined escalation latency is over. You see all notification templates that you have defined under Setup | Account Settings | Notification Templates. Use the search box to filter for notification templates. You can also select no notification to not send a notification in this case.</p>

Setting	Description
	<ul style="list-style-type: none"> Select a notification with a different delivery method than in the first trigger condition to make sure that you receive a notification in case the first notification could not be sent. You can also directly create and use new notification templates by clicking  in the dropdown list.
and repeat every [...] minutes	<p>Enter the interval in minutes after which PRTG sends the escalation notification again. Enter an integer value.</p> <ul style="list-style-type: none"> If you enter 0, PRTG does not send the escalation notification again.
When sensor state is no longer [...], perform [...]	<p>Select the notification that PRTG sends if the sensor is no longer in the selected status and if the defined latency is over. You see all notification templates that you have defined under Setup | Account Settings | Notification Templates. Use the search box to filter for notification templates. You can also select no notification to not send a notification in this case.</p> <ul style="list-style-type: none"> PRTG automatically fills in the selected status. You can also directly create and use new notification templates by clicking  in the dropdown list.

Click  to save your settings or click  to undo your changes.

Speed Trigger



The speed trigger performs a notification if the speed that a sensor monitors changes. Hover over  and select Add Speed Trigger from the menu to add a new speed trigger or click  next to a speed trigger to change it.








Speed Trigger When **Other** channel is **Above** **bit** / **second** for at least seconds, perform **no notification**

When condition clears, perform **no notification**

[Add Speed Trigger](#)



Setting	Description
When [...] channel	<p>Select the channel whose data PRTG uses for the speed comparison. At root, probe, group, or device level or in libraries, the following channels are available:</p> <ul style="list-style-type: none"> Primary: Use the data of the primary channel of the sensor for the comparison.

Setting	Description
	<ul style="list-style-type: none"> ▪ Total: Use the data of the Total channel of the sensor for the comparison. ▪ Traffic In: Use the data of the Traffic In channel of the sensor for the speed comparison. ▪ Traffic Out: Use the data of the Traffic Out channel of the sensor for the speed comparison. <p>At sensor level, the available channels depend on the type of sensor you select.</p> <p> If you set notification triggers at root, probe, group, or device level and you want to know which sensors the notification triggers apply to, see section List of Notification Triggers and Supported Sensors.</p>
is [...]	<p>Select the condition that triggers the notification:</p> <ul style="list-style-type: none"> ▪ Above: Trigger the notification if the value of the selected channel exceeds a defined value. ▪ Below: Trigger the notification if the value of the selected channel falls below a defined value. ▪ Equal to: Trigger the notification if the value of the selected channel is the same as a defined value. ▪ Not equal to: Trigger the notification if the value of the selected channel is different than a defined value.
[value]	<p>Enter the value to which PRTG compares the channel data. Enter an integer value.</p>
[scale]	<p>Select the unit for the [value]:</p> <ul style="list-style-type: none"> ▪ bit ▪ kbit ▪ Mbit ▪ Gbit ▪ Tbit ▪ Byte ▪ KB ▪ MB ▪ GB ▪ TB <p> The available units depend on the type of sensor you select.</p>

Setting	Description
	<p> [scale] and [time] define the unit for [value]. If the channel data has a different unit, PRTG internally converts the values.</p>
[time]	<p>Select the time for the scale to create a scale per time unit:</p> <ul style="list-style-type: none"> ▪ second ▪ minute ▪ hour ▪ day <p> [scale] and [time] define the unit for [value]. If the channel data has a different unit, PRTG internally converts the values.</p>
for at least [...] seconds,	<p>Enter the time in seconds that PRTG waits before it sends a notification (latency). This can avoid false alarms if, for example, a sensor changes to the Down status for only a few seconds.. Enter an integer value.</p> <p> Do not define a latency that is shorter than the scanning interval of a sensor that uses this trigger. The notification trigger might not work as expected in this case.</p>
perform [...]	<p>Select the notification that PRTG sends if the defined [value], [scale], and [time] are true and the defined latency is over. You see all notification templates that you have defined under Setup | Account Settings | Notification Templates. Use the search box to filter for notification templates. You can also select no notification to not send a notification in this case.</p> <p> You can also directly create and use new notification templates by clicking  in the dropdown list.</p>
When condition clears, perform [...]	<p>Select the notification that PRTG sends if the defined [value], [scale], and [time] are no longer true and the defined latency is over. You see all notification templates that you have defined under Setup | Account Settings | Notification Templates. Use the search box to filter for notification templates. You can also select no notification to not send a notification in this case.</p> <p> You can also directly create and use new notification templates by clicking  in the dropdown list.</p>



Click  to save your settings or click  to undo your changes.


Volume Trigger

The volume trigger performs a notification if a sensor reaches a certain volume in a specific time. Hover over  and select Add Volume Trigger from the menu to add a new volume trigger or click  next to a volume trigger to change it.

Volume Trigger When **Other** ▾ channel reaches **0** **Byte** ▾ per **Hour** ▾, perform **no notification** ▾


Add Volume Trigger

Setting	Description
When [...] channel	<p>Select the channel whose data PRTG uses for the volume comparison. At root, probe, group, or device level or in libraries, the following channels are available:</p> <ul style="list-style-type: none"> ▪ Primary: Use the data of the primary channel of the sensor for the comparison. ▪ Total: Use the data of the Total channel of the sensor for the comparison. ▪ Traffic In: Use the data of the Traffic In channel of the sensor for the speed comparison. ▪ Traffic Out: Use the data of the Traffic Out channel of the sensor for the speed comparison. <p>At sensor level, the available channels depend on the type of sensor you select.</p> <p> If you set notification triggers at root, probe, group, or device level and you want to know which sensors the notification triggers apply to, see section List of Notification Triggers and Supported Sensors⁴⁶³⁸.</p>
reaches [value]	<p>Enter the value to which PRTG compares the channel data. Enter an integer value.</p>
[scale]	<p>Select the unit for the [value]:</p> <ul style="list-style-type: none"> ▪ Byte ▪ KB ▪ MB ▪ GB ▪ TB <p> [scale] and [time] define the unit for [value]. If the channel data has a different unit, PRTG internally converts the values.</p>
per [time],	<p>Select the time for the scale to create a scale per time unit:</p> <ul style="list-style-type: none"> ▪ Hour ▪ Day ▪ Week ▪ Month

Setting	Description
	<p>i [scale] and [time] define the unit for [value]. If the channel data has a different unit, PRTG internally converts the values.</p>
perform [...]	<p>Select the notification that PRTG sends if the defined [value], [scale], and [time] are true. You see all notification templates that you have defined under Setup | Account Settings | Notification Templates. Use the search box to filter for notification templates. You can also select no notification to not send a notification in this case.</p> <p>i You can also directly create and use new notification templates by clicking  in the dropdown list.</p>

Click  to save your settings or click  to undo your changes.

Threshold Trigger



The threshold trigger performs a notification if a sensor reaches specific values. Hover over  and select Add Threshold Trigger from the menu to add a new threshold trigger, or click  next to a threshold trigger to change it.

Threshold Trigger When Last Sync Result (#) v channel is Above v 0 for at least 60 seconds, perform no notification v

When condition clears, perform no notification v

Add Threshold Trigger

Setting	Description
When [...] channel	<p>Select the channel whose data PRTG uses for the threshold comparison. At root, probe, group, or device level or in libraries, the following channels are available:</p> <ul style="list-style-type: none"> ▪ Primary: Use the data of the primary channel of the sensor for the comparison. ▪ Total: Use the data of the Total channel of the sensor for the comparison. <p>At sensor level, the available channels depend on the type of sensor you select.</p> <p>i The threshold trigger for a Total channel that you define at group or device level or in libraries only applies to the Total channel of traffic sensors. This channel has the ID -1. The threshold trigger works with the Total channel of the following sensors:</p> <ul style="list-style-type: none"> ▪ Amazon CloudWatch EBS ▪ IPFIX

Setting	Description
	<ul style="list-style-type: none"> ▪ IPFIX (Custom) ▪ jFlow v5 ▪ jFlow v5 (Custom) ▪ NetFlow v5 ▪ NetFlow v5 (Custom) ▪ NetFlow v9 ▪ NetFlow v9 (Custom) ▪ Packet Sniffer ▪ sFlow ▪ sFlow (Custom) ▪ SMTP&IMAP Round Trip ▪ SMTP&POP3 Round Trip ▪ SNMP Traffic (channel Traffic Total) ▪ Windows Network Card <p> If you set notification triggers at root, probe, group, or device level and you want to know which sensors the notification triggers apply to, see section List of Notification Triggers and Supported Sensors.</p>
...is [...]	<p>Select the condition that triggers the notification:</p> <ul style="list-style-type: none"> ▪ Above: Trigger the notification if the value of the selected channel exceeds a defined value. ▪ Below: Trigger the notification if the value of the selected channel falls below a defined value. ▪ Equal to: Trigger the notification if the value of the selected channel is the same as a defined value. ▪ Not equal to: Trigger the notification if the value of the selected channel is different than a defined value.
[value]	<p>Enter the value to which PRTG compares the channel data. Enter values in the smallest (base) unit that is possible, for example, in bytes, milliseconds, or percent. Enter an integer value.</p>
..for at least [...] seconds,	<p>Enter the time in seconds that PRTG waits before it sends a notification (latency). This can avoid false alarms if, for example, a sensor changes to the Down status for only a few seconds. Enter an integer value.</p> <p> Do not define a latency that is shorter than the scanning interval of a sensor that uses this trigger. The notification trigger might not work as expected in this case.</p>

Setting	Description
...perform [...]	<p>Select the notification that PRTG sends if the defined channel condition is true and the defined latency is over. You see all notification templates that you have defined under Setup | Account Settings | Notification Templates. Use the search box to filter for notification templates. You can also select no notification to not send a notification in this case.</p> <p>i You can also directly create and use new notification templates by clicking + in the dropdown list.</p>
When condition clears, perform [...]	<p>Select the notification that PRTG sends if the defined channel condition is no longer true and the defined latency is over. You see all notification templates that you have defined under Setup | Account Settings | Notification Templates. Use the search box to filter for notification templates. You can also select no notification to not send a notification in this case.</p> <p>i You can also directly create and use new notification templates by clicking + in the dropdown list.</p>

Click **✓** to save your settings or click **x** to undo your changes.

Change Trigger

i Before you set up a change trigger, make sure that you enable the Trigger 'change' notification setting in the sensor's settings, otherwise PRTG never sends the notification.

Advanced Sensor Data



Protocol Version **i** HTTP 1.0
 HTTP 1.1

User Agent **i** Use PRTG's default string
 Use a custom string

HTTP Headers **i** Do not use custom HTTP headers
 Use custom HTTP headers

Content Changes **i** Ignore changes
 Trigger 'change' notification



Trigger 'Change' Notification



The change trigger performs a notification if a compatible sensor's value changes. Hover over  and select Add Change Trigger from the menu to add a new change trigger, or click  next to a change trigger to change it.

Change Trigger
When sensor changes, perform

no notification
▼

Add Change Trigger

Setting	Description
When sensor changes, perform [...]	<p>Select the notification that PRTG sends if a compatible sensor triggers a 'change' notification. You can enable this option in the settings^[476] of compatible sensors. You see all notification templates that you have defined under Setup | Account Settings | Notification Templates. Use the search box to filter for notification templates. You can also select no notification to not send a notification in this case.</p> <p> You can also directly create and use new notification templates by clicking  in the dropdown list.</p>






Click  to save your settings or click  to undo your changes.

Triggers That Can Be Inherited from Parent Objects

You see a list of all notification triggers that the selected object inherits from parent objects. The list is empty and shows the message ([no triggers defined](#)) if you have not set any notification triggers for objects that are higher in the [object hierarchy](#)^[138].

Triggers that can be inherited from parent objects

Inherit all triggers from parent objects and use the triggers defined above
 Only use the triggers defined above

Type ^	Rule	Inherited from
State Trigger	When sensor state is Down for at least 60 seconds, perform @ Email to Admin  When sensor state is Down for at least 300 seconds, perform  Assign Ticket  and repeat every 0 minutes When sensor state is no longer Down, perform @ Email to Admin 	 Root

Trigger Inheritance

Setting	Description
Trigger Inheritance	Select the notification triggers that you want to use for the selected object:

Setting	Description
	<ul style="list-style-type: none"> Inherit all triggers from parent objects and use the triggers defined above: Use the inherited notification triggers in section Triggers that can be inherited from parent objects and use the specific triggers for this object in section Notification Triggers. To change settings of the inherited notification triggers, click the name of the monitoring object in the column Inherited from to open its Overview tab and then open the Notification Triggers tab. Only use the triggers defined above: Do not use the inherited notification triggers in section Triggers that can be inherited from parent objects. Only use the triggers that you define for this object in section Notification Triggers. <p>i This setting is valid for all notification triggers that you see here. It is not possible to select only some of the notification triggers.</p> <p>i You can also click a notification template to edit its settings or click the object under Inherited from to go to the object's Overview tab.</p>

Triggers That Are Defined in Libraries

You see a list of all notification triggers that are set in libraries [\[4047\]](#) that contain the selected sensor. The list is empty and shows the message [\(no triggers defined\)](#) if you have not set any notification triggers in libraries that contain the selected sensor.

Triggers that are defined in libraries

Type ^	Rule	Inherited from
State Trigger	When sensor state is Down for at least 60 seconds, perform @ Send Email [4047]	All diskspace sensors
	When sensor state is Down for at least 300 seconds, perform > Send Push Notification [4047] and repeat every 5 minutes	
	When sensor state is no longer Down, perform @ Send Email [4047]	

If you want to change these notification triggers, remove the sensor from the library or edit the notification triggers on the library's Notification Triggers tab.








Triggers in Libraries

Click a notification template to change its settings. Click a library in the column Inherited from to view the library.

i You cannot disable notification trigger usage from a library here. If you do not want to use notification triggers from a library for the selected sensor, open the library and remove the sensor from it or edit the notification triggers on the Notification Triggers [tab \[4064\]](#) of the library.

Device and Sensor Setup

- [Auto-Discovery \[296\]](#)
- [Create Objects Manually \[299\]](#)
- [Manage Device Tree \[364\]](#)
- [Root Group Settings \[366\]](#)

- [Probe Settings](#)  385
- [Group Settings](#)  413
- [Device Settings](#)  446
- [Sensor Settings](#)  476
- [Additional Sensor Types \(Custom Sensors\)](#)  3972
- [Channel Settings](#)  3977
- [Notification Triggers Settings](#)  3987













Part 8

Advanced Procedures

8 Advanced Procedures

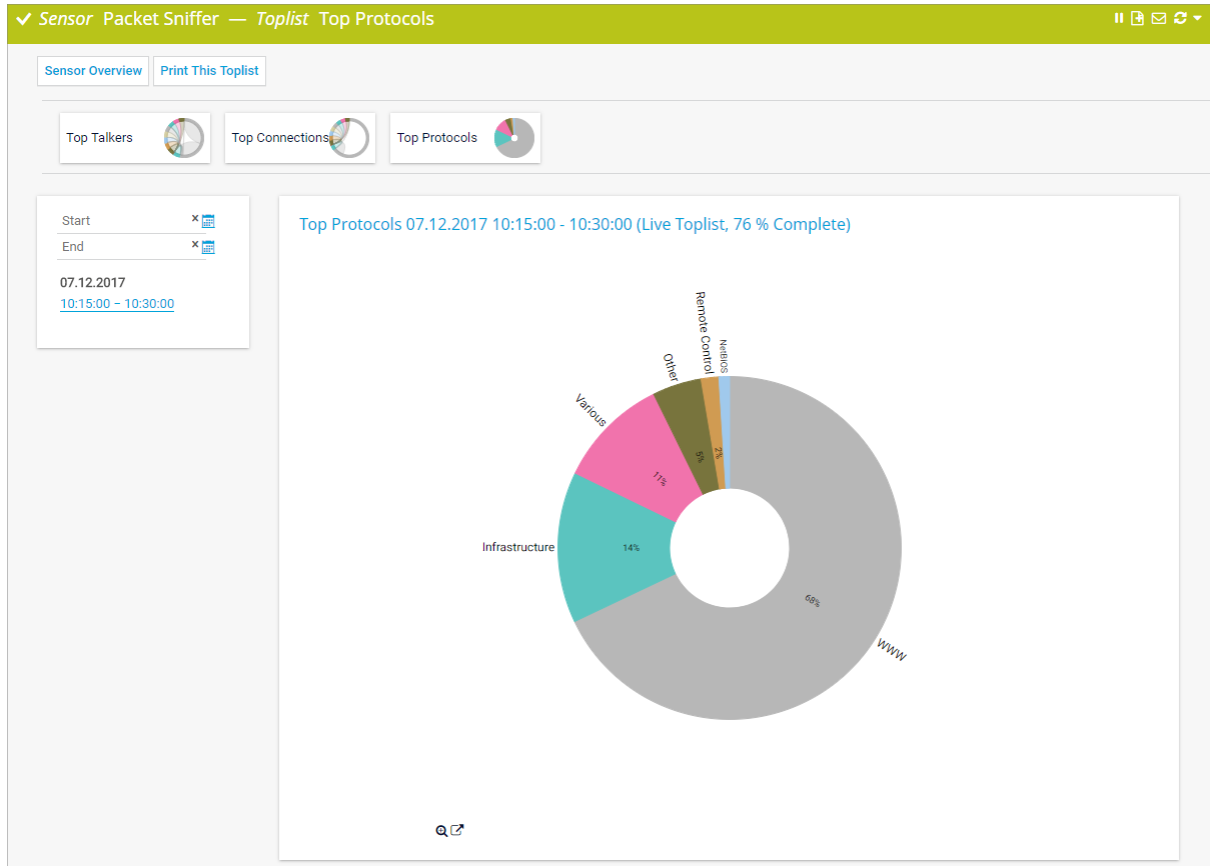
The following sections introduce more advanced features and procedures of PRTG.

Advanced Procedures

- [Toplists](#)  4002
- [Move Objects](#)  4007
- [Clone Object](#)  4010
- [Multi-Edit](#)  4014
- [Create Device Template](#)  4019
- [Show Dependencies](#)  4023
- [Geo Maps](#)  4026
- [Notifications](#)  4031
- [Libraries](#)  4047
- [Reports](#)  4069
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8.1 Toplists

Packet Sniffer sensors and xFlow (NetFlow, jFlow, sFlow, IPFIX) sensors not only measure the total bandwidth usage, but also break down traffic by IP address, port, protocol, and other parameters. This way, PRTG can tell which IP address, connection, or protocol uses the most bandwidth. PRTG shows the results in [Toplists](#).

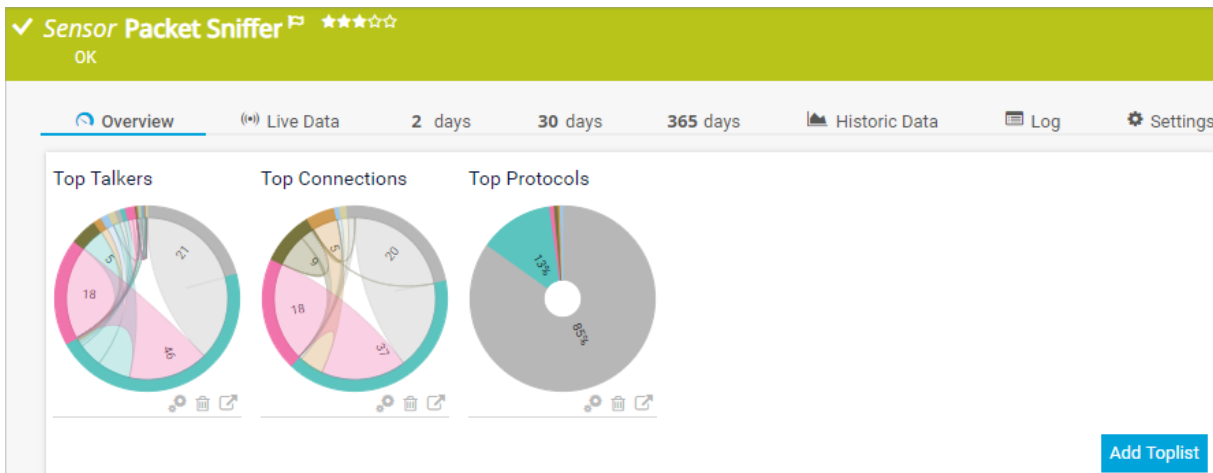


Toplist Storage

PRTG looks at all network packets and collects the bandwidth information for all IPs, ports, and protocols. This creates a huge amount of analysis data. To reduce the amount of data that is actually stored, PRTG only stores the top 100 entries of each Toplist in the database at the end of a specified Toplist period by default.

Toplist Overview

Toplists are only available for [xFlow and Packet Sniffer sensors](#)^[4600]. PRTG displays Toplist on the sensor's Overview [tab](#)^[201].




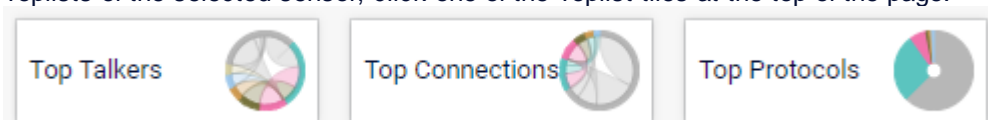
Toplist Overview for a <%P_Packet_Sniffer%> Sensor

By default, there are three preconfigured Toplists:


Toplist	Description
Top Talkers	Shows bandwidth usage by IP address.
Top Connections	Shows bandwidth usage by connection.
Top Protocols	Shows bandwidth usage by protocol.

Working with Toplists

- Click one of the Toplist names on the sensor's Overview tab or click  below a Toplist to view a distribution chart and a list of source IPs and destination IPs, source ports and destination ports, protocols, or kinds of traffic in different channels, for example. What kind of information is available depends on the selected Toplist.
 - Click an entry in the Toplist periods list on the left side to view data for a specific time period. The default time period is 15 minutes. You can also manually define the start and end time of the Toplist period that you want to view. Use the date time picker to enter the date and time. Additionally, several [table list options](#)^[246] are available.
 - Click Print This Toplist to view a printer-friendly version of your Toplist and use the print dialog of your browser to print the Toplist.
 - Click Sensor Overview to return to the selected sensor's Overview tab. For a quick selection of other Toplists of the selected sensor, click one of the Toplist tiles at the top of the page.













Toplist Tiles

- Click Add Toplist on the sensor's Overview tab to create a new Toplist. The available options are the same as when you [edit](#)^[400a] a Toplist.
- Click  below a Toplist on the sensor's Overview tab and confirm with Delete to delete the Toplist.

Edit Toplists

Click  below a Toplist on the sensor's Overview tab to modify a Toplist.

Setting	Description
Name	<p>Enter a meaningful name to identify the Toplist.</p> <p> If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Toplist Type	<ul style="list-style-type: none"> ▪ Top Talkers (IP address): Shows bandwidth usage by IP address. ▪ Top Connections: Shows bandwidth usage by connection. ▪ Top Protocols: Shows bandwidth usage by protocol. ▪ Custom: Create your own Toplist by selecting one or more Toplist fields.
Toplist Fields	<p>This setting is only visible if you select the Custom option. Select the fields that you want to add to the Toplist by enabling the check box in front of the respective field name. The available options depend on the sensor. They are different for Packet Sniffer, NetFlow v5, NetFlow v9, IPFIX, and sFlow sensors.</p> <p> For performance reasons, only select the fields that you really need to monitor.</p> <p> For more information, see section Performance Considerations  ⁴⁰⁰⁵.</p>
Toplist Period (Minutes)	<p>Define the time span that a Toplist period covers in minutes. Enter an integer value. When a Toplist period is finished, PRTG stores the top results and starts a new Toplist period.</p> <p> To avoid load problems on the probe system, do not set this time period too long. The default setting is 15 minutes.</p> <p> For more information, see section Performance Considerations  ⁴⁰⁰⁵.</p>
Top Count	<p>Define the length of your Toplist. PRTG stores only this number of entries for each Toplist period. Enter an integer value.</p> <p> To avoid load problems on the probe system, set this value as low as possible. The default setting is 100 to store the top 100 entries for each Toplist period.</p> <p> For more information, see section Performance Considerations  ⁴⁰⁰⁵.</p>


Setting	Description
Reverse DNS Lookup	<p>Define if you want to do a reverse Domain Name System (DNS) lookup for IP addresses that are stored in the Toplist:</p> <ul style="list-style-type: none"> Reverse DNS lookup for IP addresses: Determine the domain name that is associated with an IP address and show it in the Toplist. No reverse DNS lookup: Only show IP addresses. Select this option to increase performance.
Data Transfer	<p>Define how the probe sends the Toplist data set to the PRTG core server:</p> <ul style="list-style-type: none"> According to scanning interval (default): Send data in the scanning interval defined in the settings of the sensor for which you create this Toplist. <ul style="list-style-type: none"> i This setting can create a lot of bandwidth usage and CPU load if you have many Packet Sniffer sensors, complex traffic, or long Toplists. At end of Toplist period: Send data once a Toplist period is finished. <ul style="list-style-type: none"> i This setting creates less bandwidth usage and CPU load, but you cannot see the data of the current Toplist in the PRTG web interface. You can only see Toplists with finished time periods. <p>■ For more information, see section Performance Considerations ⁴⁰⁰⁵.</p>
Memory Limit (MB)	<p>Define the maximum amount of memory (in megabytes) that the probe uses to collect the different connection information. Every Toplist adds its amount of used memory to the probe's memory consumption. Increase this value if the number of captured connections is not sufficient. Enter an integer value.</p>

i Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.


Performance Considerations

If you create Toplists for data lines with considerable usage (for example, steady bandwidth over 10 megabits per second) or if the traffic is very diverse (for example, many IP addresses or ports with only little traffic each), consider the following aspects:

- The probe gathers all information that is needed for the Toplist in RAM during each Toplist period. By default, only the top 100 entries are transferred to the PRTG core server. Depending on the Toplist type and the traffic patterns, the required memory can consume many megabytes.
- Define Toplist periods that are as short as possible to minimize memory usage. This is especially important when the traffic is highly diverse.
- Memory requirements can grow almost exponentially with each Toplist field that you use in the Toplist definition (depending on the traffic pattern). Avoid complex Toplists for high and diverse traffic. For example, the Toplist Top Connections with 5 Toplist fields needs a lot more memory than the Toplist Top Talkers with 1 Toplist field.

- If you notice a high bandwidth usage between the PRTG core server and the probe, try the At end of Toplist period option in the [Toplist settings](#) .
- If you get **Data incomplete, memory limit was exceeded** messages, try to increase the memory limit in the Toplist settings but keep an eye on the memory usage of the probe process.
- To increase the performance of a Toplist, disable the reverse DNS lookup setting.

Notes

- When you work with Toplists, be aware that privacy issues can come up for certain configurations of this feature. Using Toplists, you can track all single connections of an individual system to the outside world and you must make sure that it is legal for you to configure PRTG like this.
- Keep in mind that Toplists can be viewed in the PRTG web interface. You might not want to show lists of domains that are used in your network to others, so restrict [access rights](#)  to sensors that have Toplists.
- Toplist charts, for example for top connections, are not meant to be used for detailed analysis. Instead, they should indicate if there is an uncommon, bigger change in this Toplist.













More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Advanced Procedures

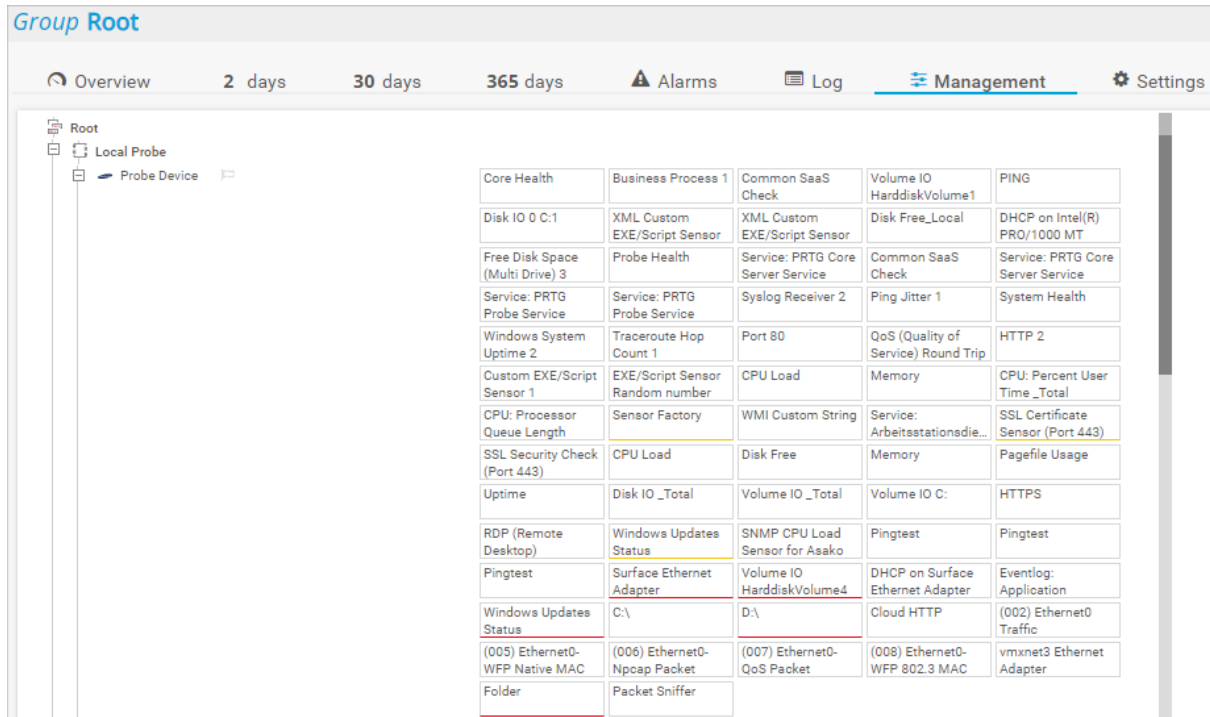
- [Toplists](#) 
- [Move Objects](#) 
- [Clone Object](#) 
- [Multi-Edit](#) 
- [Create Device Template](#) 
- [Show Dependencies](#) 
- [Geo Maps](#) 
- [Notifications](#) 
- [Libraries](#) 
- [Reports](#) 
- [Maps](#) 
- [Setup](#) 

8.2 Move Objects

There are several options for moving objects in the device tree or for moving objects from one probe or group to a different probe or group.

Probes or Groups: Management Tab

The Management tab is available when you view probes or groups. After you click this tab, you can directly move devices and sensors in the device tree via drag-and-drop.



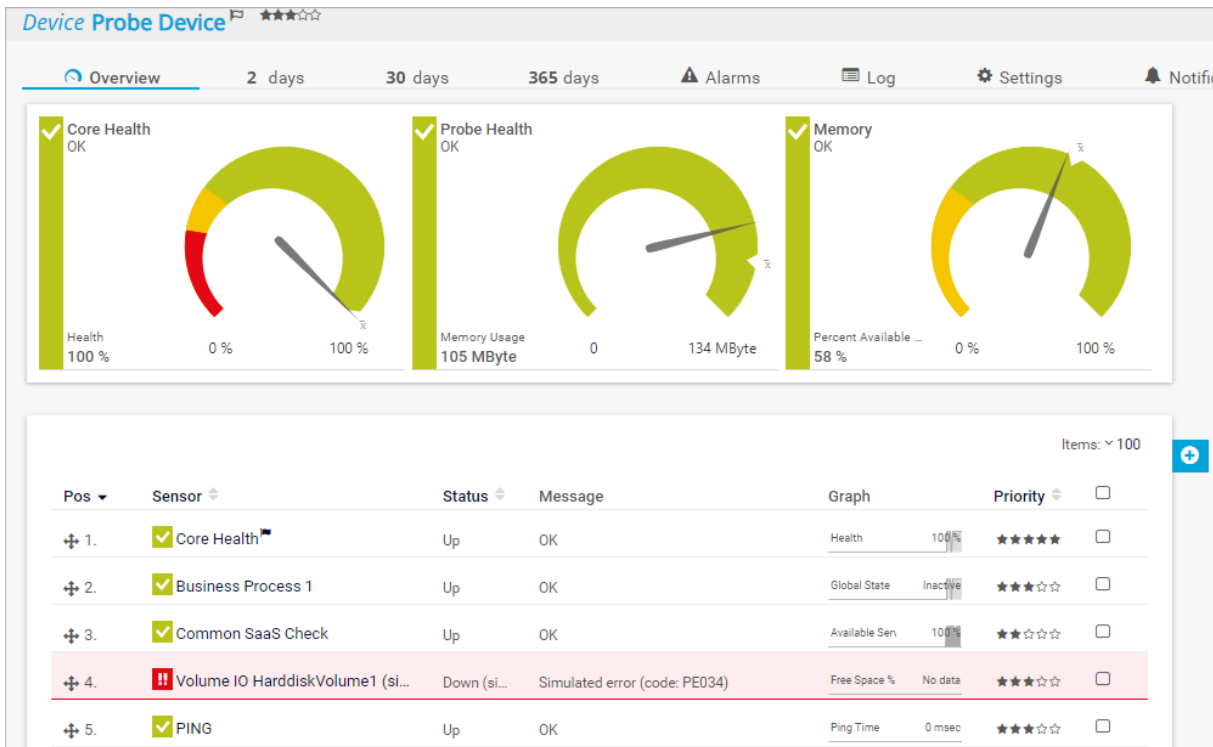
Move Objects on a Probe or Group

i If it is not possible to move an object, PRTG automatically starts a [clone](#) process.

■ For more information, see section [Manage Device Tree](#).

Devices: Overview Tab

When you view the Overview tab of a device, you see a list of all sensors on the device.

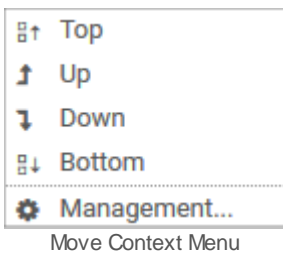


Move Sensors on a Device

Click the column headers Pos, Sensor, Status, or Priority to sort the sensor list. To change a sensor's position, click at the beginning of the row, drag the sensor to the new position, and drop it.

Context Menu: Move Option










Right-click any object in the device tree to show its [context menu](#)²⁵⁹. Hover over Move to open the Move menu. The following actions are available:



- Top: Move the object to the top of the parent object.
- Up: Move the object one entry up.
- Down: Move the object one entry down.
- Bottom: Move the object to the bottom of the parent object.
- Management: Open the [Management](#)³⁶⁴ tab of the object. This setting is only available for probes and groups.

Advanced Procedures

- [Toplists](#)⁴⁰⁰²

- [Move Objects](#)  4007
- [Clone Object](#)  4010
- [Multi-Edit](#)  4014
- [Create Device Template](#)  4019
- [Show Dependencies](#)  4023
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- [Setup](#)  4121

8.3 Clone Object

If you want to duplicate an object with the same settings, you can clone it. Cloning is available for groups, devices, and sensors.

Rules

The following rules for cloning apply:

- The new object takes over all settings of the original object. This means, for example, that an [auto-discovery](#) starts automatically on a cloned device if this setting is enabled on the original device.
- A cloned device contains all objects of the original device, regardless of whether they produce working sensors or not. This often depends on the settings of the cloned device.
i This behavior is different from [creating a device template](#).
- Cloned sensors initially show the Paused [status](#) to give you the chance to change any settings before monitoring starts. Check the settings and [resume](#) monitoring.
- You cannot clone [fixed](#) objects such as the root group, a probe device, or PRTG system-internal sensors.
- The [user account](#) that clones an object must have at least [read access](#) to this object and all objects underneath in the [object hierarchy](#). The user group to which this user account belongs must have the [permission](#) to create all sensors that run on the device or group that they want to clone.

Clone an Object

Right-click an object in the device tree and select Clone from the [context menu](#) to open an assistant.

i If you want to clone a [sensor](#), a faster way is to use the [manage device tree](#) function.



Duplicate Sensors by Cloning

To duplicate a sensor by creating a clone of the sensor, select a parent device and enter a new name for the sensor.



Note: After you clone a sensor, PRTG sets the new sensor to the **Paused** status so that you can edit the sensor's settings before you actually start monitoring.

Sensor to Be Cloned


Parent Probe

 Local Probe (Local Probe) 

Parent Group

 Local Probe (Local Probe) 

Parent Device

 Probe Device

Sensor


Business Process

Name for New Sensor

New Sensor Name

Clone of Business Process

Parent Device for New Sensor

Select the device to which you want to add the sensor clone. 



A tree view showing the hierarchy of devices. The root node is 'Root'. Under 'Root', there is a 'Local Probe' node. Under 'Local Probe', there is a 'Probe Device' node. A search bar is located to the right of the tree view.

Cancel

Continue

Clone Dialog for a Sensor

Clone Object Settings

[Object] To Be Cloned

Several fields show information about the object that you want to clone. The available information varies depending on whether you clone a group, a device, or a sensor.

Name for New [Object]

Enter information for the new object as described below.

Field	Description
New [Object] Name	<p>Enter a meaningful name for the new object to identify it later, for example, in the device tree or in table lists. By default, PRTG uses the old name with the prefix Clone of.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
New IP Address/DNS Name	<p>This setting is only available when you clone a device. Enter the IP address or Domain Name System (DNS) name for the new device.</p>
Service URL	<p>This setting is only available when you clone a device. Specify a URL that you want to open directly when you select Device Tools | Go To Service URL from the context menu of the device. For example, you can configure this option to call the address http://www.example.com/service.html. Enter a valid URL or leave the field empty.</p>

Parent [Object] for New [Object]

Use the [object selector](#)^[251] to select the object to which you want to add the cloned object. If you clone a group or a device, select a group. If you clone a sensor, select a device.

Click Continue to clone the object.

Results

After you clone an object, you can see the following:

- If you clone a sensor, the Overview [tab](#)^[201] of the new sensor opens.
- If you clone a group or a device, you stay on the same page.
- Cloned sensors initially show the Paused [status](#)^[256] to give you the chance to change any settings before monitoring starts. Check the settings and [resume](#)^[256] monitoring.












More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Advanced Procedures

- [Toplists](#)  4002
- [Move Objects](#)  4007
- [Clone Object](#)  4010
- [Multi-Edit](#)  4014
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8.4 Multi-Edit

[Table lists](#) ^[246] offer the multi-edit functionality. With this, you can bulk edit the properties of many objects. Multi-edit is also available on the Management tab of probes or groups when you hold down the **Ctrl** key to select multiple objects. See also section [Manage Device Tree](#) ^[364].

- ❗ You cannot change every setting with multi-edit. PRTG only displays settings that all selected objects have in common.

Multi-Edit in Table Lists

In a table list, you can select several objects by enabling the check boxes on the right. You can also select all objects on the page at once by enabling the check box in the table header.

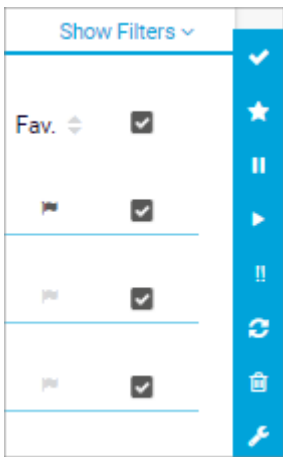
- ❗ Selecting all objects via the check box in the table header does not select all objects across multiple pages. It only selects all objects on the first page in most cases.

Sensor	Probe Group Device	Status	Last Value	Message	Graph	Priority	Fav.	Perf. Impact	
<input checked="" type="checkbox"/> (001) Alias 1 Traffic	Local Probe (Local Probe) » Servers » SNMP V3 DES Por...	Up	92 kbit/s	OK	Traffic Total 92 kbit/s	★★★★★	🔒	🟢	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Cluster Health	Cluster Probe » Cluster Probe Devi...	Up	0 #	OK	Outbound Clu 0 #	★★★★★	🔒	🟢	<input type="checkbox"/>
<input checked="" type="checkbox"/> Core Health	Local Probe (Local Probe) » Probe Device	Up	100 %	OK	Health 100 %	★★★★★	🔒	🟢	<input type="checkbox"/>
<input checked="" type="checkbox"/> Core Health	Cluster Probe » Cluster Probe Devi...	Up	100 %	OK	Health 100 %	★★★★★	🔒	🟢	<input type="checkbox"/>
<input checked="" type="checkbox"/> Memory	Local Probe (Local Probe) » Probe Device	Up	42 %	OK	Percent Avail 42 %	★★★★★	🔒	🟡	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Ping	Local Probe (Local Probe) » Groupo Auto »	Up	1 msec	OK	Ping Time 1 msec	★★★★★	🔒	🟢	<input checked="" type="checkbox"/>

Example of a Table List with Some Selected Objects

Use the Items option in the upper-right corner to view more items per page.

When you select one or more objects, the multi-edit menu appears in which different functions are available. The available menu options depend on the selected objects. For sensor lists, for example, some frequently used functions are Pause (⏸), Resume (▶), Scan Now (🔄), Delete (🗑), or Settings (⚙). Click a button to apply the respective function to all selected objects.



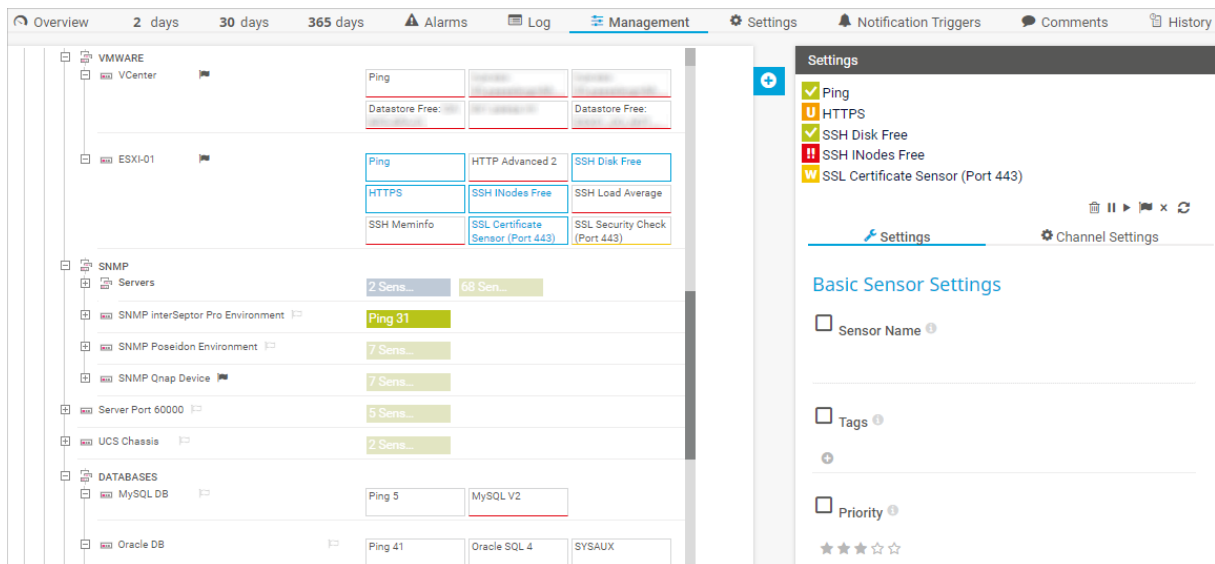
Multi-Edit Menu

Multi-Edit on the Management Tab

The Management tab is available for probes and groups.


You can use multi-edit for object settings:

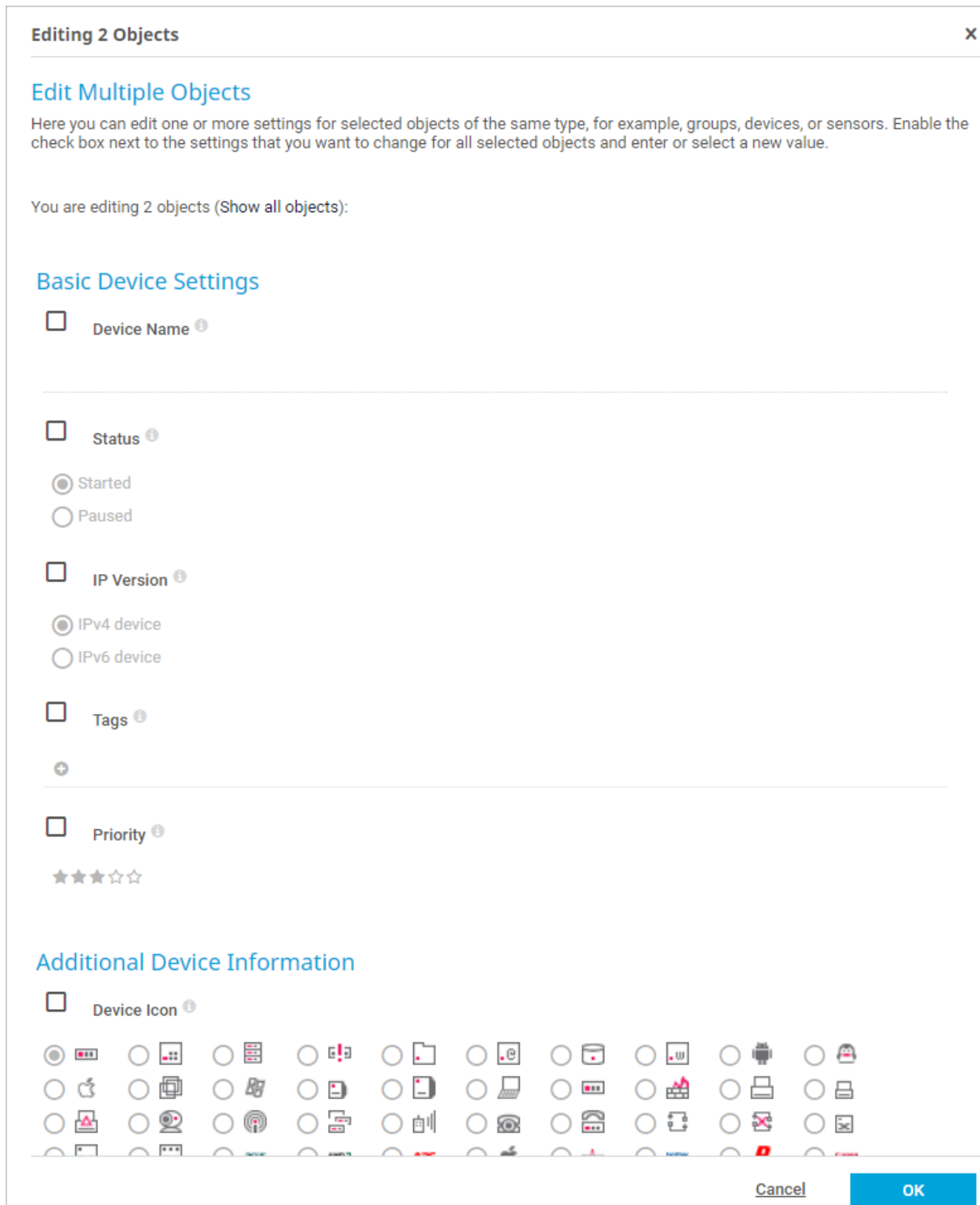
- Hold down the **Ctrl** key and select multiple objects of the same type, for example, multiple groups, devices, or sensors.
- In the dialog that appears, select the properties that you want to edit, change the respective settings, and click Save. The changes are applied to all selected objects.



Multi-Edit on the Management Tab

Edit Object Settings

Click  in the multi-edit menu to open the Edit Multiple Objects dialog. This dialog shows most of the settings that the selected objects have in common. For example, you can edit the name, tags, priority, scanning interval, or access rights. The available options depend on the selected objects.



Example of Device Settings in Multi-Edit Mode

To change a property, enable the check box in front of the respective setting and then change the setting. New settings are applied to all selected objects. All properties with a disabled check box remain unchanged.

i Click OK to save your settings. If you close the dialog without saving, all changes to the settings are lost.

Edit Channel Settings

The Channel Settings tab in the Edit Multiple Objects dialog is only available when you edit multiple sensors. The available settings depend on the selected sensors. You can edit the settings of all channels that the selected sensors have in common. Select a channel name from the Channel list. You can then edit display settings, colors, scaling, and limits, for example.

Editing 2 Objects
✕

Edit Multiple Objects

This page allows to edit one or more settings for a selection of objects (groups, devices, sensors, etc.). First enable the checkbox in the first column for each setting that you want to change for all selected objects. Then enter/select your new value.

You are editing 2 objects (Show all objects):

⚙ Settings
← Channel Settings

Select Channel

Channel

- Downtime (ID -4)
- Ping Time (ID 0)
- Minimum (ID 1)
- Maximum (ID 2)
- Packet Loss (ID 3)

Edit Channel ""


- Graph Rendering** ⓘ
 - Show in Graphs
 - Hide from Graphs
- Table Rendering** ⓘ
 - Show in Tables
 - Hide from Tables
- Line Color** ⓘ
 - Automatic
 - Manual
- Line Width** ⓘ

1













Cancel
OK

Example of Channel Settings in Multi-Edit Mode

To change a property, enable the check box in front of the respective setting and then change the setting. New settings are applied to all selected objects. All properties with a disabled check box remain unchanged.

 Click OK to save your settings. If you close the dialog without saving, all changes to the settings are lost.

Advanced Procedures

- [Toplists](#)  4002
- [Move Objects](#)  4007
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8.5 Create Device Template

To add a specific device several times, you can create a device template from this device. When you create a device template, PRTG saves information for nearly all sensors on this device to a template file that you can later use in combination with the [auto-discovery](#) (restrictions apply for a few sensors). Custom device templates are also available in the [PRTG Sensor Hub](#).

In the device template, PRTG saves all relevant [sensor settings](#) except for settings that you set on other objects, such as [schedules](#), [notification triggers](#), and [access rights](#). PRTG automatically sets these settings to inherited settings.

To create a device template, right-click a device in your device tree. From the [context menu](#), select Create Device Template to open the Creating Device Template dialog.

Create Device Template for Probe Device ✕

Create Device Template

To create a device template that you can use for auto-discovery, you have to provide a template name in clear text. PRTG uses this name in the template list in the auto-discovery assistant. A device template contains an entry for every sensor of the selected device. This entry includes all relevant sensor settings except settings that refer to other objects like schedules, triggers, or access rights. PRTG reverts these settings to inherited settings when you create a sensor via a device template.

Note: There are sensors that you cannot save in a device template. For a list of these sensors, see the [PRTG Manual: Create Device Template](#).

Enter Template Name

Template Name ⓘ

Example Device Template

You can exclude sensors from the device template. Enable the check box in front of a sensor that you want to exclude.

Note: Sensors that you cannot save in a device template do not appear in this list.

Note: Sensors that dynamically scan for available monitoring items when you add the sensor to a device do not appear in this list. PRTG automatically includes these sensors in the device template if they support the device template functionality. You cannot exclude these sensors from the device template.

Exclude Sensors

🔍

▲ Sensors

- CPU Load
- Disk Free
- HTTPS
- Memory
- Pagefile Usage

Cancel OK

Create Device Template Assistant

Template Settings

Setting	Description
Template Name	<p>Enter a meaningful display name for the device template.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Exclude Sensors	<p>Enable the check box in front of the sensors that you want to exclude from the device template.</p> <p>i Sensors that you cannot save in device templates do not appear in this list.</p> <p>i Sensors that dynamically scan for available monitoring items when you add the sensor to a device do not appear in this list. PRTG automatically includes these sensors in the device template if they support the device template functionality. You cannot exclude these sensors from the device template.</p>

i Click OK to save your settings. If you close the dialog without saving, all changes to the settings are lost.

i Device templates only save the sensors on the device and the sensors' settings including the [channel settings](#)³⁹⁷⁷. They do not save the device itself or the device's settings. To successfully create a device template, you must add sensors to the device (either [manually](#)³⁶¹ or via the auto-discovery) and the sensors must be [device template capable](#)⁴⁰²¹.

After you save your device template file, you see a message where you can review the sensors that the new device template contains. Click OK to finish. PRTG stores the device template in the \devicetemplates subfolder of the [PRTG program directory](#)⁴⁵²⁶. Your device template file contains all sensors of the original device, including the sensors' settings.

Before the next auto-discovery, choose the Auto-discovery with specific device templates setting and select the name of your new device template from the list. PRTG then tries to discover the stored sensors. If the physical device answers to a sensor request, the sensor is added to the respective device in PRTG.

i For more information, see section [Auto-Discovery](#)²⁹⁶.

Restrictions

There are a few settings that you cannot save in a device template so PRTG uses the default settings:

- The Dependency Type setting Master sensor for parent in the Schedules, Dependencies, and Maintenance Window section,
- The Result Handling setting Store result because this setting is only intended for debugging purposes,
- Settings in the Access Rights section to avoid security flaws, and

- Notification triggers settings that you set on other objects, for example, a device or group. PRTG saves, however, notification triggers settings that you set directly on a sensor.
- ❗ In general, you cannot save all sensor settings and channel settings (for example, channel limits of dynamically created channels) of sensors that dynamically scan for available monitoring items when you add the sensor.

Furthermore, because of internal restrictions, PRTG does not save every sensor in a device template.

■ For more information, see section [List of Sensors without Device Template Capability](#) 

Device Template Updates

Once a device template is created, it is not possible to add additional sensors to it via the PRTG web interface. If you want to create a device template with an extended set of sensors, you need to create a new template.

❗ When you save a new device template, PRTG updates all internal sensor IDs in this template. Because of this, PRTG creates all sensors that the new device template contains anew on the device to which you apply the template, even if the same sensors have already been created on this device with a different device template.

❗ You cannot delete device templates via the PRTG web interface.

☁ You cannot edit device template files in PRTG Hosted Monitor.

Device Template Filtering

You can include and exclude sensors from existing device templates. For details, see the Knowledge Base: [How can I include and exclude sensors from device templates?](#)

More

■ KNOWLEDGE BASE







What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>



How can I include and exclude sensors from device templates?

- <https://kb.paessler.com/en/topic/89025>

Advanced Procedures

- [Toplists](#) 
- [Move Objects](#) 
- [Clone Object](#) 
- [Multi-Edit](#) 
- [Create Device Template](#) 
- [Show Dependencies](#) 
- [Geo Maps](#) 

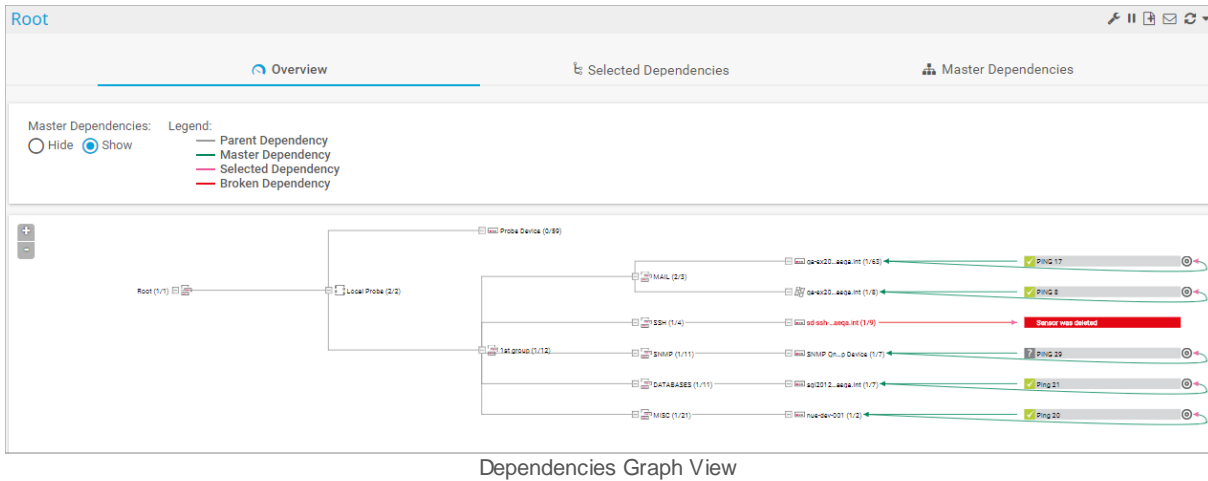
Part 8: Advanced Procedures | 5 Create Device Template

- [Notifications](#)  4031
- [Libraries](#)  4047
- [Reports](#)  4069
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8.6 Show Dependencies

The [Dependencies](#) ¹⁴⁸ functionality gives an overview of the dependencies that are configured for the objects in your setup.

To see an object's dependencies, select **Devices | Dependencies** from the [main menu bar](#) ²⁷⁹.



Dependencies Graph View

Tab	Description
Overview	Shows the dependencies graph ⁴⁰²³ . This is a visualization of device, group, and sensor dependencies. i To show the dependencies graph, you need to access the PRTG web interface as an administrator.
Selected Dependencies	Shows a table list of manually set dependencies (see the Dependency setting in section Schedules, Dependencies, and Maintenance Window in any object's settings).
Master Dependencies	Shows a table list of master dependencies.





Dependencies Graph

The Overview [tab](#) ¹⁸⁶ shows the device tree in the dependencies graph view. The lines in the dependencies graph symbolize dependencies between the monitoring objects in the device tree. Additionally, PRTG uses different [line colors](#) ⁴⁰²⁴ for the dependencies. You can also view the dependencies in different table lists on the Select Dependencies tab or the Master Dependencies tab.

i To show the dependencies graph, you need to access the PRTG web interface as an administrator.


You can take the following actions:




- Enable the Show or Hide option to show or hide master dependencies. Hide is enabled by default to only show parent dependencies, selected dependencies, and broken dependencies.
i For technical reasons, the Show and Hide radio buttons are not available in Internet Explorer. Use Google Chrome 72 or Mozilla Firefox 65 instead.

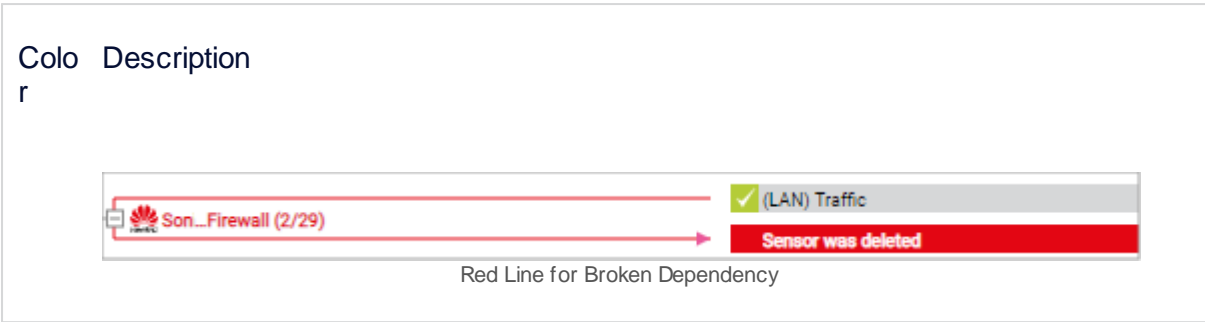
- Click  or  in the upper-left corner to zoom in or out of the dependencies graph.
- Click probe and group nodes to show the respective dependencies.
- Click device or sensor nodes to open the corresponding Overview tab.
- Click  or  to expand or collapse probe and group nodes.
- The numbers in parentheses indicate how many child nodes of an object are shown.

Legend of Dependencies Graph













The line's colors show the kind and source of a dependency. This represents the Dependency Type as defined in the Schedule, Dependencies, and Maintenance Window settings of a [probe](#)^[405], [group](#)^[439], [device](#)^[470], or [sensor](#)^[476].

 You can also find the legend for the line colors in the graph header bar.

Color	Description
Gray	<p>Gray lines show a dependency by inheritance (Use parent setting). The source of the dependency is the parent object on the left end of the line, for example, Root is the parent of Local Probe.</p>  <p>Gray Line for Parent Dependency</p>
Green	<p>Green lines show a master dependency for a device (Master sensor for parent setting). The sensor that is set as the master points to the dependent device with a green arrow head at the line's end. The arrow head from the dependent device to its master sensor is pink.</p>  <p>Green Line for Master Dependency</p>
Pink	<p>Pink lines show a dependency that you set manually (Select a sensor setting). The source of the dependency points to the dependant with a pink arrow at the line's end.</p>  <p>Pink Line for Selected Dependency</p>
Red	<p>Red lines indicate broken dependencies, for example, if the master sensor is not available.</p>

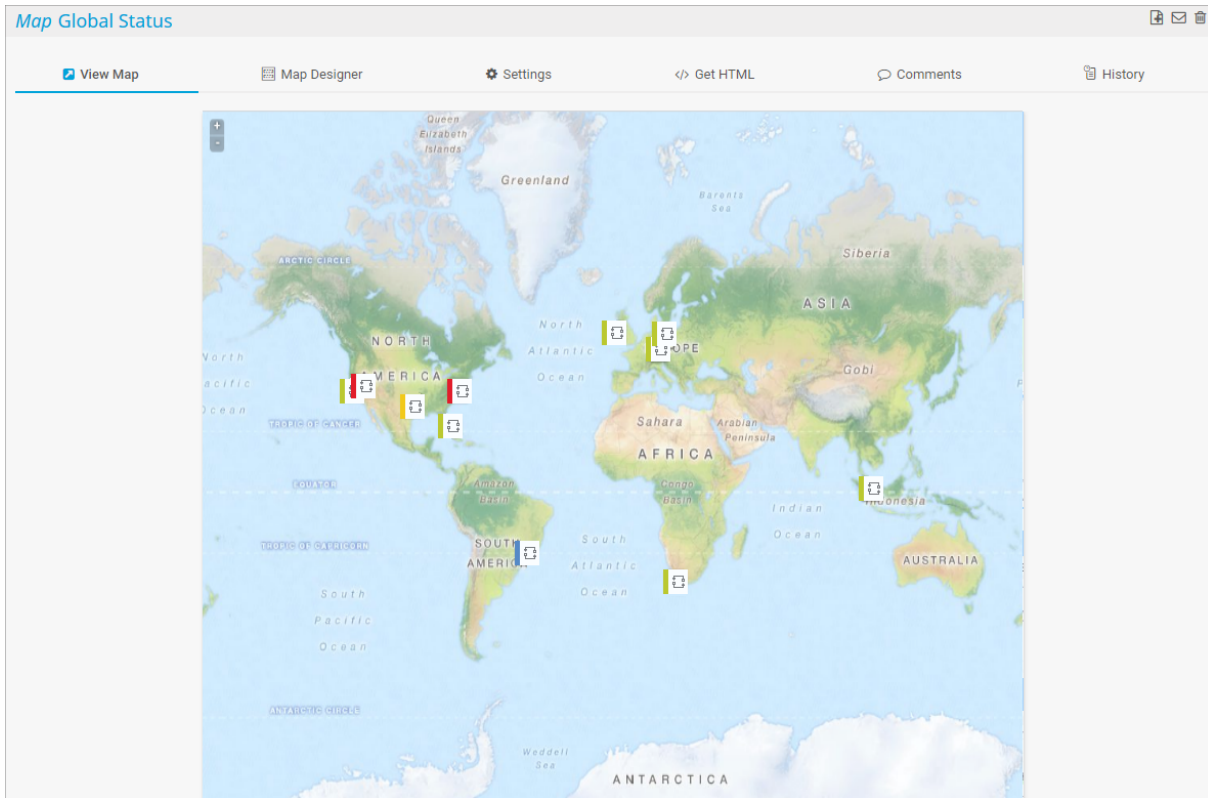


Advanced Procedures

- [Toplists](#)  4002
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8.7 Geo Maps

With the [Geo Maps](#) feature, you can visualize geographical information about monitored objects that are located at different sites worldwide on one page. You can display the location of probes, groups, and devices in a geographical map on the Overview [tab](#)^[4095] of an object or in [Maps](#)^[4095].



Global Status of a Network in a Geographical Map

Prerequisites

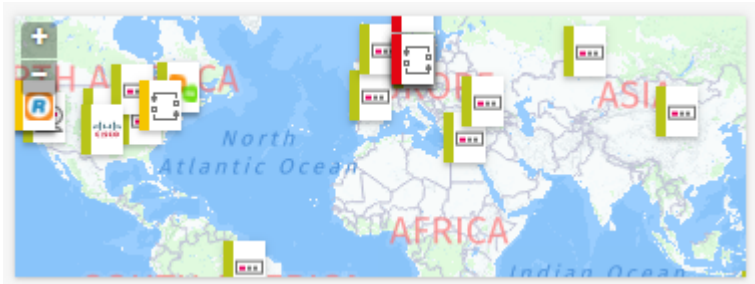
To use geographical maps and view them in the PRTG web interface, make sure that your PRTG core server has access to the internet to obtain map tiles. If a proxy is mandatory in your network, configure the according proxy settings.

- For more information, see section [Core & Probes](#)^[4203].
- For more information about map tile server domains, see the Knowledge Base: [Which domains and ports does the Geo Maps feature use?](#)

Geo Maps Concepts

The Geo Maps feature works as follows:

Concept	Description
Location information	<p>Enter Location information, for example, a city name, an address, or coordinates, for each probe, group, or device in the object's settings²²⁶¹. The PRTG core server resolves your location specification to global geographical coordinates with the help of an external map service provider. PRTG uses this information to query a geographical map that shows your objects.</p> <p>i You can use the first line of the location information field to label⁴⁰²⁷ your locations.</p>
Geo Maps settings	<p>Select a map service provider and the type of map that you want to view in the User Interface⁴¹⁷⁶ settings in section Geo Maps. You can also disable the integration of Geo Maps there.</p> <p>PRTG connects to the specified maps service provider to get map tiles. These map tiles provide the geographical background map. PRTG then marks defined locations with a corresponding location marker that consists of an object icon and the object's status color⁴⁰²⁹.</p>
Geographical maps display	<p>You can display geographical maps in the device tree on an object's Overview tab. PRTG automatically adjusts the zoom level of a geographical map so that it can show all locations of a selected object.</p>



Geographical Map on an Object's Overview Tab

You can also add geographical maps to Maps. To do so, open the [Map Designer](#)⁴¹⁰³ and click Geo Maps in the properties menu on the right.

Location Labels

You can define your own labels for locations of objects. To do so, enter the desired label in the [first line](#) of the Location field in an object's settings and provide the geo coordinates of the location in the [second line](#). The object appears with the defined label in geographical maps. It is also possible to define the same label for different locations as long as the coordinates differ from each other.

For example, enter the following information:

Big Apple
40.712778,-74.005833

Location

inherit from

Location (for Geo Maps) [?] Big Apple
40.712778,-74.005833

Location New York with Geo Coordinates and Label Big Apple

The location **New York** appears on the geographical map with the label **Big Apple**:

Geo Map for Root

Device	!!	!	✓	W	||
SSH	13		15		
avocado	12		2	1	
DNS/ADS	4		38		
Cluster Probe Device	3		14	1	
DHCP	3		15	1	
Exchange	2		3	2	
Gateway	2		2		
Probe Device	2		10	1	

Location New York with Label Big Apple

Status Color of Location Markers

The location markers use different colors to show the overall monitoring status at this location. In the following table, you can see all possible monitoring states sorted by priority:

Object Marker	Color	Location Status	Meaning
	Red	Down	At least one sensor at this location shows the Down status. Hover over the location marker to view the total number of alarms at this location.
	Light Pink	Down (Acknowledged)	At least one sensor at this location shows the Down status and a user acknowledged this status via the Acknowledge Alarm function. The Down states of all sensors at this location must be acknowledged. If at least one Down status is not acknowledged, this location shows the Down status.
	Yellow	Warning	At least one sensor at this location shows the Warning status. There is no sensor in the Down or Down (Acknowledged) status at this location.
	Orange	Unusual	At least one sensor at this location shows the Unusual status. There is no sensor in the Down, Down (Acknowledged), or Warning status at this location.
	Green	Up	All sensors at this location are in the Up status. There is no sensor in the Down, Down (Acknowledged), Warning, Paused, or Unusual status at this location.
	Blue	Paused	All sensors at this location show the Paused status. There is no sensor in the Down, Down (Acknowledged), Warning, Unusual, or Up status at this location.
	Grey	Unknown	All sensors at this location show the Unknown status. There is no sensor in the Down, Down (Acknowledged), Warning, Unusual, Paused, or Up status at this location.

For more information, see section [Sensor States](#) ¹⁹⁷.

More

■ KNOWLEDGE BASE

Which domains and ports does the Geo Maps feature use?

- <https://kb.paessler.com/en/topic/35823>

Which provider should I use for the Geo Maps feature of PRTG?

- <https://kb.paessler.com/en/topic/34603>

Why does my street not appear on the Geo Map shown in PRTG?

- <https://kb.paessler.com/en/topic/35653>

How do I get a Google Maps API key for use in PRTG?

- <https://kb.paessler.com/en/topic/32363>













Which limitations apply when using the Google Maps API in PRTG?

- <https://kb.paessler.com/en/topic/7913>

My geo maps are displayed without background. What can I do?

- <https://kb.paessler.com/en/topic/63608>

Advanced Procedures

- [Toplists](#)  4002
- [Move Objects](#)  4007
- [Clone Object](#)  4010
- [Multi-Edit](#)  4014
- [Create Device Template](#)  4019
- [Show Dependencies](#)  4023
- [Geo Maps](#)  4026
- [Notifications](#)  4031
- [Libraries](#)  4047
- [Reports](#)  4069
- [Maps](#)  4095
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8.8 Notifications

PRTG uses notifications to send you an alert, for example, whenever PRTG discovers a defined [sensor status](#)¹⁹⁷ or when channels breach specific limits. You can define an unlimited number of notifications using one or more [notification methods](#)⁴⁰³¹. PRTG sends notifications to a user's [notification contacts](#)⁴¹⁶³ that you can define for each user account.

▶ For more information, see the video tutorial: [Notifications](#)

Overview





PRTG sends a notification when a defined event triggers it. The following events can trigger notifications:

Event	Examples
Sensor status change	<ul style="list-style-type: none"> ▪ A sensor changes from the Up status to the Down or the Warning status because responses are slow. ▪ A sensor changes to the Unusual status.
Sensor value threshold breach	<ul style="list-style-type: none"> ▪ A sensor shows a request time that is higher than 1,000 ms for more than 30 minutes. ▪ Free disk space is below 10%.
Speed threshold breach	A traffic sensor shows more than 1 Mbit/s for more than 5 minutes.
Volume threshold breach	A traffic sensor shows more than 1 GB transferred in 24 hours.
Sensor value change	A specific value changes, for example, when the sensor monitors files on a hard disk drive.

Notification Methods

A notification can use one or more of the following notification methods:

- [Send Email](#)⁴¹³⁸
- [Add Entry to Event Log](#)⁴¹⁴¹
- [Send SMS/Pager Message](#)⁴¹⁴²
- [Execute HTTP Action](#)⁴¹⁴⁴
- [Execute Program](#)⁴¹⁴⁵
- [Send Syslog Message](#)⁴¹⁴⁷
- [Send SNMP Trap](#)⁴¹⁴⁸
- [Send Amazon Simple Notification Service Message](#)⁴¹⁵⁰
- [Assign Ticket](#)⁴¹⁵¹

- [Send Push Notification](#) 
 - [Send Microsoft Teams Message](#) 
 - [Send Slack Message](#) 
 - [Send MQTT Publish Notification](#)
- For more information, see section [Notification Templates](#) .

Placeholders






Notifications can contain valuable sensor information that you can define via placeholders, for example:


- Last error message
- Last successful or failed request
- Total downtime
- Total uptime
- Recent sensor history
- A direct link to the PRTG web interface



■ For available placeholders, see section [List of Placeholders for Notifications](#) .

Notifications Setup

You have to take the following four steps to set up and use notifications:

1. Check and set up the [notification delivery](#)  settings if you use PRTG on premises. These settings define how PRTG sends messages.
2. Check and set up [notification contacts](#)  for the user accounts. These contacts define the recipients to which PRTG sends notifications.
3. Check and set up several [notification templates](#) . These templates define the notification methods and their content.
 - ❗ You can also check or edit notification templates via the Notification Triggers tab. For more information, see section [Notification Triggers Settings](#) .
4. Check and set up [notification triggers settings](#)  for objects. These triggers define when PRTG sends notifications.

❗ Usually, there are three successive attempts to deliver a notification. If all of these attempts fail, the notification is lost. To never miss a notification, we recommend that you always set up at least two notifications with different notification methods for a notification trigger, for example, one email notification and one SMS notification. If delivery via email fails, PRTG can still notify you via smartphone as a fallback. For example, use the latency setting of a [state trigger](#)  to choose a notification with a different notification method than in the first trigger condition, or set up a second trigger with a different notification method for the corresponding object.

■ See sections [Notifications Based on Sensor Limits Step by Step](#)  and [Notifications Based on Libraries Step by Step](#)  for step-by-step guides that describe potential notification setups.

■ Custom notification scripts are also available in the [PRTG Sensor Hub](#).

More

KNOWLEDGE BASE

Notifications based on priority or favorites

- <https://kb.paessler.com/en/topic/31243>

VIDEO TUTORIAL

Notifications










- <https://www.paessler.com/learn/videos/notifications>

PAESSLER WEBSITE


You can find custom notification scripts in the PRTG Sensor Hub

- <https://www.paessler.com/sensor-hub>

Advanced Procedures

- [Toplists](#)  4002
- [Move Objects](#)  4007
- [Clone Object](#)  4010
- [Multi-Edit](#)  4014
- [Create Device Template](#)  4019
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- [Maps](#)  4095
- [Setup](#)  4121

8.8.1 Notifications Based on Sensor Limits Step by Step

 This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

This section gives you an example of how to set up a notification for exceeded disk free limits. Take the following steps to set up notifications based on limits:

- [Step 1](#)⁴⁰³⁴: Provide necessary information about the delivery of notifications (Simple Mail Transfer Protocol (SMTP) and SMS).
- [Step 2](#)⁴⁰³⁴: Specify the recipients of notifications for each user account.
- [Step 3](#)⁴⁰³⁴: Specify the notification methods and content to create the actual notifications.
- [Step 4](#)⁴⁰³⁶: Define limits that change a sensor's status (this is not necessary for every kind of notification).
- [Step 5](#)⁴⁰⁴⁰: Add suitable triggers to objects that trigger notifications if there is an issue in your network.
- [Step 6](#)⁴⁰⁴¹: Test if PRTG correctly triggers and delivers the created notifications.

Step 1: Set up Notification Delivery Settings (PRTG on premises)

Before you can create actual notifications, you have to define how PRTG delivers the notifications to your email account, mobile phone, or pager. To do so, select Setup | System Administration | Notification Delivery from the [main menu bar](#)²⁸⁹. Specify the mechanism for SMTP delivery, the sender email address and name, as well as the HELO ident. For SMS delivery, select your service provider and enter the corresponding credentials.

 For more information, see section [Notification Delivery](#)⁴¹⁹⁴.

Step 2: Set up Notification Contacts

Create notification contacts to define how you want to receive notifications. Recipients can be email addresses, phone numbers (only available for PRTG on premises), or push devices (Android or iOS devices with the corresponding [PRTG app](#)⁴²⁷⁶).

You can define as many recipients as you want for each user account. By default, the recipient [Primary Email Address](#) is available. This is the email address that you provide in your [account settings](#)⁴¹²³.

 For more information, see section [Notification Contacts](#)⁴¹⁶³.

Step 3: Specify Notification Methods and Content

To get an informative message when a disk is running out of free space, create a corresponding notification:

1. Select Setup | Account Settings | Notification Templates from the main menu bar.
2. Hover over  and click Add Notification Template.

3. Enter a meaningful name for the notification template, for example, [Disk Free Limit Notification](#).
i If you want to trigger this notification on a global level, for example for a probe or group, so that it does not only apply to breached disk free limits, a general name might be more suitable (like the predefined notification [Email to Admin](#), for example).
4. You can optionally create a Schedule to activate notifications only at specific times, for example, only on weekdays. In section Notification Summarization, you can choose from various options to avoid message floods. Furthermore, you can define the User Group Access to this notification.
5. Select a notification method. In this case, enable next to Send Email.

Send Email

Sender i Default
 Custom

The three recipient settings below (user, user group, email address) work independently. So every contact and address selected by any of these settings will receive the notification.

Send to User i None v

Send to User Group i None v

Send to Email Address i

Subject i [%sitename] %device %name %status %down (%message)

Format i HTML
 Text
 Text with custom content

Priority i highest v

Create an Email Notification

■ You can select any other notification method, of course. For more information, see section [Notification Templates](#) 4138.

6. Specify who receives a notification, for example, select a specific user and PRTG sends the notification to all notification contacts that you defined for this user account in [step 2](#) 4034.
7. Enter the Subject of the email notification or use the predefined placeholders.
■ For available placeholders, see section [List of Placeholders for Notifications](#) 4062.
8. Specify the Format and the Priority of the notification.
9. Click Create. PRTG opens the Notifications Templates tab.

You can now use the new notification for every trigger on every object in your device tree.

Step 4: Define Limits

Before you create triggers that initiate notifications, you need to specify the limits that you want to apply to your disks. For example, if you want to get a notification when a disk has exceeded 80% of its capacity, set the sensor to the Warning status if it reaches this limit. You have the following options to set limits for disk free sensors:

- [Step 4.1](#)⁴⁰³⁶: Set limits that are checked against all disks in the settings of multi-drive sensors such as the [WMI Free Disk Space \(Multi Disk\)](#)³⁶⁸⁵ sensor, the [SNMP Linux Disk Free](#)²⁸¹¹ sensor, or the [SSH Disk Free](#)³¹⁵⁴ sensor.
- [Step 4.2](#)⁴⁰³⁶: Enable limits in the [channel settings](#)³⁹⁷⁷ of single sensors.

i You can also use the [multi-edit](#)⁴⁰¹⁴ functionality to set limits for multiple sensors at once.

Step 4.1: Define Limits in Sensor Settings (Multi-Disk Free Sensors Only)

You can set limits for sensors that monitor multiple disks directly via the sensor's Settings tab. Multi-edit for sensors is also possible.

Set Limits Checked For ALL Disks Use the particular channel settings to set separate error limits or warning limits for each disk.

Percentage Limit Check **i** Only use the limits in the settings of the percentage channels
 Use the limits of both the sensor and the channel settings

Upper Error Limit **i**

Upper Warning Limit **i**

Lower Warning Limit **i**

Lower Error Limit **i**

Size Limit Check **i** Only use the limits in the settings of the byte size channels
 Use the limits of both the sensor and the channel settings

Alarm on Missing/Removed Disk **i** Deactivate alarm (default)
 Activate alarm

Set Limits for All Disks in the Sensor Settings

1. Open the settings of the selected sensor and go to section Set Limits Checked For ALL Disks.
2. Enable Use the limits of both the sensor and the channel settings.
3. In the field Lower Warning Limit, enter the percentage that suits your needs. In our example, this is **20**. This limit applies to all channels of the selected sensors that represent disks.
 - i** Alternatively, you can use bytes to define a limit. However, we recommend that you use percentage values for more flexibility.
4. Click Save to save your settings.

Step 4.2: Define Limits in Channel Settings

To set specific limits for single disks, use the sensors' channel settings. You can open the channel settings via  below the channel gauge or via  in the channels table.

Edit Channel "Free Space C:"

Name ⓘ
Free Space [#disk]

ID ⓘ
5

Limits ⓘ
 Disable limits
 Enable alerting based on limits

Upper Error Limit (%) ⓘ

Upper Warning Limit (%) ⓘ

Lower Warning Limit (%) ⓘ
20

Lower Error Limit (%) ⓘ

Error Limit Message ⓘ

Warning Limit Message ⓘ

Graph Rendering ⓘ
 Show in graphs
 Hide from graphs

Table Rendering ⓘ
 Show in tables
 Hide from tables

Line Color ⓘ

Apply OK Cancel

Set Limits in the Channel Settings

1. Under Limits, select Enable alerting based on limits.
2. Enter the desired Lower Warning Limit. This limit only applies to the respective channel.
3. Click OK to save your settings.

i If you define channel limits when you also use the sensor's limit setting on the sensor's Settings tab, PRTG takes the first limit that applies. This way, you can individually define harder limits for single disks in a multi-disk sensor. All defined limits are valid.

You **have** to take the approach via channel settings for sensors that monitor only one (logical) disk, for example, the [SNMP Disk Free sensor](#)^[258]. For these sensors, you can use multi-edit if you want to automatically apply the same limits to each of these sensors.

Editing 3 Objects X

Edit Channel

Limits ⓘ
 Disable limits
 Enable alerting based on limits

Upper Error Limit (%) ⓘ

Upper Warning Limit (%) ⓘ

Lower Warning Limit (%) ⓘ
20

Lower Error Limit (%) ⓘ

Error Limit Message ⓘ

Warning Limit Message ⓘ

Graph Rendering ⓘ
 Show in Graphs
 Hide from Graphs


Table Rendering ⓘ
 Show in Tables
 Hide from Tables

Line Color ⓘ
 Automatic
 Manual

Line Width ⓘ

[Cancel](#)

Set Limits for Channels in Multi-Edit Mode

1. To see all SNMP Disk Free sensors, filter for the sensor type. Select Sensors | By Type | SNMP Disk Free from the main menu bar.
2. Enable the check boxes next to the sensors for which you want to set a limit.
3. Click .
4. Select the Channel Settings tab.
5. Select the channel to which you want to add a limit. In this case, select the channel [Free Space](#).

6. Enable the check box next to Limits.
7. Select Enable alerting based on limits.
8. Enter the desired Lower Warning Limit.
9. Click OK to save your settings.

The new limit applies to all Free Space channels of all selected sensors.

Absolute Values and Delta Values for Limits

The value type that you need to configure for limits depends on the type of data that the channel delivers:

Value Type	Description
Absolute values	For channels that measure absolute values, for example, for free disk space, you have to set limits with absolute values like 20 .
Delta values	For channels that measure delta values, that is, measurements per second (x.xx/sec), you have to set delta values according to the formula number of errors/scanning interval in seconds .

For example, you have an [SNMP Traffic sensor](#) 3094 and want to receive an alert when the sensor reports errors:

- Set the sensor to the Warning status when [1](#) error occurs.
- Set the sensor to the Down status when [30](#) errors occur.

The following screenshot shows how to configure the limits for delta channels. You could set the following limits for the channel Errors in with a standard scanning interval of 60 seconds:

Edit Channel "Errors in"

Name ⓘ
Errors in

ID ⓘ
10

Limits ⓘ
 Disable limits
 Enable alerting based on limits

Upper Error Limit (#/s) ⓘ
0.5

Upper Warning Limit (#/s) ⓘ
0.1

Lower Warning Limit (#/s) ⓘ

Lower Error Limit (#/s) ⓘ

Error Limit Message ⓘ

Warning Limit Message ⓘ

Graph Rendering ⓘ
 Show in Graphs
 Hide from Graphs

Table Rendering ⓘ
 Show in Tables

Apply
Ok
Cancel

Setting Channel Limits with Delta Values

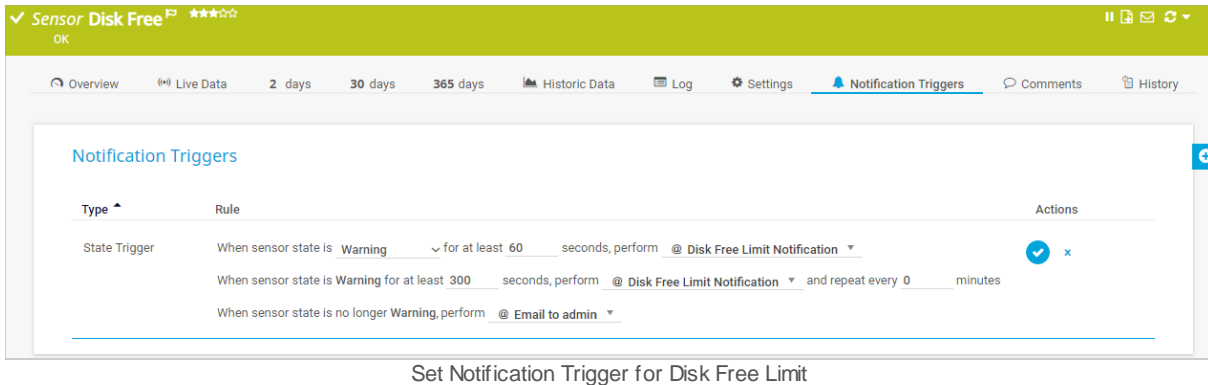
Because this channel uses per second (delta) measurements, the sensor reports a single error that occurs over a standard 60-second scanning interval as 0.016 # per second. So the warning limit for one single error within a scanning interval is 0.1 (errors/sec). To get an alert when there are 30 errors within a scanning interval, the limit needs to be 0.5 (errors/sec).

ⓘ If no new errors occur in the next scanning interval, the sensor shows the Up status again. To ensure that you do not miss any notifications for this sensor, set a notification trigger with 0 seconds.

Step 5: Set up the Notification Trigger

You specified limits to define when a sensor shows the Warning (or the Down) status. Now you can create suitable notification triggers. The notification trigger for this example is the [state trigger](#)³⁰⁸⁸.

For more information about available triggers, see section [Notification Triggers Settings](#) ³⁹⁸⁷.



1. Go to the sensor's Notification Triggers tab.
2. Hover over and select Add State Trigger from the menu.
3. Set the notification trigger to When sensor state is **Warning** and select the notification template that you created before from the dropdown list.
4. Adjust the other notification triggers settings to your needs.
5. Click to save the notification trigger.

Now you immediately receive a notification when the capacity of one of your disks falls below the defined limit, in this case 20% of free disk space.

Step 6: Test the Notification

Finally, test the notification that you created. You can immediately trigger a notification for test purposes:


1. From the main menu bar, select Setup | Account Settings | Notification Templates.
2. Click next to the respective notification template to send a test notification.
3. Check if the notification was correctly triggered and delivered based on the notification contacts and the notification method that you defined before. If you do not get a notification or if a defined action is not executed, check the notification logs. To do so, select Logs | System Events | Notification Related from the main menu bar. Look for the triggered notification in the table list and check that you correctly set up the notification delivery.

For more information, see section [Logs](#) ²³⁷.

Notifications

- [Notifications Based on Sensor Limits Step by Step](#) ⁴⁰⁴²
- [Notifications Based on Libraries Step by Step](#) ⁴⁰⁴²

8.8.2 Notifications Based on Libraries Step by Step

 This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

This section gives you an example of how you can reorganize the objects from your device tree in a [library](#)⁴⁰⁴⁷ to create a customized view of your CPU sensors. This way, you can monitor an entire section of your network with a single set of [notifications](#)⁴⁰³¹.

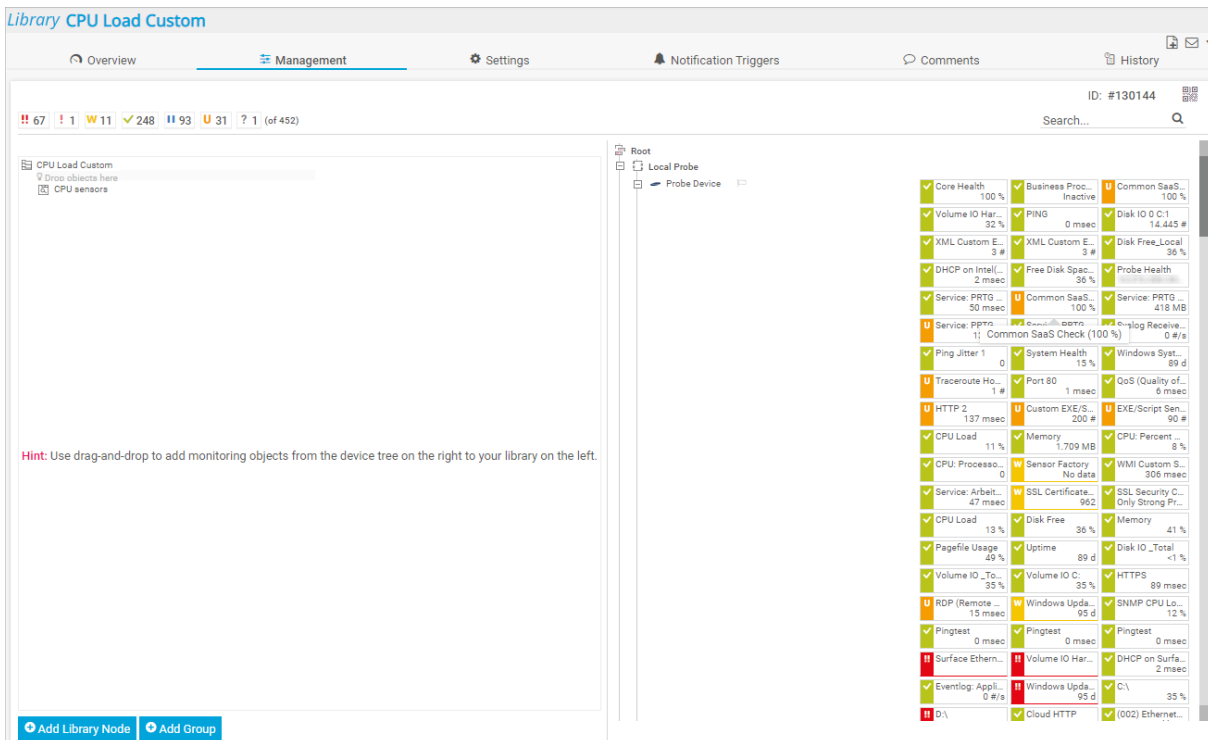
Take the following steps to set up notifications based on libraries:

- [Step 1: Add a New Library](#)⁴⁰⁴²
- [Step 2: Add Sensors to the Library](#)⁴⁰⁴³
- [Step 3: Define Notification Triggers](#)⁴⁰⁴⁵
- [Step 4: Test the Notification](#)⁴⁰⁴⁵
- [Step 5: Troubleshooting](#)

Step 1: Add a New Library

First, create a new library:

1. Hover over Libraries in the [main menu bar](#)²⁸¹ and select Add Library.
2. Give the library a meaningful name, for example [CPU Load Custom](#), and define a security context⁴⁰⁵⁹ for it. You can also add some tags¹⁴⁵ for organizational purposes.
3. Optionally, assign access rights to your predefined user groups to grant or restrict permissions to view the library.
4. Click Create to create the new library. The [Management](#)⁴⁰⁵⁶ tab of the library opens.



New , Empty Library

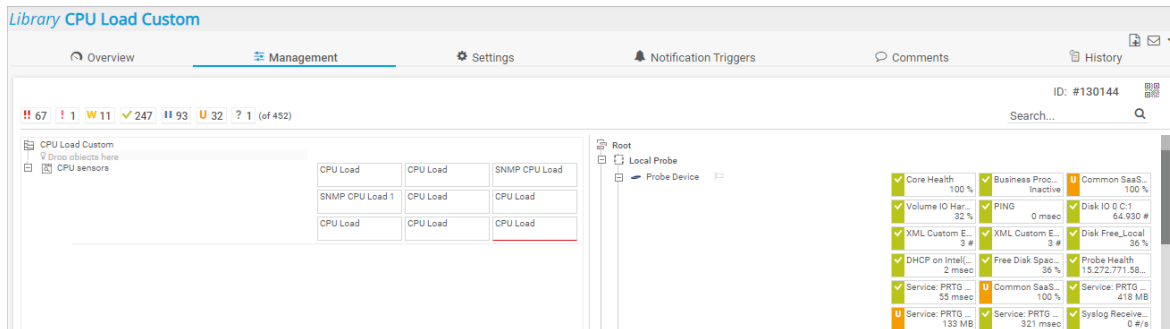
For more information, see section [Libraries and Node Settings](#)

Step 2: Add Sensors to the Library

The new library is empty in the beginning, so to add your CPU sensors to it, you need to take the following steps:

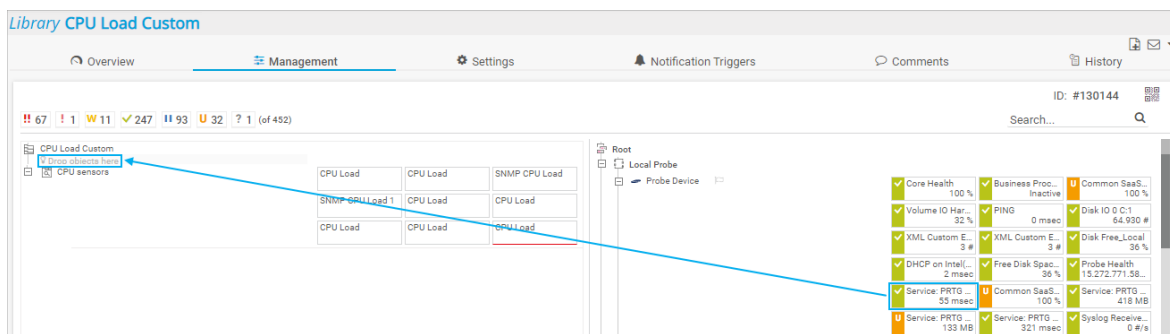
1. Click Add Library Node in the lower-left corner.
2. Give the library node a meaningful name, for example **CPU sensors**, and define a security context for it. You can also add some tags¹⁴⁵ for organization purposes.
3. Select a linked object from your device tree that the library node references. The default object is the root group.
4. For the Library Node View setting, select Show a collection of filtered sensors.
5. To filter the sensors further, select Show only sensors with specific tags under Filter by Tag.

- Enter one or more tags, for example `cpu`, to include your CPU sensors in the library node.
 - i** Libraries are dynamic. When you add or remove sensors from your device tree that have the tag that you specified, the library automatically updates the displayed sensors.



Library Node with Sensors Filtered by Tag

- You can also manually add sensors to the library via drag-and-drop.

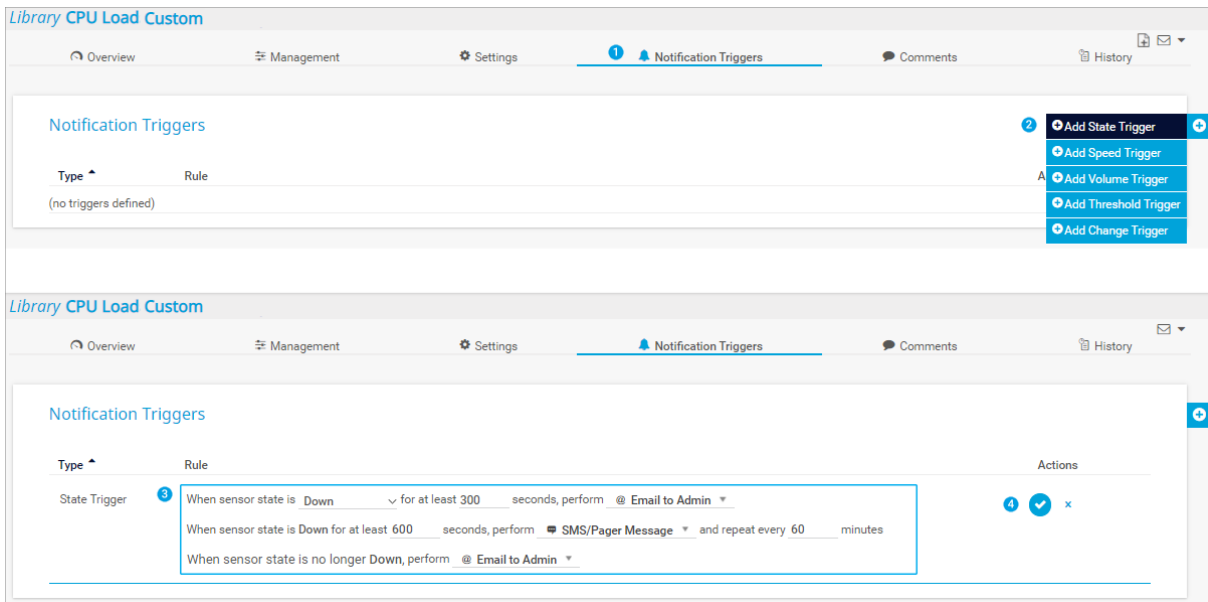


Manually Add Sensors to the Library



For more information, see section [Libraries and Node Settings](#) ⁴⁰⁵⁹.


Step 3: Define Notification Triggers

Add a [state trigger](#) ³⁹⁸⁸ to your library so that you are notified when a CPU has been running at more than 90% load for more than 5 minutes.



Set a Notification Trigger for a Library



1. Click the Notification Triggers tab (1).
2. Hover over  and select Add State Trigger (2).
3. Enter the notification triggers settings (3). These include initial parameters like the sensor status and the duration of the sensor status that triggers the notification, escalation parameters if the sensor status persists, and an action for when the trigger parameters no longer apply.
4. Click  to save the notification trigger (4).

 You can set up multiple triggers of the same type so that you can define increasingly serious notifications that also use different [notification methods](#)⁴¹³⁸. For system-critical network components, we recommend that you always define two different notification triggers with two different notification methods, for example, an email and an SMS.

 For more information, see sections [Notification Triggers Settings](#)³⁹⁸⁷ and [Notification Templates](#)⁴¹³¹.

Step 4: Test the Notification

To make sure that your notification setup works as intended, you can trigger test notifications:




1. Go to Setup | Account Settings | Notification Templates.
2. Enable the check box next to a notification and click , or click  next to the notification status.
3. Check if the test email and/or SMS have arrived.

 In test notification messages, PRTG does not resolve any placeholders.

Step 5: Troubleshooting



If a test notification does not arrive as intended, take the following steps:

1. Select Setup | Account Settings | Notification Templates from the main menu bar.

2. Go to the notification templates that you assigned to the notification triggers in the library and check the following:
 - The notifications are in the Active status.
 - The notifications have a [schedule](#)  that does not conflict with the library you set up.
 - The summarization method collects alarms for a specific time period. Also consider the Time Span for Summarizing Messages (in Minutes) value.
3. Select the Notification Contacts tab and check that the email addresses or phone numbers that you specified as [notification contacts](#)  for each user account are correct
4. Check the [notification delivery settings](#)  under Setup | System Administration | Notification Delivery.

 This only applies to PRTG on premises installations, not to PRTG Hosted Monitor instances.

5. Review the [logs](#)  for system events of the type **Notification** and the respective notification's name.

 Sensors can simulate an error. Go to the library's Overview [tab](#) , right-click a sensor, and select Simulate Error Status from the context menu. You see that the sensor status changes to the Down status and sends the following message: **The sensor shows a Down status because of a simulated error. To resolve this issue, right-click the sensor and select Resume from the context menu. (code: PE034).** This also triggers a notification for test purposes.

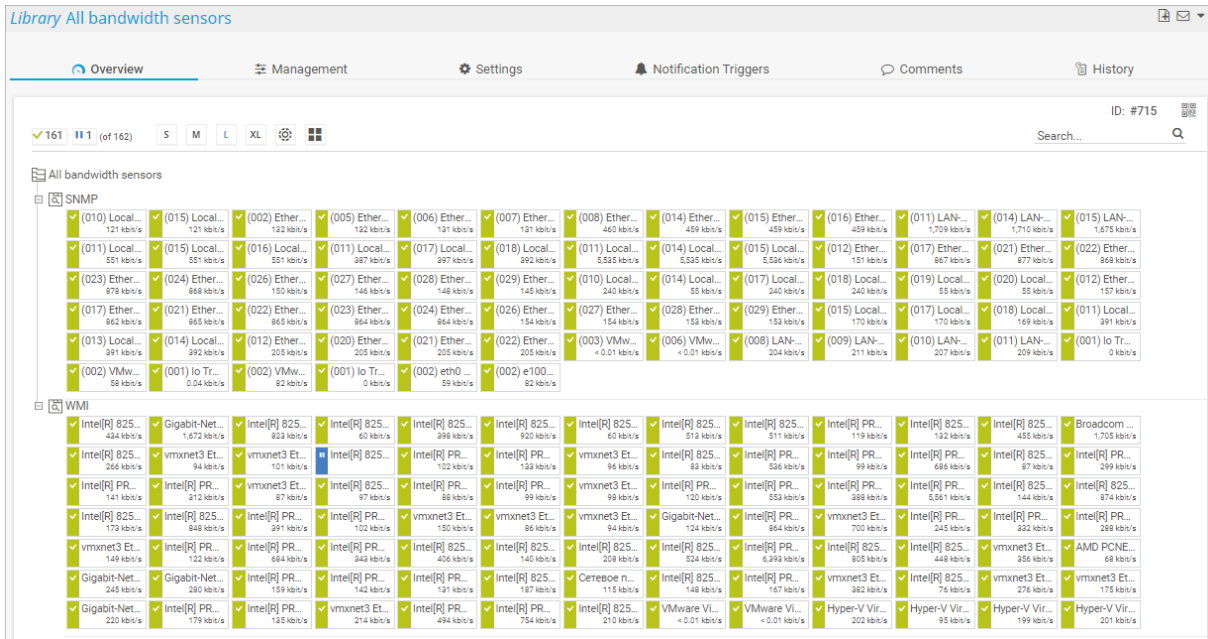
Notifications

- [Notifications Based on Sensor Limits Step by Step](#) 
- [Notifications Based on Libraries Step by Step](#) 

8.9 Libraries

With the **Libraries** feature, you can create additional, customized views of your device tree.

▶ For more information, see the video tutorial: [Libraries in PRTG](#)



Example of a Library

In this section:

- [Introduction](#) ⁴⁰⁴⁷
- [Preconfigured Libraries](#) ⁴⁰⁴⁸
- [Libraries Menu](#) ⁴⁰⁴⁸
- [Libraries List](#) ⁴⁰⁴⁹
- [Working with Libraries](#)

Introduction

With libraries, you can create custom device tree views of your network's status and monitoring data. PRTG updates these views in the same interval as your device tree. The library views display the same monitoring data, but arranged the way you want, for example, based on target groups or a specific use case. For example, you can create a library that contains an overview of all your bandwidth monitoring sensors, regardless of the device that they run on.

The Libraries feature includes the following options:

- Create libraries that contain library nodes with objects from your entire configuration.
- Show data from different probes in one library.
- Show different branches of your device tree right next to each other.
- Arrange sensors in a tree-like view regardless of the device that they run on.

- Filter your entire device tree or parts of it by sensor type, status, or tag, and only show matching sensors.

Preconfigured Libraries

PRTG provides several preconfigured libraries that you can also edit or delete.

- ① Preconfigured libraries are only visible to administrators.

Object	Security Context	
All bandwidth sensors	PRTG System Administrator	<input type="checkbox"/>
All CPU load sensors	PRTG System Administrator	<input type="checkbox"/>
All diskspace sensors	PRTG System Administrator	<input type="checkbox"/>
All memory sensors	PRTG System Administrator	<input type="checkbox"/>
All sensors grouped by state	PRTG System Administrator	<input type="checkbox"/>
All VMware sensors	PRTG System Administrator	<input type="checkbox"/>
Sensors grouped by priority	PRTG System Administrator	<input type="checkbox"/>

List of Preconfigured Libraries

The following libraries are automatically created when you install PRTG for the first time. Some of these libraries are initially empty, but as you add more sensors, PRTG automatically fills them according to the filter settings defined for the library nodes:

- All bandwidth sensors
- All CPU load sensors
- All diskspace sensors
- All memory sensors
- All sensors grouped by state
- All VMware sensors
- Sensors grouped by priority

- ① Sensors that you add to libraries do not count against the maximum number of sensors of your license.



Libraries Menu

Click Libraries in the [main menu bar](#) ²⁸¹ to open an overview list of all libraries. Hover over Libraries to show other options.

Option	Description
All	Open the Libraries list where you can view or add custom device tree views of your network status and monitoring data.
Add Library	Open a dialog to create ⁴⁰⁵¹ a new library.
Select Library	Open a library. Hover over Select Library to show more options. Follow the alphabetical menu path that is specific to your setup to view your libraries. Click a library to open it.

Libraries List

In the All view, you see a list of all libraries. Enable the check box next to a library and use the quick action buttons to perform the following actions:

- Used by (clone⁴⁰¹⁰ of this library.
- Delete (settings⁴⁰⁵⁹ of the library and its library nodes.

To add a new library, hover over  and select Add Library from the menu.

 See also sections [Working with Table Lists](#)²⁴⁶ and [Multi-Edit](#)⁴⁰¹⁴.

Working with Libraries

For detailed information on how to create and edit libraries, see the following sections.

- [Libraries Step by Step](#)⁴⁰⁵¹
- [Library Management](#)⁴⁰⁵⁶
- [Libraries and Node Settings](#)⁴⁰⁵⁹
- [Library Context Menus](#)⁴⁰⁶⁶

More











 VIDEO TUTORIAL

Libraries in PRTG

- <https://www.paessler.com/learn/videos/libraries>

Advanced Procedures

- [Toplists](#)⁴⁰⁰²
- [Move Objects](#)⁴⁰⁰⁷

- [Clone Object](#)  4010
- [Multi-Edit](#)  4014
- [Create Device Template](#)  4019
- [Show Dependencies](#)  4023
- [Geo Maps](#)  4026
- [Notifications](#)  4031
- [Libraries](#)  4047
- [Reports](#)  4069
- [Maps](#)  4095
- [Setup](#)  4121

8.9.1 Libraries Step by Step


i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

To create and review a new library, take the following steps:

- [Step 1: Add a Library](#) ⁴⁰⁵¹
- [Step 2: Add Library Nodes](#) ⁴⁰⁵²
- [Step 3: Set Library Node Display Settings](#) ⁴⁰⁵³
- [Step 4: View the Library](#)

Step 1: Add a Library

First, you need to create a new library.

1. Click Libraries in the [main menu bar](#) ²⁸¹ to show an overview list of all libraries.
2. Hover over  and select Add Library from the menu to open the Add Library dialog.
3. Enter a meaningful Library Node Name.
4. Optionally, define the Security Context, enter Tags, and set the User Group Access for the new library.
5. Click Create.

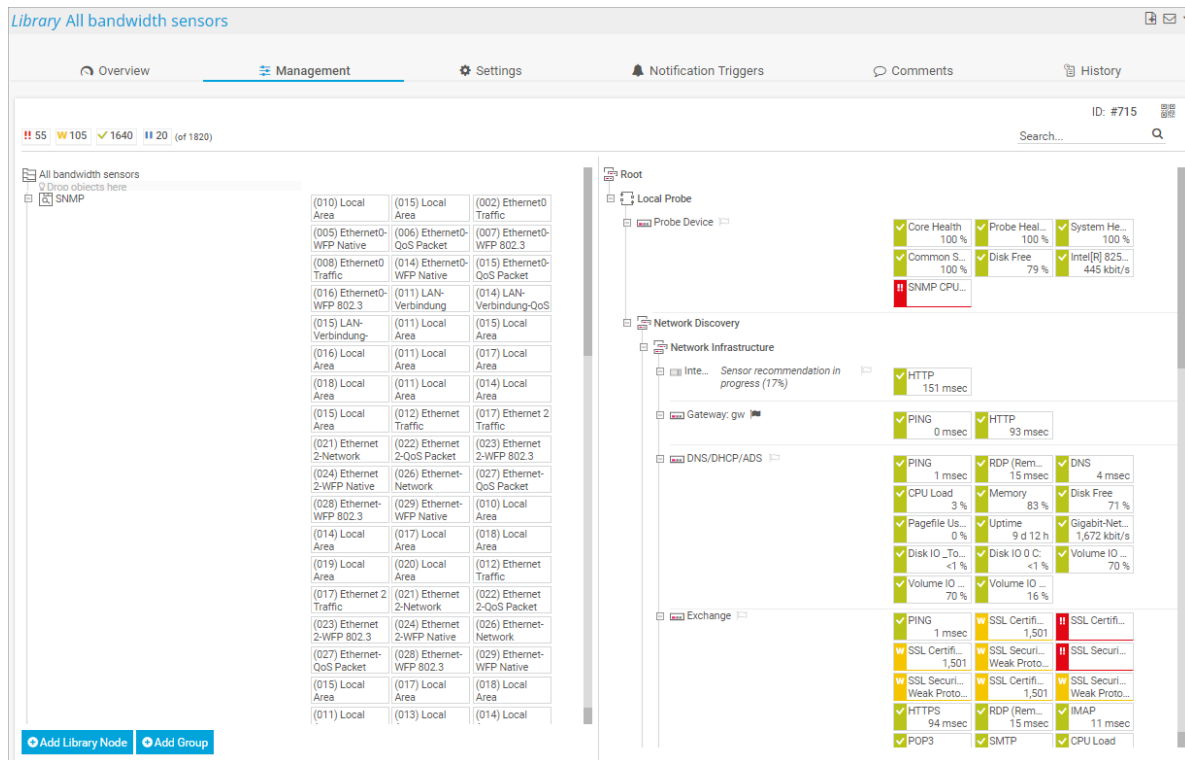
 For more information, see section [Libraries and Node Settings](#) ⁴⁰⁵⁹.

i When a user with administrative rights creates a new object, only other users with administrative rights can view or edit the new object by default. When a read/write user creates a new object, all members of the read/write user's primary group can view and edit the new object as well. This behavior applies to [libraries](#) ⁴⁰⁴⁷, [maps](#) ⁴⁰⁹⁵, [reports](#) ⁴⁰⁶⁹, [notification templates](#) ⁴¹³¹, and [schedules](#) ⁴¹⁶⁹. For more information, see section [Access Rights Management](#) ¹⁵⁵.

Step 2: Add Library Nodes

Because the new library is empty in the beginning, you need to add library nodes to fill the library with content.

1. Click the new library in the Libraries list. The library's Overview tab opens.
2. Click the Management tab. You see a split screen:
 - On the left side, you can see your library. If you create a new library, it is empty in the beginning.
 - On the right side, you see your device tree.



Bandwidth Library in Management Mode

3. From the device tree on the right side, drag objects and drop them on the library on the left side. Each dropped object is immediately added as a new library node. Repeat this procedure as often as you wish until you have added all desired items to the library.

i Library nodes can contain up to 1,000 sensors. However, if you add single sensors to the library via the Management tab, there can only be one sensor in one library node.

4. Click Add Library Node or Add Group in the bottom-left corner of the split screen to create nested library nodes.
5. Drag and drop library nodes to change their position. If you want to change the monitoring object that is associated with a library node, you can change the Linked Object in the library node's settings.

For more information, see section [Libraries and Node Settings](#).

Step 3: Set Library Node Display Settings

After you set up your library and filled it with content, you can edit the library nodes' display settings.

Right-click the name of a library node and select Edit | Settings from the [context menu](#) to change the Library Node Display Settings. In the dialog that appears, you can change the name of the library and its tags, as well as the linked object, the library node view, and filters. These settings are available for each library node.

The screenshot shows a dialog box titled "Edit Object NetFlow" with a close button (X) in the top right corner. The dialog is divided into two main sections:

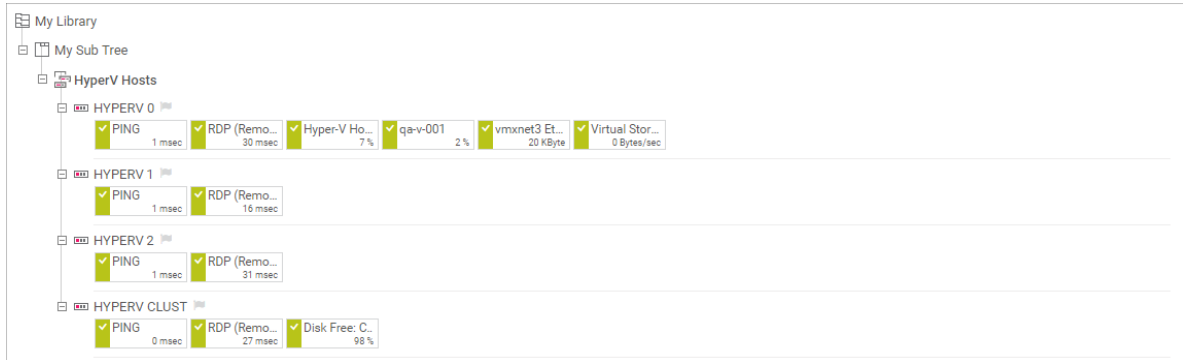
- Basic Library Node Settings:**
 - Library Node Name:** A text input field containing "NetFlow".
 - Security Context:** A dropdown menu currently showing "PRTG System Administrator".
 - Tags:** A list of tags with "bandwidthsensor" and "netflow" selected, each with an 'x' to remove it, and a "+" button to add more.
- Library Node Display Settings:**
 - Linked Object:** A search field containing "Root" with a magnifying glass icon on the right.
 - Library Node View:** Two radio button options: "Show a subtree of the device tree" (unselected) and "Show a collection of filtered sensors" (selected).
 - Filter By Type:** Two radio button options: "Show all sensor types" (unselected) and "Show only specific sensor types" (selected).
 - Select Sensor Types:** A search field with "Search..." and a magnifying glass icon. Below it, a list of sensor types with checkboxes: "Name" (unchecked) and "Active Directory Replication E..." (unchecked).

At the bottom right of the dialog, there are "Cancel" and "OK" buttons.

Edit Library Node Display Settings

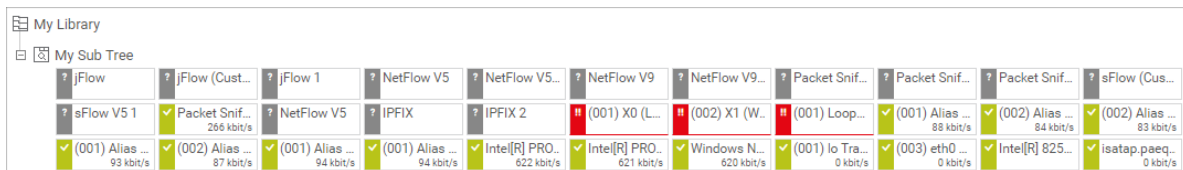
You can either show the Linked Object as a subtree of your device tree including probes, groups, and devices, or you can view all sensors underneath the Linked Object.

- When you select Show a subtree of the device tree, the library node called **My Sub Tree**, for example, looks like a branch in your device tree.



Library with One Node that Shows a Branch of the Device Tree

- When you select Show only specific sensor types, PRTG only shows the sensors that are underneath the Linked Object in the device tree without probes, groups, and devices. You can additionally filter for certain sensor types, states, and tags. PRTG then only shows matching sensors. In the example screenshot, you can see the library node **My Sub Tree** where only bandwidth sensors are shown.



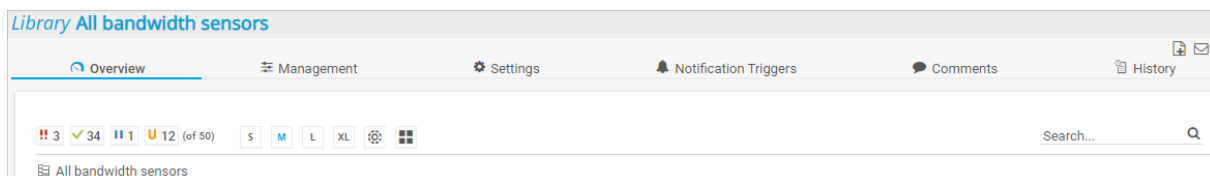
Library with One Node that Only Shows a Collection of Bandwidth Sensors

For more information, see section [Libraries and Node Settings](#) ⁴⁰⁵⁹.

Step 4: View the Library

Click the Overview tab to see the final appearance of your library.

- It depends on the group access rights defined for the library and the logged in user account if the library is visible to users other than administrators.



View Library

You can take the following actions:

- Hover over an object to view a [hover popup](#) ²⁷⁵ with recent monitoring and object status data.
- Use the [sensor status bar](#) ¹⁸⁷ to select which sensors you want to display in the library. You can hide sensors that are in a certain status by clicking the respective status icon. To show the sensors again, click the status icon again.
 - This setting is reset the next time you open the library.

- Use the different [viewing options](#)¹⁸⁷ to change the size of the library display.
- Use the [search box](#)¹⁸⁷ to search the library for a string in object names. PRTG shows matching objects in full color and grays out all other objects while the filter is active.
- Click an object in the library, for example, a sensor, to show more detailed information about the object.
 - ❶ If a user does not have enough permissions to view the detailed information, for example, because they are a member of a user group that does not have the respective group access rights, they get an error message.
- Right-click a library or a library node to open its context menu where further options are available.

 You can also set up notifications for entire libraries, see section [Notifications Based on Libraries Step by Step](#)⁴⁰⁴².

More

 VIDEO TUTORIAL

Libraries in PRTG

- <https://www.paessler.com/learn/videos/libraries>

Libraries

- [Libraries Step by Step](#)⁴⁰⁵¹
- [Library Management](#)⁴⁰⁵⁶
- [Libraries and Node Settings](#)⁴⁰⁵⁹
- [Library Context Menus](#)⁴⁰⁶⁶

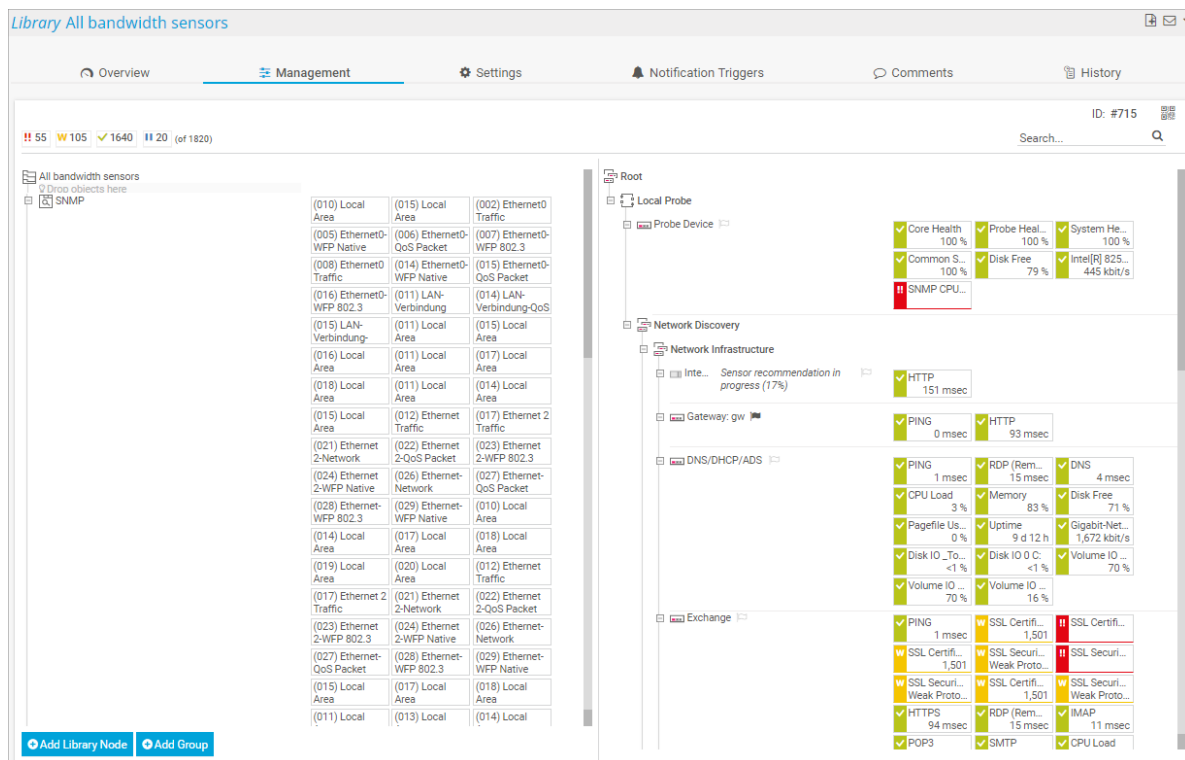
8.9.2 Library Management

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

You can manage your libraries by adding and editing library nodes and by defining which objects you want to see on a library node.

Click the Management tab. You see a split screen:

- On the left side, you can see your library. If you create a new library, it is empty in the beginning.
- On the right side, you see your device tree.



Bandwidth Library in Management Mode

Add and Change Library Nodes

From the device tree on the right side, drag objects and drop them on the library on the left side. Each dropped object is immediately added as a new library node. Repeat this procedure as often as you wish until you have added all desired items to the library.

i Library nodes can contain up to 1,000 sensors. However, if you add single sensors to the library via the Management tab, there can only be one sensor in one library node.

Click Add Library Node or Add Group in the bottom-left corner of the split screen to create nested library nodes.

Drag and drop library nodes to change their position. If you want to change the monitoring object that is associated with a library node, you can change the Linked Object in the library node's settings.

Set Library Node Display Settings

Right-click the name of a library node and select Edit | Settings from the [context menu](#) to change the Library Node Display Settings. In the dialog that appears, you can change the name of the library and its tags, as well as the linked object, the library node view, and filters. These settings are available for each library node.

The screenshot shows a dialog box titled "Edit Object NetFlow" with a close button (X) in the top right corner. The dialog is divided into two main sections:

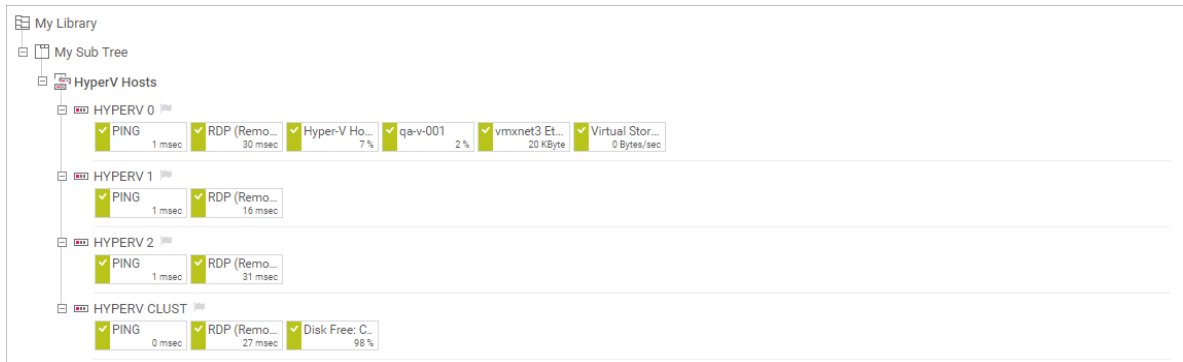
- Basic Library Node Settings:**
 - Library Node Name:** A text input field containing "NetFlow".
 - Security Context:** A dropdown menu showing "PRTG System Administrator".
 - Tags:** A list of tags with "bandwidthsensor" and "netflow" selected, each with a close (X) button, and a plus (+) button to add more.
- Library Node Display Settings:**
 - Linked Object:** A search field containing "Root" with a search icon (Q) on the right.
 - Library Node View:** Two radio button options: "Show a subtree of the device tree" (unselected) and "Show a collection of filtered sensors" (selected).
 - Filter By Type:** Two radio button options: "Show all sensor types" (unselected) and "Show only specific sensor types" (selected).
 - Select Sensor Types:** A search field with "Search..." and a search icon (Q). Below it, a list of sensor types with checkboxes: "Name" (unchecked) and "Active Directory Replication E..." (unchecked).

At the bottom right of the dialog, there are "Cancel" and "OK" buttons.

Edit Library Node Display Settings

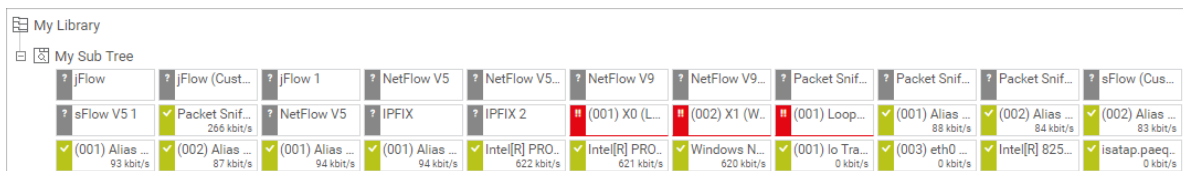
You can either show the Linked Object as a subtree of your device tree including probes, groups, and devices, or you can view all sensors underneath the Linked Object.

- When you select Show a subtree of the device tree, the library node called **My Sub Tree**, for example, looks like a branch in your device tree.



Library with One Node that Shows a Branch of the Device Tree

- When you select Show only specific sensor types, PRTG only shows the sensors that are underneath the Linked Object in the device tree without probes, groups, and devices. You can additionally filter for certain sensor types, states, and tags. PRTG then only shows matching sensors. In the example screenshot, you can see the library node **My Sub Tree** where only bandwidth sensors are shown.



Library with One Node that Only Shows a Collection of Bandwidth Sensors

For more information, see section [Libraries and Node Settings](#) ⁴⁰⁵⁹.

Context Menu

You can right-click any object on a library's Overview tab or Management tab to open its context menu.

For more information, see section [Library Context Menus](#) ⁴⁰⁶⁶.

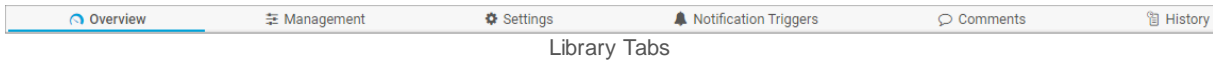
Libraries

- [Libraries Step by Step](#) ⁴⁰⁵¹
- [Library Management](#) ⁴⁰⁵⁶
- [Libraries and Node Settings](#) ⁴⁰⁵⁹
- [Library Context Menus](#) ⁴⁰⁶⁶

8.9.3 Libraries and Node Settings

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

Use the library tabs to access all functionalities and settings of a library.



Overview

Click the Overview tab to show the status of your library.

Management

Click the Management tab to edit the contents of your library, for example, to add items to the library via drag-and-drop.

■ For more information, see section [Library Management](#) ⁴⁰⁵⁶.

Library Node Settings

To change the settings of a library node, go to a library's Overview tab and click the name of a library node. You can also open the library node settings on the Management tab via the library node's [context menu](#) ⁴⁰⁶⁶.


i You can only change the settings of a library node if it already contains monitoring objects like groups, devices, or sensors.

Basic Library Node Settings

Setting	Description
Library Node Name	<p>Enter a meaningful name for the library node.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Security Context	<p>Define the security context for the Overview tab of the library. Select a user account from the dropdown list to define which objects are visible. All users with access to the library can only see the objects that the selected user account has the rights to view.</p> <p>i Only sensors that are visible in the library trigger a notification ⁴⁰⁴².</p>

Setting	Description
	<p>i Basically, the security context defines the minimum access rights to objects like libraries, reports, or maps, that a user account has. If the security context of an object is PRTG System Administrator, for example, every user sees all objects in a library, in a report, or on a map, no matter what the particular user access rights are.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited^[145].</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Library Node Display Settings

Setting	Description
Linked Object	<p>Click  and use the object selector^[257] to change the object in the device tree that the library node references.</p>
Library Node View	<p>Select how you want to view the objects that PRTG shows underneath the library node:</p> <ul style="list-style-type: none"> ▪ Show a subtree of the device tree: View all objects underneath the linked object as you can see them in the device tree, including probes, groups, and devices. ▪ Show a collection of filtered sensors: Only view the sensors underneath the linked object without probes, groups, and devices. You can use filters to show only specific sensors. <p>i The library node can show up to 1,000 sensors. PRTG discards further sensors.</p>
Filter by Sensor Type	<p>This setting is only visible if you select Show a collection of filtered sensors above. Select if you want to filter the displayed sensors by specific sensor types:</p> <ul style="list-style-type: none"> ▪ Show all sensor types: Do not filter by sensor types. ▪ Show only specific sensor types: Filter the displayed sensors by specific sensor types.

Setting	Description
Sensor Types	<p>i PRTG applies this filter in real time. If the configuration underneath the linked object changes, the library node accordingly shows matching sensors.</p> <p>This setting is only visible if you select Show only specific sensor types above. You can see a list of all sensor types. PRTG displays sensors that are in use in bold print.</p> <p>Enable the check box in front of a sensor type that you want to include in the library node view.</p> <p>i You can also select all items or cancel the selection by using the check box in the table header.</p> <p>i PRTG applies this filter in real time. If the configuration underneath the linked object changes, the library node accordingly shows matching sensors.</p> <p>i You cannot filter for sensor types that are defined in mini probes.</p>
Filter by Sensor Status	<p>This setting is only visible if you select Show a collection of filtered sensors above. Select if you want to filter the displayed sensors by specific sensor states:</p> <ul style="list-style-type: none"> ▪ Show all sensor states: Do not filter by sensor status. ▪ Show only sensors specific states: Filter the displayed sensors by specific sensor states.
Sensor States	<p>This setting is only visible if you select Show only sensors in specific states above. You can see a list of all sensor states.</p> <p>Enable the check box in front of a sensor status to include all sensors that show this status in the library node view:</p> <ul style="list-style-type: none"> ▪ Unknown ▪ Up ▪ Warning ▪ Down ▪ Paused by user ▪ Unusual ▪ Down (Acknowledged) ▪ Down (Partial) <p>i You can also select all items or cancel the selection by using the check box in the table header.</p>

Setting	Description
Filter by Tag	<p>i PRTG applies this filter in real time. If the configuration underneath the linked object changes, the library node accordingly shows matching sensors.</p> <p>This setting is only visible if you select Show a collection of filtered sensors above. Select if you want to filter the displayed sensors by specific tags:</p> <ul style="list-style-type: none"> ▪ Show all tags: Do not filter by tag. ▪ Show only sensors with specific tags: Filter the displayed sensors by specific tags.
Tags	<p>This setting is only visible if you select Show only sensors with specific tags above. Enter one or more tags for sensors that you want to include in the library node view. You can also use the plus sign (+) or the minus sign (-) to categorize tags as must have or must not have, for example, +snmp;-wmi (must have the tag snmp and must not have the tag wmi).</p> <p>i The tag of a sensor can also be inherited from a parent object.</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>i PRTG applies this filter in real time. If the configuration underneath the linked object changes, the library node accordingly shows matching sensors.</p>
Filter by Priority	<p>This setting is only visible if you select Show a collection of filtered sensors above. Select if you want to filter the displayed sensors by specific priorities ^[253]:</p> <ul style="list-style-type: none"> ▪ Show all priorities: Do not filter by priority. ▪ Show only sensors with specific priorities: Filter the displayed sensors by specific priorities. <p>i PRTG ignores the priority settings of a parent object. It only regards the priority setting of the sensor itself.</p>
Priorities	<p>This setting is only visible if you select Show only sensors with specific priorities above. You can see a list of all available priorities.</p> <p>Enable the check box in front of a priority to include all sensors that have this priority in the library node view:</p> <ul style="list-style-type: none"> ▪ ***** (highest priority) ▪ **** ▪ *** ▪ ** ▪ * (lowest priority)

Setting	Description
	<p>i PRTG applies this filter in real time. If the configuration underneath the linked object changes, the library node accordingly shows matching sensors.</p>

i Click OK to save your settings. If you close the dialog without saving, all changes to the settings are lost.

i After you apply filters, it might take several seconds for the changes to become visible. This is because of internal filter processes that run in the background.



Settings


Click the Settings tab to open a library's general settings.


Basic Library Node Settings

Setting	Description
Library Node Name	<p>Enter a meaningful name for the library.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Security Context	<p>Define the security context for the Overview tab of the library. Select a user account from the dropdown list to define which objects are visible. All users with access to the library can only see the objects that the selected user account has the rights to view.</p> <p>i Only sensors that are visible in the library trigger a notification⁴⁰⁴².</p> <p>i Basically, the security context defines the minimum access rights to objects like libraries, reports, or maps, that a user account has. If the security context of an object is PRTG System Administrator, for example, every user sees all objects in a library, in a report, or on a map, no matter what the particular user access rights are.</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited¹⁴⁵¹.</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the object. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ No access: Users in this user group cannot see or edit the object. The object does not show up in lists. ▪ Read access: Users in this user group can see the object and view its settings. ▪ Write access: Users in this user group can see the object and view and edit its settings. However, they cannot edit the object's access rights settings. ▪ Full access: Users in this user group can see the object, view and edit its settings, and edit its access rights settings. <p> You can create new user groups in the User Groups  settings.</p>

 When you give access rights to a user group, all user group members can see the objects in the respective library.

 Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

Notification Triggers

You can define notification triggers for any kind of library, also for dynamic libraries that can change with every scanning interval, for example, when you filter a library by sensor status or priority.

 For more information, see section [Notifications Based on Libraries Step by Step](#) .

Comments

On the Comments tab, you can enter free text for each object. You can use this function for documentation purposes or to leave information for other users.

History

On the History tab, all changes in the settings of an object are logged with a time stamp, the name of the user who made the change, and a message. The history log retains the last 100 entries.

Delete

You can delete the entire library at any time. Right-click a library's name and select Delete from the context menu.





More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Libraries

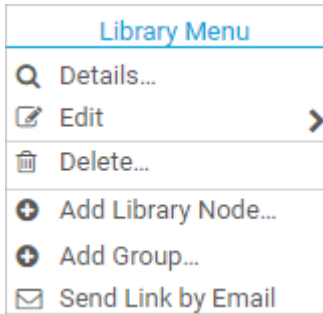
- [Libraries Step by Step](#)  4051
- [Library Management](#)  4056
- [Libraries and Node Settings](#)  4059
- [Library Context Menus](#)  4065

8.9.4 Library Context Menus

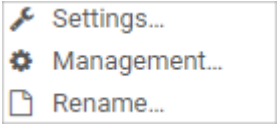
Right-click a library or a library node on a library's Overview tab or Management tab to show its context menu.

Library Menu

The Library Menu contains actions for your libraries.

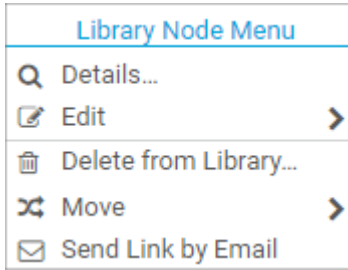


Library Menu

Action	Description
Details	Show the Overview tab ⁴⁰⁶¹ of the object.
Edit	<p>Hover over Edit to show the Edit menu. The following actions are available:</p>  <p>Edit Context Menu</p> <ul style="list-style-type: none"> ▪ Settings: Open a dialog to edit the library settings⁴⁰⁶³. ▪ Management: Open the Management⁴⁰⁵⁶ tab of the library. ▪ Rename: Open a dialog to edit the name of the object.
Delete	Delete the object. PRTG asks for confirmation before it actually deletes an object.
Add Library Node	Add a new library node to the library.
Add Group	Add a group to the library to create nested library nodes.
Send Link by Email	Send a link to the object by email. Click to create a new email with your system's standard email client. The email contains a direct link to the Overview tab of the object.

Library Node Menu

The Library Node Menu contains actions for your library nodes.






Library Node Menu

Action	Description
Details	Show the Overview tab ⁴⁰⁵¹ of the object.
Edit	<p>Hover over Edit to show the Edit menu. The following actions are available:</p> <ul style="list-style-type: none"> ▪ Settings: Open a dialog to edit the library node settings⁴⁰⁵⁹. ▪ Rename: Open a dialog to edit the name of the object.
Delete from Library	Delete the object. PRTG asks for confirmation before it actually deletes an object.
Move	<p>Hover over Move to open the Move menu. The following actions are available:</p> <div> </div> <p>Move Context Menu</p> <ul style="list-style-type: none"> ▪ Top: Move the library node to the top of the library. ▪ Up: Move the library node one entry up. ▪ Down: Move the library node one entry down. ▪ Bottom: Move the library node to the bottom of the library.
Send Link by Email	Send a link to the object by email. Click to create a new email with your system's standard email client. The email contains a direct link to the Overview tab of the object.

Libraries

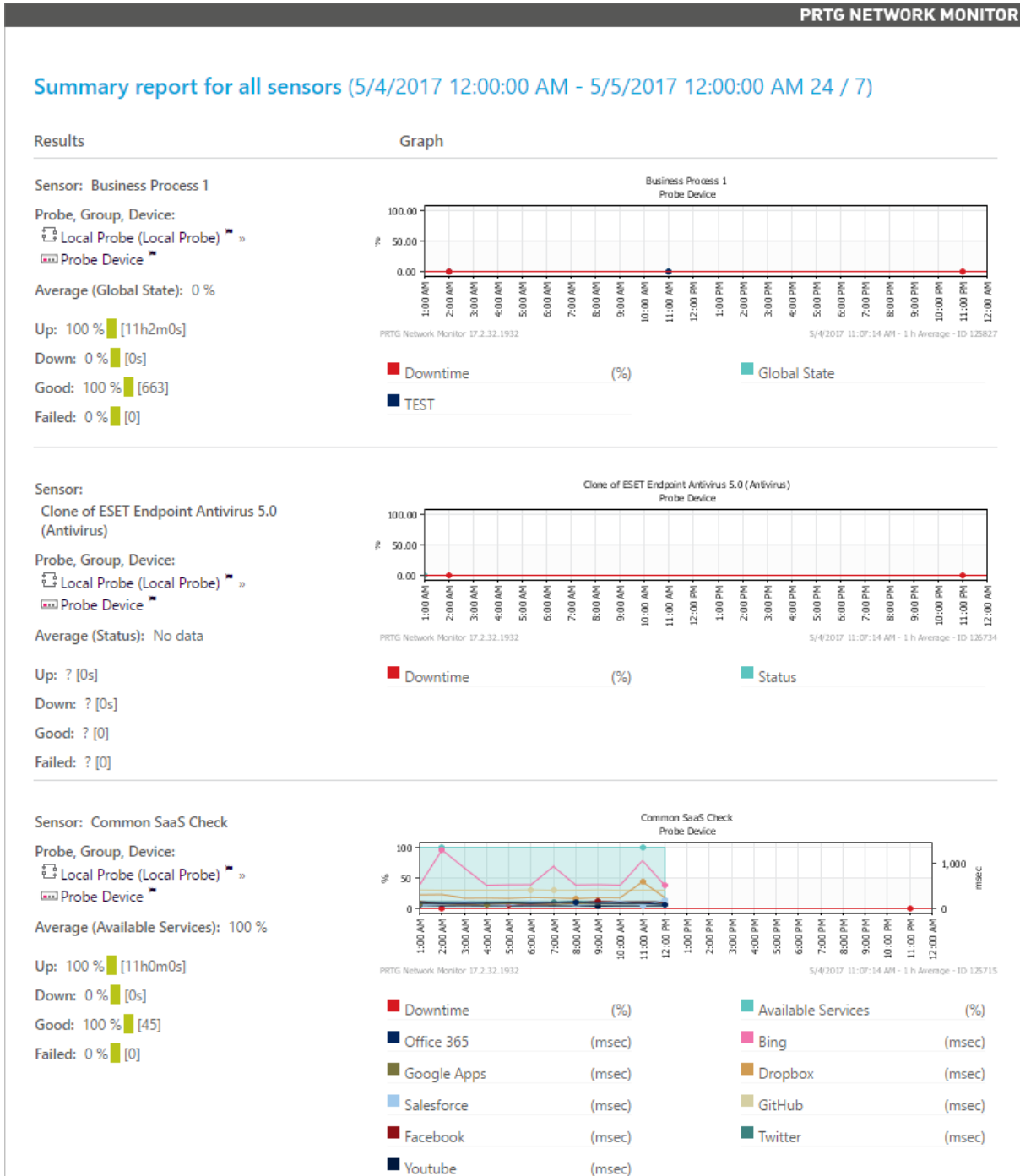
- [Libraries Step by Step](#)⁴⁰⁵¹

Part 8: Advanced Procedures | 9 Libraries
4 Library Context Menus

- [Library Management](#)  4068
- [Libraries and Node Settings](#)  4069
- [Library Context Menus](#)  4068

8.10 Reports






With the Reports feature, you can view and analyze historic monitoring results for a specific period of time or for your system configuration. You can create reports for all sensors or only for specific sensors.




Example of a Report

i The report above shows the report data for devices on a local probe. You can see graphs for the preceding week and data tables with numeric results.

In this section:

- [Introduction](#) 
- [Reports Menu](#) 
- [Reports List](#) 
- [Configuration Reports](#) 
- [Automatic Averaging](#) 
- [Working with Reports](#)

Introduction

You can generate reports on demand or via schedules in HTML and PDF format, as well as in comma-separated values (CSV) and Extensible Markup Language (XML) format. Furthermore, you can create reports for a single sensor or for a whole range of sensors. It is also possible to [create HTML reports of your system configuration](#) .

Report templates define the overall look of your report and in which detail the report shows monitoring data.


Preconfigured Reports

PRTG provides several preconfigured reports that you can also edit or delete.

- Summary report for all sensors
- Top 100 Busy/Idle Processor Sensors
- Top 100 Fastest/Slowest HTTP Sensors
- Top 100 Fastest/Slowest Ping Sensors
- Top 100 Free/Full Disk Space Sensors
- Top 100 Most/Least Used Bandwidth Sensors
- Top 100 Most/Least Used Memory Sensors
- Top 100 Uptime/Downtime Report

Reports Menu

Click Reports in the [main menu bar](#)  to open an overview list of all reports about monitoring data. Hover over Reports to show other options.

Option	Description
All	Open the Reports list where you can view or add reports about your monitoring data.
Add Report	Open a dialog to create  a new report.

Option	Description
Select Report	Hover over Select Report to show a list of your reports about monitoring data. Click a report to open it.
Configuration Reports	Hover over Configuration Reports to see the available configuration reports ⁴⁰⁷² . Select an item to create reports for maps, reports, users and user groups, and system configuration to document changes to the configuration.

Reports List

In the All view, you see a list of all reports about monitoring data.

Reports				
Object ▾	Template ↕	Security Context ↕	Period ↕	Schedule ↕
<input checked="" type="checkbox"/> Summary report for all sensors	List of sensors (with 1 h graph)	PRTG System Admi...	Day	None
<input checked="" type="checkbox"/> Top 100 Busy/Idle Processor Sensors	Top 100 highest and lowest (5 ...	PRTG System Admi...	Day	None
<input checked="" type="checkbox"/> Top 100 Fastest/Slowest HTTP Sensors	Top 100 highest and lowest (5 ...	PRTG System Admi...	Day	None
<input checked="" type="checkbox"/> Top 100 Fastest/Slowest Ping Sensors	Top 100 highest and lowest (5 ...	PRTG System Admi...	Day	None
<input checked="" type="checkbox"/> Top 100 Free/Full Disk Space Sensors	Top 100 highest and lowest (5 ...	PRTG System Admi...	Day	None
<input checked="" type="checkbox"/> Top 100 Most/Least Used Bandwidth S...	Top 100 highest and lowest (5 ...	PRTG System Admi...	Day	None
<input checked="" type="checkbox"/> Top 100 Most/Least Used Memory Sen...	Top 100 highest and lowest (5 ...	PRTG System Admi...	Day	None
<input checked="" type="checkbox"/> Top 100 Uptime/Downtime Report	Top 100 uptime and downtime...	PRTG System Admi...	Day	None

List of Reports



Section	Description
Object	Shows the name of the report.
Template	Shows the name of the template that this report uses.
Security Context	Shows the user account that PRTG uses to run the report. This user account defines which objects are visible in the report. ■ For more information, see section Reports Settings ⁴⁰⁸³ .
Period	Shows the time span that the report covers.

Section	Description
Schedule	Shows if you set a schedule to automatically run the report in a regular interval. ■ For more information, see section Reports Settings ⁴⁰⁸³ .
Email	Shows the email address to which PRTG automatically sends the report if you set a schedule and entered an email address in the report settings.
Status	Shows the status of the report.
Next Run	Shows the date and time at which PRTG runs the report the next time if you set a schedule in the report settings.
Last Run	Shows the date and time at which PRTG ran the report the last time if you set a schedule in the report settings.
# Sensors in Last Run	Shows the number of sensors whose data was included when PRTG last ran the report.

Click the name of a report about monitoring data to open the Run Now tab.

i You can only run configuration reports via the main menu bar.

Enable the check box next to a report and use the quick action buttons to perform the following actions:

- Clone (clone ⁴⁰¹⁰ of this report.
- Delete (settings ⁴⁰⁸³.

To add a new report, hover over  and select Add Report from the menu.

■ See also sections [Working with Table Lists](#) ²⁴⁶ and [Multi-Edit](#) ⁴⁰¹⁴.

Configuration Reports

Configuration reports show the PRTG configuration. They are available for Maps, Reports, Users & User Groups, and System Configuration. PRTG directly displays a configuration report in a new browser window as an HTML page. You can use configuration reports, for example, to file and document changes to the PRTG configuration.

Configuration reports contain the same information as you can see on the [Maps](#) ⁴⁰⁹⁵ overview, the [Reports](#) ⁴⁰⁶⁵ overview, and on the [User Accounts](#) ⁴²¹¹ and [User Groups](#) ⁴²¹⁹ tabs of the system administration settings. The configuration report System Configuration includes the system administration settings of the [User Interface](#) ⁴¹⁷⁵, [Monitoring](#) ⁴¹⁸⁷, [Notification Delivery](#) ⁴¹⁹⁴, [Core & Probes](#) ⁴²⁰², and [Cluster](#) ⁴²²⁹ tabs.

- ❶ Configuration reports are interactive. You can click available links to go to the corresponding pages in the PRTG web interface.

Automatic Averaging

For performance reasons, PRTG automatically averages monitoring data when it calculates data for large periods of time.

Period of Time in Report	Minimum Level of Detail (Averaging Interval)
Up to 40 days	Any
40 to 500 days	60 minutes/1 hour or longer

- ❶ Reports for periods that are longer than 500 days are not possible. If you enter a longer period, PRTG automatically shortens it to 500 days.
- ❶ In some cases, the generated report might contain a period of time that differs from the defined start and end date for the report because of internal averaging processes. When averaging intervals are longer than 1 hour and do not equal 24 hours, and when they are combined with specific periods of time, the resulting data points might be asynchronous to the periods of time. Consider this behavior particularly if you use [application programming interface \(API\) calls](#) ⁴³⁸⁹ to generate reports.

Working With Reports

For detailed information on how to create, edit, and schedule reports, see the following sections:

- [Reports Step by Step](#) ⁴⁰⁷⁵
- [Run Reports](#) ⁴⁰⁷⁸
- [Report Settings](#) ⁴⁰⁸³


Advanced Procedures

- [Toplists](#) ⁴⁰⁰²
- [Move Objects](#) ⁴⁰⁰⁷
- [Clone Object](#) ⁴⁰¹⁰
- [Multi-Edit](#) ⁴⁰¹⁴
- [Create Device Template](#) ⁴⁰¹⁹
- [Show Dependencies](#) ⁴⁰²³
- [Geo Maps](#) ⁴⁰²⁶
- [Notifications](#) ⁴⁰³¹
- [Libraries](#) ⁴⁰⁴⁷
- [Reports](#) ⁴⁰⁸⁹

Part 8: Advanced Procedures | 10 Reports







- [Maps](#)  4086
- [Setup](#)  4121

8.10.1 Reports Step by Step

 This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.



To run a report or to create a new report, follow the steps in this section.

In this section:

- [Step 1: Add a Report](#)  4075
- [Step 2: Select a Report Template](#)  4077
- [Step 3: Select Cluster Nodes and Sensors](#)  4077
- [Step 4: Define a Report Schedule and Additional Settings](#)  4077
- [Step 6: Check and Adjust the Included Sensors](#)  4078
- [Step 7: Run Report](#)  4078

Step 1: Add a Report

First, you need to create a new report:

1. Click Reports in the [main menu bar](#)  281 to show an overview list of all reports.
2. Hover over  and select Add Report from the menu to open the Add Report dialog.

Add Report

< Cancel

Basic Report Settings

Report Name ⓘ

Report

Tags ⓘ

+

Report Template ⓘ

<please select a file> ▾

This field is required.

Security Context ⓘ

PRTG System Administrator ▾

Time Zone ⓘ

(UTC+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna ▾

Page Format ⓘ

None

DIN A4

DIN A3

DIN A2

Legal

Letter

Ledger

Add Report Dialog

3. Enter a meaningful Report Name.
4. Optionally, enter Tags for the new report and define the Security Context, your Time Zone for all dates in the report, as well as the Page Format and the Page Orientation if you want to generate PDF files.

■ For more information, see section [Reports Settings](#) ⁴⁰⁸³.

ⓘ You can also add a report via the [context menu](#) ²⁵⁹ of an object. In this case, the selected object is automatically included in the report.

i When a user with administrative rights creates a new object, only other users with administrative rights can view or edit the new object by default. When a read/write user creates a new object, all members of the read/write user's primary group can view and edit the new object as well. This behavior applies to [libraries](#)^[4047], [maps](#)^[4095], [reports](#)^[4069], [notification templates](#)^[4131], and [schedules](#)^[4169]. For more information, see section [Access Rights Management](#)^[155].

Step 2: Select a Report Template

Select a Report Template from the list of available templates. This template defines the overall look of your report and in which detail the report includes monitoring data. There are templates that offer optional data tables in addition to graphs. You can also specify the calculation interval for graphs.

■ For more information, see section [Reports Settings](#)^[4083].

Step 3: Select Cluster Nodes and Sensors

Select the cluster nodes and sensors that you want to include in the report:

1. This step is only necessary if you run PRTG in a cluster^[135]. Select a Cluster Node from which PRTG takes the monitoring data.
 - i** If you select All cluster nodes, PRTG creates a report with data from all of your cluster nodes, but only the **primary** channel of every sensor appears in the report.
2. Reports show monitoring results based on sensor data. You can either add sensors manually or by tag. If you want to add sensors by tag, go to the Included Sensors section. Enter one or more tags separated by a comma or space in the Sensors by Tag field to include all sensors that have at least one of these tags in the report. For example, enter the tag **bandwidthsensor** to include all sensors that measure bandwidth.
3. Use the Filter Included Sensors by Tag setting to explicitly filter for sensors with specific tags, or to additionally filter sensors that you manually added by tag. You can also leave the field empty.

■ For more information, see section [Tags](#)^[145].

Step 4: Define a Report Schedule and Additional Settings


Define more detailed settings like a report schedule or a report period:

1. In the Report Schedule section, select No schedule if you only want to run the report on demand, or choose a schedule if you want to automatically run the report on a regular basis.
 - i** By default, PRTG does not run scheduled reports on [failover nodes](#)^[4513].
2. Set a Report Period that suits your needs.
3. Define how you want to handle percentiles. If you choose Show percentiles, the report displays an overview table with the percentiles of **each** channel for the whole report period, and the percentiles of the **primary** channel in the table for each scanning interval.
4. In section Data Files, select if you want to include .csv and .xml data files in the report in addition to a .pdf file. You can only generate data files for reports that include data tables.
5. Optionally, add custom Report Comments for the beginning and the end of your report.
6. Define individual Access Rights for your user groups. These access rights specify which user groups can view or edit the report.

i Save your settings. If you leave the page, all changes to the settings are lost.

■ For more information, see section [Reports Settings](#) .

Step 6: Check and Adjust the Included Sensors

After you save the settings, PRTG opens the Select Sensors Manually tab where you can [manually add](#)  entire probes, groups, devices, or individual sensors via drag-and drop in addition to the sensors that you selected by tag. You can also remove sensors from the selection.

Go to the Sensors Selected by Tag tab to see a list of all sensors that you added by tag. To change tags, go back to the Settings tab.

 The final report includes both manually selected sensors and sensors selected by tag.

■ For more information, see section [Reports Settings](#) .

Step 7: Run Report

Open the Run Now tab, select a period, and in section Report Processing, select View report as HTML. Click Run Report. PRTG immediately generates the report in a new browser window or tab. Depending on the number of selected sensors and the used template, it might take a few minutes until you see the report. If you do not want to wait, close the newly opened browser window or tab and select a PDF option. Click Run Report again. The report is then generated in the background and you get a ToDo ticket or email once it is finished.

More

■ KNOWLEDGE BASE

Creating a PDF report does not work. What can I do?

- <https://kb.paessler.com/en/topic/87084>

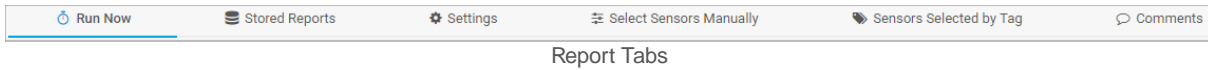
Reports

- [Reports Step by Step](#) 
- [Run Reports](#) 
- [Report Settings](#) 

8.10.2 Run Reports

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

Use the reports tabs to access all functionalities and settings of a report.



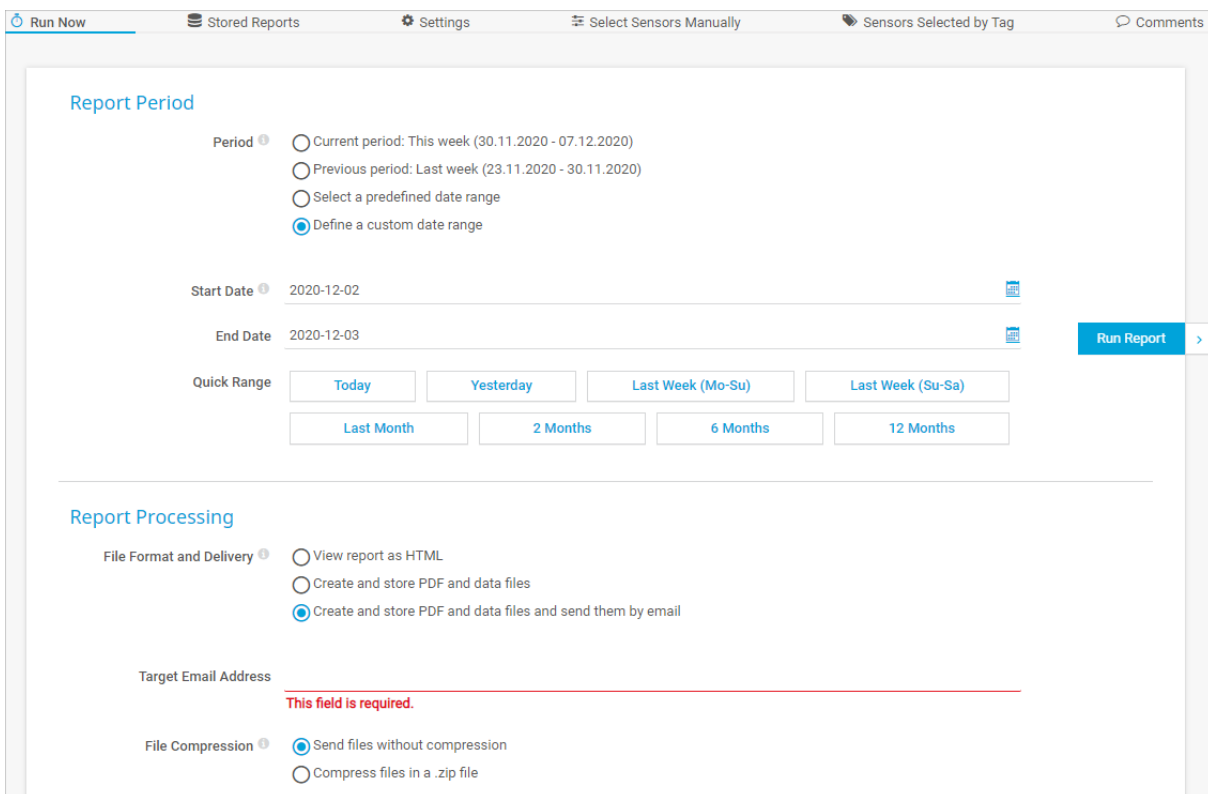
Report Tabs

Click Go to all reports at the bottom of the page to open the overview list of all reports.

Run Now

On the Run Now tab, you can immediately run a report with the settings that you defined before.

i When you set up or run a report, also keep in mind the [remarks for reports](#) ⁴⁰⁸².



Run Report on Demand

Report Period

Setting	Description
Period	Define the time span that the report covers:

Setting	Description
	<ul style="list-style-type: none"> ▪ Current period: This week [date range]: Use monitoring data of the current period. The actual time span depends on the report period that you define in the report settings. It can be today, this week, this month, or this year. ▪ Previous period: Last week [date range]: Use monitoring data of the last period. The actual time span depends on the report period that you define in the report settings. It can be yesterday, last week, last month, or last year. ▪ Select a predefined date range: Use monitoring data of a predefined period other than the current or the previous period. Select from a list of date ranges below. ▪ Define a custom date range: Use monitoring data of a custom period. Set the start and end date below or choose from several quick range buttons.
Date Range	This setting is only visible if you select Select a predefined date range above. From the list, select a date range for which PRTG generates the report. The shown time spans depend on the available monitoring data and on the report period that you define in the report settings. It can be days, weeks, months, or years.
Start Date	This setting is only visible if you select Define a custom date range above. Set the start date of the time span for which PRTG generates the report. Use the date time picker to enter the date and time. Make sure that you define a valid period.
End Date	This setting is only visible if you select Define a custom date range above. Set the end date of the time span for which PRTG generates the report. Use the date time picker to enter the date and time. Make sure that you define a valid period.
Quick Range	<p>This setting is only visible if you select Define a custom date range above. You can use several buttons to quickly set the start and end dates for the report. You can choose between Today, Yesterday, Last Week (Mo-Su), Last Week (Su-Sa), Last Month, 2 Months, 6 Months, and 12 Months.</p> <p>i PRTG sets the date range to the last matching period. It starts at 00:00 and ends at 00:00 of the following day.</p>




Report Processing

Setting	Description
File Format and Delivery	Define how you want to view the report:

Setting	Description
	<ul style="list-style-type: none"> ▪ View report as HTML: Directly view the report in a new browser window or tab. ▪ Create and store PDF and data files: Create a .pdf file and, depending on the Data Files ⁴⁰⁷⁹ setting, create data files of the report and store it. You find the stored report files on the Stored Reports tab. You also receive a ToDo ticket. By default, PRTG sends out a notification email to administrators in this case. ▪ Create and store PDF and data files and send them by email: Create a .pdf file and, depending on the Data Files setting, create data files of the report, store the files, and send them via email to the email address that you define below. You can find the stored report files on the Stored Reports tab. <p>i PRTG only generates .csv and .xml data files for report templates that include data tables.</p> <p>i To create .pdf files, make sure that the print spooler service runs on the PRTG core server system.</p> <p>i Some special characters, for example, 4-byte unicode characters, might not be displayed correctly in PDF reports. As a workaround, we recommend that you generate an HTML report and save it as a .pdf file.</p> <p>i If you generate reports with Internet Explorer 11, we recommend that you use one of the PDF options for optimal results.</p>
Target Email Address	<p>This setting is only visible if you select Create and store PDF and data files and send them by email above. Enter one or more valid email addresses to which PRTG sends the report. Use commas to separate email addresses.</p> <p>i PRTG sends an email to all recipients. All recipients appear in the To field of the email.</p> <p>i You can change the configuration for outgoing emails in the Notification Delivery ⁴¹⁹⁴ settings.</p>
File Compression	<p>This setting is only visible if you select Create and store PDF and data files and send them by email above. Define if PRTG compresses the attached report files before it sends them:</p> <ul style="list-style-type: none"> ▪ Send files without compression: PRTG sends the report files by email in their original size. ▪ Compress files in a .zip file: PRTG compresses the report files to a .zip file before they are sent by email.


Click Run Report to start the report generation. Depending on the number of selected sensors, this might take a while. If it takes a long time to generate HTML reports, consider using one of the PDF options.

Remarks for Reports

- Any sensor graph in your report only shows channels that you enable via the Show in graphs option in the [channel settings](#) .
- Reports show statistics for the uptime (the Up and Down [states](#)  in percent) and for requests (Good and Failed in percent). PRTG rounds values between 5% and 95%, as well as 100% and 0%, to whole numbers without decimal places. Other values are shown with 3 decimal places.
- Because PRTG rounds values, the statistics in the report section Sensor Status History can differ from the values in the report section Uptime Stats by a few seconds.
- PRTG limits data reporting to 5 requests per minute.
- Reports cannot show uptime or downtime data for the [Sensor Factory sensor](#) .
- Create reports that include an appropriate amount of data. Reports might not work as expected if PRTG has to process too many sensors with short scanning intervals. Adjust your report size and the time span that the report covers, if necessary.

Stored Reports

On the Stored Reports tab, you can view all PDF reports and data files that you created and stored.

Click a name to open the report. PRTG stores reports until they are deleted according to the [data purging settings](#)  of your PRTG configuration.

Other Tabs

For all other tabs, see section [Report Settings](#) .

More

KNOWLEDGE BASE

Why is there missing data in historical data reports?

- <https://kb.paessler.com/en/topic/61382>

Creating a PDF report does not work. What can I do?

- <https://kb.paessler.com/en/topic/87084>

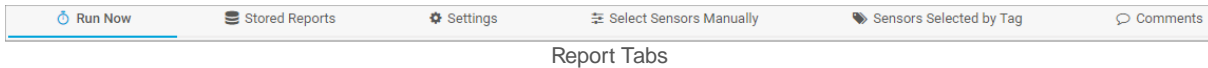
Reports

- [Reports Step by Step](#) 
- [Run Reports](#) 
- [Report Settings](#) 

8.10.3 Report Settings














i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

Use the reports tabs to access all functionalities and settings of a report.




Click [Go to all reports](#) at the bottom of the page to open the overview list of all reports.

In this section:

- [Run Now](#) 
- [Stored Reports](#) 
- [Settings](#) 
- [Basic Report Settings](#) 
- [Included Sensors](#) 
- [Report Schedule](#) 
- [Report Period](#) 
- [Percentile Handling](#) 
- [Data Files](#) 
- [Report Comments](#) 
- [Access Rights](#) 
- [Select Sensors Manually](#) 
- [Sensors Selected by Tag](#) 
- [Comments](#)

Run Now

On the Run Now tab, you can immediately run a report with the settings that you defined before.

 For more information, see section [Run Reports](#) .

Stored Reports

On the Stored Reports tab, you can view reports that you created.

 For more information, see section [Run Reports](#) .

Settings

Click the Settings tab to open the settings of a report.

i When you set up or run a report, also keep in mind the [remarks for reports](#) ⁴⁰⁸².

Basic Report Settings

Setting	Description
Report Name	<p>Enter a meaningful name for the report. PRTG uses the name in reports lists ²⁸⁶ and as the title of generated reports.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ¹⁴⁵.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>
Report Template	<p>Select a template for the report from the dropdown list. The template defines the overall look of your report and in which detail the report shows monitoring data. PRTG includes several preconfigured report templates. You can choose templates from the following categories:</p> <ul style="list-style-type: none"> ▪ Graph with data table (data files available): Create a report with graphs and data tables. Choose from different intervals. Reports that use one of these templates also generate .csv and .xml files if you enable the respective setting in the Data Files section. ▪ Data table only (data files available): Create a report with data tables. Choose from different intervals. Reports that use one of these templates also generate .csv and .xml files if you enable the respective setting in the Data Files section. ▪ Graph only (data files not available): Create a report with graphs. Choose from different intervals. Reports that use one of these templates cannot generate .csv or .xml files. ▪ List of sensors (data files not available): Create a report in a compact sensor list style. The list is available with and without graphs. Reports that use one of these templates cannot generate .csv or .xml files. ▪ Top 100 highest and lowest (data files not available): Create a report with up to 100 objects with the highest and lowest average values. Choose from different intervals. Reports that use one of these templates cannot generate .csv or .xml files.

Setting	Description
	<ul style="list-style-type: none"> ▪ Top 10 uptime and downtime (data files not available): Create a report with up to 10 objects with the highest uptime and downtime for each object. You can choose between data in percent and hours. Reports that use one of these templates cannot generate .csv or .xml files. ▪ Top 100 uptime and downtime (data files not available): Create a report with up to 100 objects with the highest uptime and downtime for each object. You can choose between data in percent and hours. Reports that use one of these templates cannot generate .csv or .xml files. <p>i PRTG automatically averages⁴⁰⁷³ monitoring data within an interval.</p>
Security Context	<p>Define the security context that the report uses for access to monitoring data. Select a user account from the dropdown list to define which objects are visible in the report. The report only contains objects that the selected user has the rights¹⁵³ to view. By default, the security context is the user account that creates the report.</p> <p>i Basically, the security context defines the minimum access rights to objects like libraries, reports, or maps, that a user account has. If the security context of an object is PRTG System Administrator, for example, every user sees all objects in a library, in a report, or on a map, no matter what the particular user access rights are.</p>
Time Zone	<p>Select a time zone from the dropdown list. PRTG uses this time zone for all date-specific settings in the report.</p>
Page Format	<p>Define the page size in which PRTG creates PDF files.</p> <ul style="list-style-type: none"> ▪ None: Do not specify a page format. PRTG automatically sets a size. ▪ DIN A4: Use the German DIN A4 format. ▪ DIN A3: Use the DIN A3 format. ▪ DIN A2: Use the DIN A2 format. ▪ Legal: Use the North American legal page format. ▪ Letter: Use the North American letter page format. ▪ Ledger: Use the North American ledger page format.
Page Orientation	<p>Define the page orientation for the data in PDF reports:</p> <ul style="list-style-type: none"> ▪ Portrait: Use the portrait orientation. ▪ Landscape: Use the landscape orientation to show data tables of sensors with many channels. Other parts of the report remain in the portrait orientation and do not resize to the landscape orientation.

Included Sensors

Setting	Description
Cluster Node	<p>This setting is only visible if you run PRTG in a cluster¹³⁵. Select the cluster node from which the report takes monitoring data from the dropdown list. The available options are specific to your configuration.</p> <p>By default, the master node is set. Select All cluster nodes to create a report that includes data from all of your cluster nodes.</p> <ul style="list-style-type: none"> i A report for all cluster nodes only includes data for the primary channels. Be careful with big reports for all cluster nodes because the report generation might significantly slow down your monitoring. i If you select a failover node, report and data files do not show data from the local probe or from a remote probe and might be empty or show 0 values. i You can generate .csv and .xml data files only for a single failover node. If you select the option All cluster nodes, the report does not create data files.
Sensors by Tag	<p>Select the sensors that you want to include in the report by tag. Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited¹⁴⁵. The report covers all sensors that have at least one of the tags. You can also leave the field empty.</p> <p>You can also use the plus sign (+) or the minus sign (-) to categorize tags as must have or must not have, for example, +snmp -wmi (must have the tag snmp and must not have the tag wmi).</p> <ul style="list-style-type: none"> i For performance reasons, it can take some minutes until you can filter for new tags that you added. i The report automatically includes all channels of sensors that you add by tag, unless you run a cluster and select All cluster nodes in the Cluster Node setting above. i If you want to manually select the sensors to include in the report, save your settings and go to the Select Sensors Manually⁴⁰⁹² tab.
Filter Included Sensors by Tag	<p>Filter the included sensors further. Use this option, for example, if you manually add entire probes, groups, or devices to the report and do not want to include all sensors that have these objects as their parent objects. PRTG then only includes the sensors in the report that have at least one of the tags that you enter here.</p> <p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited¹⁴⁵. You can also leave the field empty.</p>

Setting	Description
	<p>You can also use the plus sign (+) or the minus sign (-) to categorize tags as must have or must not have, for example, +snmp -wmi (must have the tag snmp and must not have the tag wmi).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Report Schedule



Setting	Description
Schedule	<p>Define the time at which you want to automatically run the report:</p> <ul style="list-style-type: none"> ▪ No schedule: Only use the options on the Run Now tab to manually start the report generation. ▪ Every full hour: Run the report every 60 minutes. ▪ Every day at a specific hour: Run the report every 24 hours. Specify the exact time below. ▪ Every specific day of the week: Run the report every 7 days. Specify the exact time below. ▪ Every specific day of the month: Run the report on a specific day every month. Specify the exact time below. ▪ First day after the quarter: Run the report on the first day after the end of the quarter. This means, for example, on April 1st for the first quarter of the year (January 1st - March 31st). ▪ Every specific date: Run the report on a specific date every year. Specify the exact date below.
Specific Hour	<p>This setting is only visible if you select Every day at a specific hour above. From the list, select the hour at which you want to run the report.</p>
Specific Day	<p>This setting is only visible if you select Every specific day of the week above. From the list, select a day of the week or a day of the month for which you want to run the report.</p> <p>i If you select Last, the report always runs on the last day of the month, regardless of how many days the month has. If you select a date that does not exist in every month, for example, 30th, PRTG automatically runs the report on the last day of the month.</p>
Specific Date	<p>This setting is only visible if you select Every specific date above. Enter a valid date in the format DD.MM., for example, 31.12. The report runs on this date every year.</p>

Setting	Description
Report Handling	<p>This setting is only visible if you select one of the schedule options above. Define what you want to do with a finished report:</p> <ul style="list-style-type: none"> ▪ Store report and send it by email: Create a .pdf file and, depending on the Data Files setting, create data files of the report, store the files, and send them via email to the email address that you define below. You can find the stored report files on the Stored Reports tab. ▪ Store report: Create a .pdf file and, depending on the Data Files ⁴⁰⁹¹ setting, create data files of the report and store it. You find the stored report files on the Stored Reports tab. You also receive a ToDo ticket. By default, PRTG sends out a notification email to administrators in this case. ▪ Send report by email: Create a .pdf file and, depending on the Data Files setting, create data files of the report and send them via email to the email address that you define below. PRTG does not permanently store the report files. <ul style="list-style-type: none"> ❗ PRTG only generates .csv and .xml data files for report templates that include data tables. ❗ To create .pdf files, make sure that the print spooler service runs on the PRTG core server system. ❗ Some special characters, for example, 4-byte unicode characters, might not be displayed correctly in PDF reports. As a workaround, we recommend that you generate an HTML report and save it as a .pdf file.
Target Email Address	<p>This setting is only visible if you select one of the email options above. Enter one or more valid email addresses to which PRTG sends the report. Use commas to separate email addresses.</p> <ul style="list-style-type: none"> ❗ PRTG sends an email to all recipients. All recipients appear in the To field of the email. ❗ You can change the configuration for outgoing emails in the Notification Delivery ⁴¹⁹⁴ settings.
Email to User Group	<p>This setting is only visible if you select one of the email options above. From the list, select a user group to which you send an email with the report. All members of this group receive the email. You can edit user groups in the User Groups ⁴²¹⁹ settings.</p> <ul style="list-style-type: none"> ❗ If you define both individual email addresses and select a user group, PRTG sends the report to the individual email addresses as well as to the members of the selected user group. ❗ PRTG sends an email to all recipients. All recipients appear in the To field of the email.
File Compression	<p>This setting is only visible if you select one of the email options above. Define if PRTG compresses the attached report files before it sends them:</p>




Setting	Description
	<ul style="list-style-type: none"> ▪ Disable (default): PRTG sends the report files by email in their original size. ▪ Enable: PRTG compresses the report files to a .zip file before they are sent by email.

Report Period

Setting	Description
Report Period Type	<p>Define the type of period for which you want to create the report:</p> <ul style="list-style-type: none"> ▪ Current period: Use monitoring data of the current period. ▪ Previous period: Use monitoring data of the previous period. <p>i This setting works in combination with the Period setting below. For example, Previous period means yesterday if you select the Day option.</p>
Period	<p>Define the period that the report covers:</p> <ul style="list-style-type: none"> ▪ Day ▪ Week ▪ Month ▪ Quarter of year ▪ Year
Day Period	<p>This setting is only visible if you select Day above. From the list, select the hours at which a day starts and ends. The default setting is 0:00-23:59.</p>
Week Period	<p>This setting is only visible if you select Week above. From the list, select the days of the week when the week starts and ends:</p> <ul style="list-style-type: none"> ▪ Monday-Sunday: A reported week starts on the Monday and ends on the Sunday of the week. ▪ [Day-Day]: A reported week starts on the [Day] of the week and ends on the [Day] of the following week.
Month Period	<p>This setting is only visible if you select Month above. From the list, select the days of the month when the month starts and ends:</p> <ul style="list-style-type: none"> ▪ first-last day: A reported month starts on the first day and ends on the last day of the month.


Setting	Description
	<ul style="list-style-type: none"> ▪ [15.-14.]: A reported month starts on the 15th of the month and ends on the 14th of the following month.
Year Period	<p>This setting is only visible if you select Year above. From the list, select when the year starts and ends:</p> <ul style="list-style-type: none"> ▪ 1/1-12/31: A reported year starts on January 1st and ends on December 31st. ▪ 7/1-6/30: A reported year starts on July 1st and ends on June 30th the following year.
Report Schedule	<p>From the list, select a specific time span for which you want to generate the report. The report only includes monitoring data for specific hours or weekdays within the defined period.</p> <p>Select None to include all available monitoring data in the report, or choose a schedule, for example Weekdays, to exclude all weekends from the report. The available schedules depend on your configuration.</p> <p> For more information, see section Schedules .</p>

Percentile Handling

Setting	Description
Percentile Results	<p>Define if you want to include an additional percentile calculation  of your data in the report:</p> <ul style="list-style-type: none"> ▪ Do not show percentiles: PRTG does not use a percentile formula to calculate your monitoring results. It only shows the standard values. ▪ Show percentiles: PRTG displays an overview table with the percentiles of each channel for the whole report period, and the percentiles of the primary channel in the table for each scanning interval. <p> Percentiles are not available for all report templates. If a template does not support percentiles, they do not show up in the report, even if you enable this setting.</p> <p> Percentiles are also not available for a cluster if you select All cluster nodes in the Cluster Node setting in section Included Sensors. Select a failover node to include percentiles.</p>
Percentile Type	<p>This setting is only visible if you enable Show percentiles above. Enter the percentile type that you want PRTG to use for the calculation. If you choose, for example, to calculate the 95th percentile, enter 95 here and 5% of peak values are discarded. Enter an integer value.</p>

Setting	Description
Percentile Averaging Interval	This setting is only visible if you enable Show percentiles above. Enter a value to define the averaging interval on which PRTG bases the percentile calculation. The default value is 300 seconds (5 minutes). This means that PRTG takes 5-minute averages as basic values for the percentile calculation. Enter an integer value.
Percentile Mode	This setting is only visible if you enable Show percentiles above. Select the mode for percentile calculation: <ul style="list-style-type: none"> ▪ Discrete: PRTG takes discrete values to calculate percentile results. ▪ Continuous: PRTG interpolates between discrete values and bases the calculation on interpolated values.

Data Files


Setting	Description
Files in CSV / XML Format	Define if you want to generate .csv and .xml files for data tables in the report in addition to the .pdf file: <ul style="list-style-type: none"> ▪ Do not include data files: PRTG does not generate .csv or .xml files for the report. It only creates a .pdf file. ▪ Include only .csv files: PRTG generates and stores .csv files in addition to the .pdf file. The data files are only generated if the report uses a report template that includes data tables. ▪ Include only .xml files: PRTG generates and stores .xml files in addition to the .pdf file. The data files are only generated if the report uses a report template that includes data tables. ▪ Include all data files: PRTG generates and stores .csv and .xml files in addition to the .pdf file. The data files are only generated if the report uses a report template that includes data tables. <p> If you run PRTG in a cluster, the report does not generate data files if you select All cluster nodes in the Cluster Node setting. Select a failover node to get data files.</p>


Report Comments

Setting	Description
Introductory Comment	Enter a custom text that the report displays at the top of the first page. Enter a string or leave the field empty.

Final Comment	Enter a custom text that the report displays below the last data table or graph on the last page. Enter a string or leave the field empty.
---------------	--

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the object. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ No access: Users in this user group cannot see or edit the object. The object does not show up in lists. ▪ Read access: Users in this user group can see the object and view its settings. ▪ Write access: Users in this user group can see the object and view and edit its settings. However, they cannot edit the object's access rights settings. ▪ Full access: Users in this user group can see the object, view and edit its settings, and edit its access rights settings. <p> You can create new user groups in the User Groups⁴²¹⁹ settings.</p>

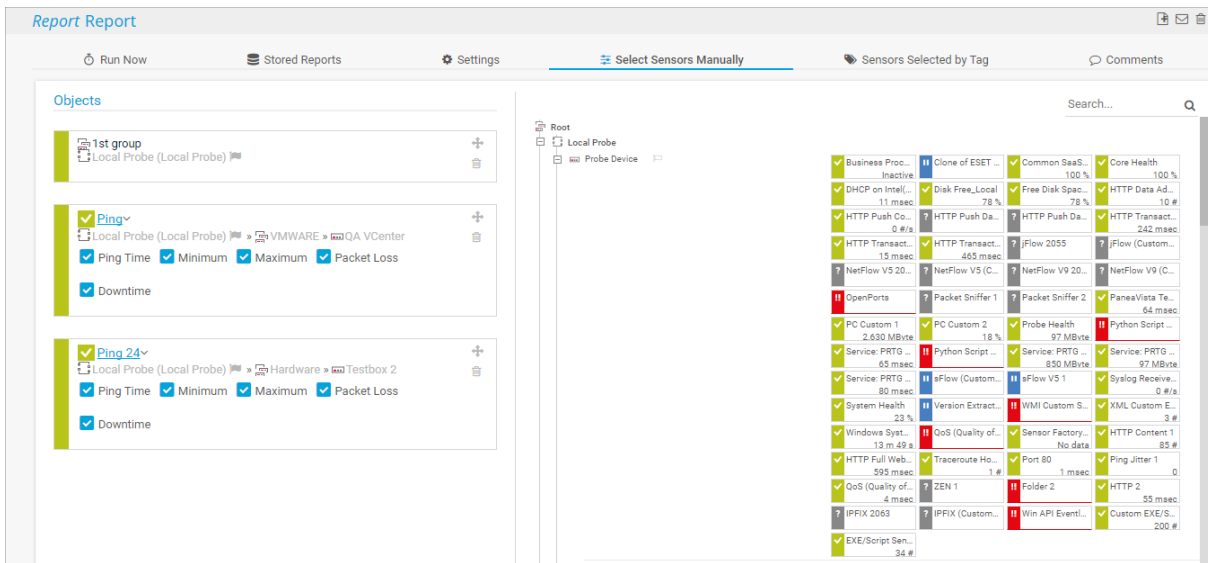
 Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

Select Sensors Manually

Click the Select Sensors Manually tab to manually add sensors that you want to include in the report.

You see a split screen: On the left side, there is a list of objects that the report already contains, and on the right side, you see your device tree. You can add objects to the report via drag-and-drop.

 You can also add a report via the [context menu](#)²⁵⁹ of an object. In this case, the selected object is automatically included in the report.



Manual Selection of Sensors

You can take the following actions:

Action	Description
Add items	<p>From the device tree on the right side, drag objects and drop them onto the list on the left side. You can add entire probes, groups, devices, or single sensors. PRTG adds each dropped object as a new list item.</p> <p>i The objects you drop on the left side are always added to the end of the list, you cannot directly add objects in a different order.</p>
Select channels	<p>If you add a sensor to the selection, you can specify the channels that the report includes. By default, PRTG selects all channels. To exclude a channel from the report, disable the check box in front of a channel name.</p> <p>i If you run PRTG in a cluster, you can only choose between single channels if you select a specific Cluster Node in the report settings. If you select All cluster nodes, the report contains only the primary channel of each sensor.</p>
Change order	<p>You can change the order of list items on the left side via drag-and-drop. Click + in the upper-right corner of a selected object, drag it to the desired position, and drop it there.</p>
Remove	<p>To remove any objects from the report, click 🗑 next to the respective list item, or select several list items while holding down the Ctrl key, then click 🗑.</p>

i PRTG automatically saves your selection. There is no undo function.

i The final report includes both manually selected sensors and sensors selected by tag.

Sensors Selected by Tag

Click the Sensors Selected by Tag tab to view all sensors that you added to the report by tag in section Included Sensors of the report settings. This is for your information only, you cannot change sensors here.

To edit the sensor selection, go to the Settings tab of the report and change the tags that the report uses to include sensors. Additionally, you can also exclude sensors with specific tags there.

For sensors that you add by tag, PRTG automatically includes all channels in the report unless you use a cluster and select All cluster nodes in the Cluster Node setting of the report. In this case, the report only includes the [primary](#) channel of each sensor.

 The final report includes both manually selected sensors and sensors selected by tag.

Comments

On the Comments tab, you can enter free text for each object. You can use this function for documentation purposes or to leave information for other users.

More

KNOWLEDGE BASE




What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Creating a PDF report does not work. What can I do?

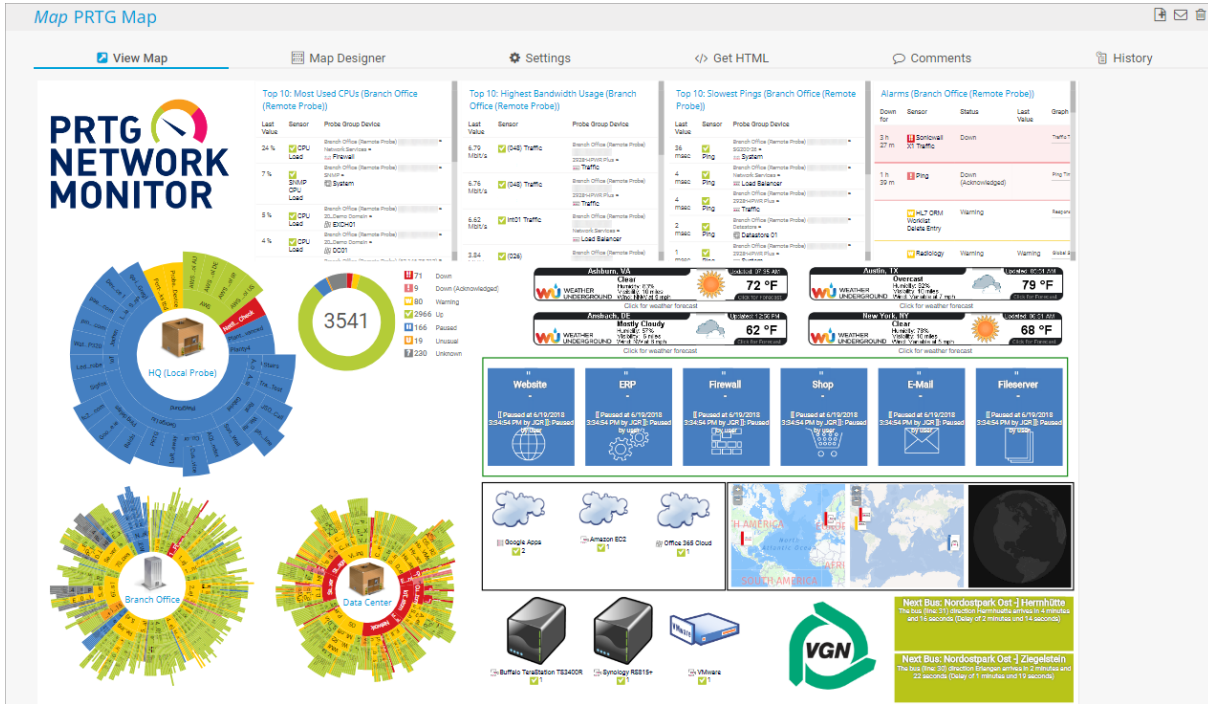
- <https://kb.paessler.com/en/topic/87084>

Reports

- [Reports Step by Step](#)  4075
- [Run Reports](#)  4079
- [Report Settings](#)  4083

8.11 Maps

With the **Maps** feature, you can create dashboards with monitoring information in a customizable layout. You can also make live data overviews publicly available.



Example of a Map

In this section:

- [Introduction](#) ⁴⁰⁹⁵
- [Maps Menu](#) ⁴⁰⁹⁶
- [Maps List](#) ⁴⁰⁹⁶
- [Maps in the Home Menu](#) ⁴⁰⁹⁷
- [Working with Maps](#)

Introduction

There are a lot of different options for the implementation of maps. For example, you can use this feature to:

- Create network maps with status icons for each device.
- Create views of your network that can be shown on network operations center screens.
- Create network overviews that you can publish on the intranet for colleagues or the management.
- Create custom views of the most important sensors in your monitoring setup.
- Create Top 10 lists of the sensors of a specific group or device.

Map Technology

In technical terms, a map is a common HTML web page. A map can consist of the following elements:

- Map items including device icons, sensor status icons, graphs, data tables, sensor lists, connection lines, geographical maps, or custom HTML code.
- An optional background image in JPG, PNG, or GIF format, for example, your company logo or a graphical view of your network.

Preconfigured Map

PRTG provides the preconfigured map [Sample Dashboard](#) that you can also edit or delete. The map is only visible to administrators. Define a lower [priority](#) [253] for the map to not show it under Home in the [main menu bar](#) [278].





Maps Menu

Click Maps in the main menu bar to open an overview list of all maps. Hover over Maps to show other options.

Option	Description
All	Open the Maps list where you can view or add custom views of your network status and monitoring data.
Add Map	Open a dialog to create [4099] a new map.
Select Map	Hover over Select Map to show a list of your maps. Click a map to open it.

Maps List

In the All view, you see a list of all maps. Click the name of a map to view it. Enable the check box next to a map and use the quick action buttons to perform the following actions:

- Map Rotation (): [Rotate](#) [4119] between maps.
- Clone (): Create a [clone](#) [4010] of this map.
- Delete (): Delete this map.
- Settings (): Open the map's [settings](#) [4114].

Hover over  and select Add Map from the menu to add a new map.

You can also define the priority of a map. Maps with a 5-star priority (★★★★★) appear in the main menu bar under Home so that you can directly select them. PRTG can show up to 10 entries in the Home menu.

 For more information, see section [Maps in the Home Menu](#) [4097].

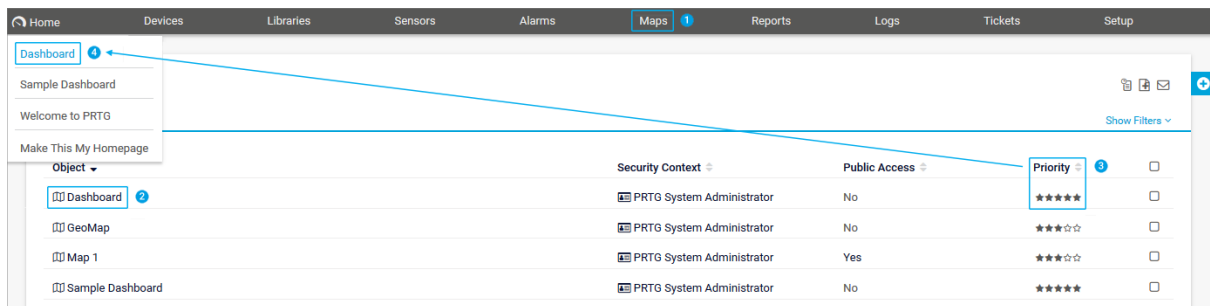
 See also sections [Working with Table Lists](#) [246] and [Multi-Edit](#) [4014].

Maps in the Home Menu

You can add any map to the Home menu in the main menu bar of the PRTG web interface. This way, you can gain quick access to your most important maps.

i If you open a map via the Home menu, it appears as a dashboard without the tabs that are available when you open a map via the Maps menu. Furthermore, in contrast to a map that you open via a URL, the map is embedded in the PRTG web interface with the global header area and page footer.

You can define whether a map appears in the Home menu via the priority setting. Every map with a 5-star priority (★★★★★) appears as a menu item under Home.



Add Map to Home Menu

1. Open the Maps overview via the main menu bar (1).
2. In the overview list, look for the map that you want to add to the Home menu (2).
3. In the Priority column, select ★★★★★ for the desired map (3).

The map appears in the Home menu (4). To immediately see the change, manually refresh the page with **F5**.

- i** You can include up to 10 map entries in the Home menu.
- i** PRTG provides a sample dashboard in the Home menu by default. You can remove the sample dashboard and other dashboards from the menu by changing their priority to ★★★★★ or lower.











Working with Maps

For detailed information on how to create and edit maps, and on how to make the maps available to other people, see the following sections:


- [Maps Step by Step](#) ⁴⁰⁹⁹
- [Map Designer](#) ⁴¹⁰³
- [Maps Settings](#) ⁴¹¹⁴
- [Map Rotation](#)

Advanced Procedures




- [Toplists](#) ⁴⁰⁰²
- [Move Objects](#) ⁴⁰⁰⁷

- [Clone Object](#)  4010
- [Multi-Edit](#)  4014
- [Create Device Template](#)  4019
- [Show Dependencies](#)  4023
- [Geo Maps](#)  4026
- [Notifications](#)  4031
- [Libraries](#)  4047
- [Reports](#)  4069
- [Maps](#)  4095
- [Setup](#)  4121

8.11.1 Maps Step By Step



 This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

To create and review a map, take the following steps:

- [Step 1: Add a Map](#)  4099
- [Step 2: Add Map Items](#)  4101
- [Step 3: View and Share the Map](#)  4101
- [Create Advanced Maps](#)

Step 1: Add a Map

First, you need to create a new map:

1. Click Maps in the [main menu bar](#)  285 to show an overview list of all maps.
2. Hover over  and select Add Map from the menu to open the Add Map dialog.

Add Map Dialog

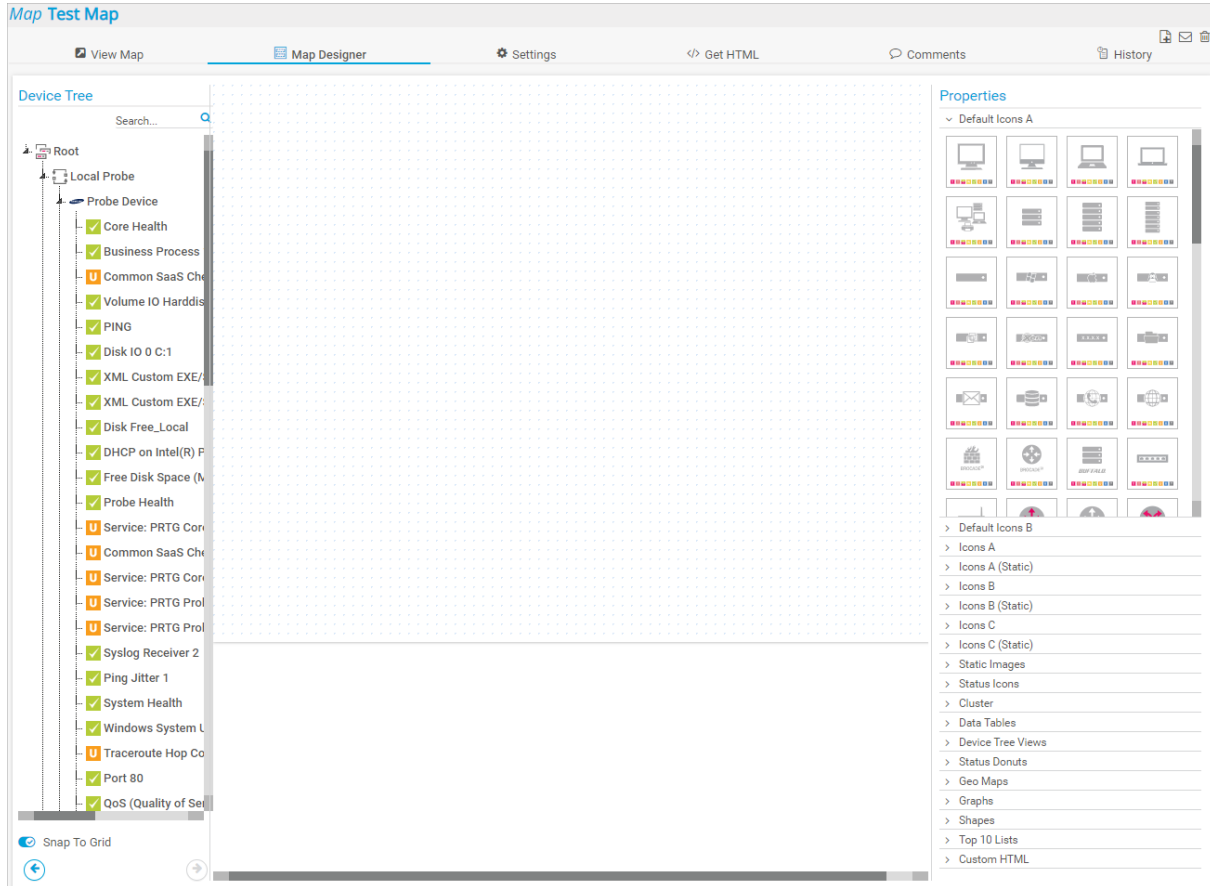
3. Enter a meaningful Map Name.
4. Enter the Map Width and the Map Height in pixels. Optionally, you can upload a background image.
5. In the Map Access section, define the accessibility to your map.
6. Click Create.

■ For more information, see section [Maps Settings](#)⁴¹¹⁴.

ⓘ When a user with administrative rights creates a new object, only other users with administrative rights can view or edit the new object by default. When a read/write user creates a new object, all members of the read/write user's primary group can view and edit the new object as well. This behavior applies to [libraries](#)⁴⁰⁴⁷, [maps](#)⁴⁰⁹⁵, [reports](#)⁴⁰⁶⁹, [notification templates](#)⁴¹³¹, and [schedules](#)⁴¹⁶⁹. For more information, see section [Access Rights Management](#)¹⁵⁵.

Step 2: Add Map Items

Because the new map is empty in the beginning, you need to add map items to fill the map with content.



Map Designer with Empty Map




1. When you create a new map, the Map Designer tab opens.
2. Select an object from the Device Tree section on the left.
3. Drag and drop an object from the Properties section on the right onto the map design area in the middle.
4. Select the new map item to edit its attributes in the Properties section.
5. Click Save.
6. Repeat this procedure as often as you wish until you added all desired items to the map.
7. Drag items to change their position. You can also draw connection lines between items.

For more information, see section [Map Designer](#) ⁴¹⁰³.

Step 3: View and Share the Map

You can always preview your map:

1. Click the View Map tab to show your map.

2. Click different object names to get more detailed information.
 It depends on the access rights of an object and the logged in user account if a user can get more detailed information about the object or if they get an error message that indicates insufficient access rights.
Map items of the type Data Tables also behave differently depending on the defined security context and the logged in user account.
3. Click the Get HTML tab to get a direct URL of your map that you can share with others.
4. You can also [add your map as a dashboard](#)  to the Home menu of the PRTG web interface.
5. You can change the interval until a new map appears. Hover over  in the lower-right corner and choose from 10s, 30s, 60s (seconds), 10m (minutes), and Refresh (now).

Create Advanced Maps

Maps provide the possibility to publish data from various sources. You can always use the default map items, or you can create completely customized maps in any design.

 For more information, see [More](#)  below.

More

KNOWLEDGE BASE

How can I show up-to-date weather information, webcam, and radar images in PRTG Maps?

- <https://kb.paessler.com/en/topic/9263>

Is it possible to nest a PRTG map in another one?

- <https://kb.paessler.com/en/topic/71833>

How can I display sensor data from various PRTG installations in a single map?

- <https://kb.paessler.com/en/topic/71932>

Can I use my own images/icons/logos in the PRTG map editor?





- <https://kb.paessler.com/en/topic/8043>

VIDEO TUTORIAL


Creating maps in PRTG

- <https://www.paessler.com/learn/videos/creating-maps>

Maps










- [Maps Step by Step](#) 
- [Map Designer](#) 
- [Maps Settings](#) 
- [Map Rotation](#) 

8.11.2 Map Designer

 This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

With the [Map Designer](#) feature, you can create custom web pages as maps, or dashboards, that represent your network.

In this section:

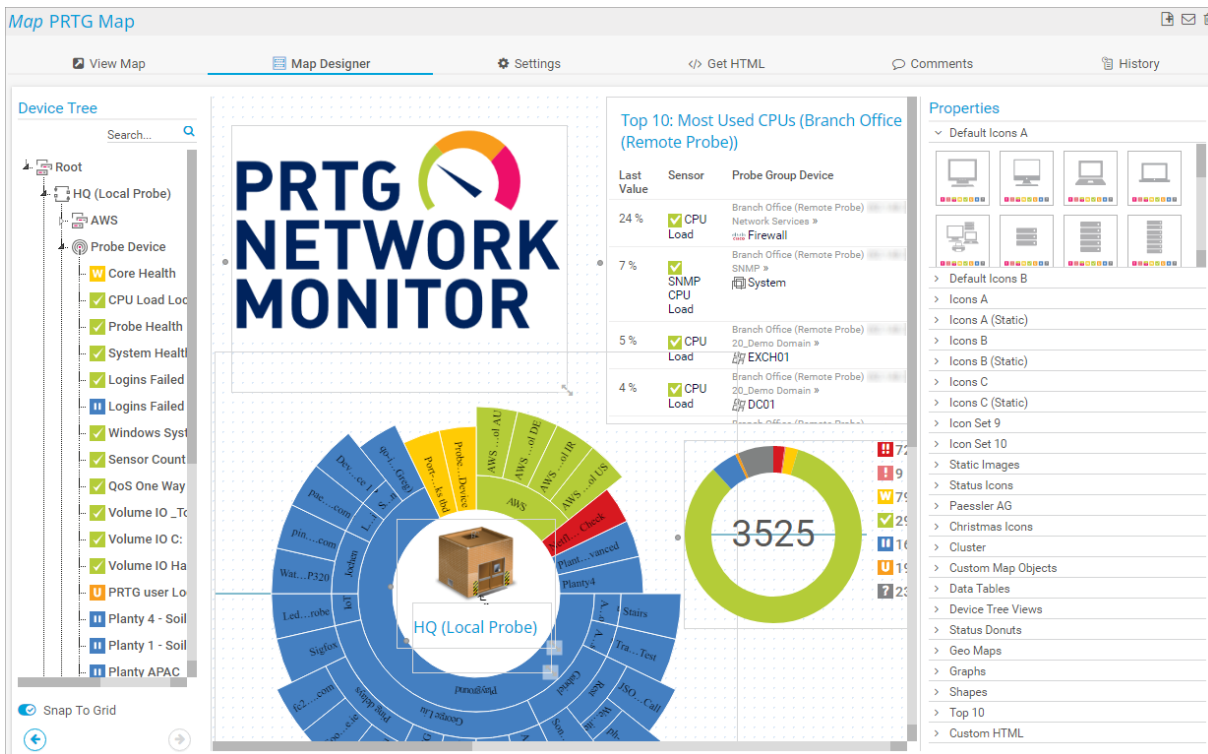
- [Browser Compatibility](#)  4103
- [Basic Design Concept](#)  4103
- [Device Tree Section](#)  4104
- [Properties Section](#)  4106
- [Properties Object Types](#)  4107
- [Edit Map Items](#)  4109
- [Draw Connection Lines Between Items](#)  4112
- [Snap To Grid](#)  4113
- [Undo and Redo](#)  4113
- [More](#)

Browser Compatibility

Because of the map designer's extensive scripting capability, it is important that you use a compatible browser when you edit maps. We recommend that you use Google Chrome 72. You can also use Mozilla Firefox 65 or Microsoft Internet Explorer 11. The map designer is **not** fully compatible with earlier versions of Internet Explorer, or Opera browsers.

Basic Design Concept

Click the Map Designer tab to open the map editor. It might take a few moments to load. Here, you can add or change map items to create your individual map.



Map Designer General Layout

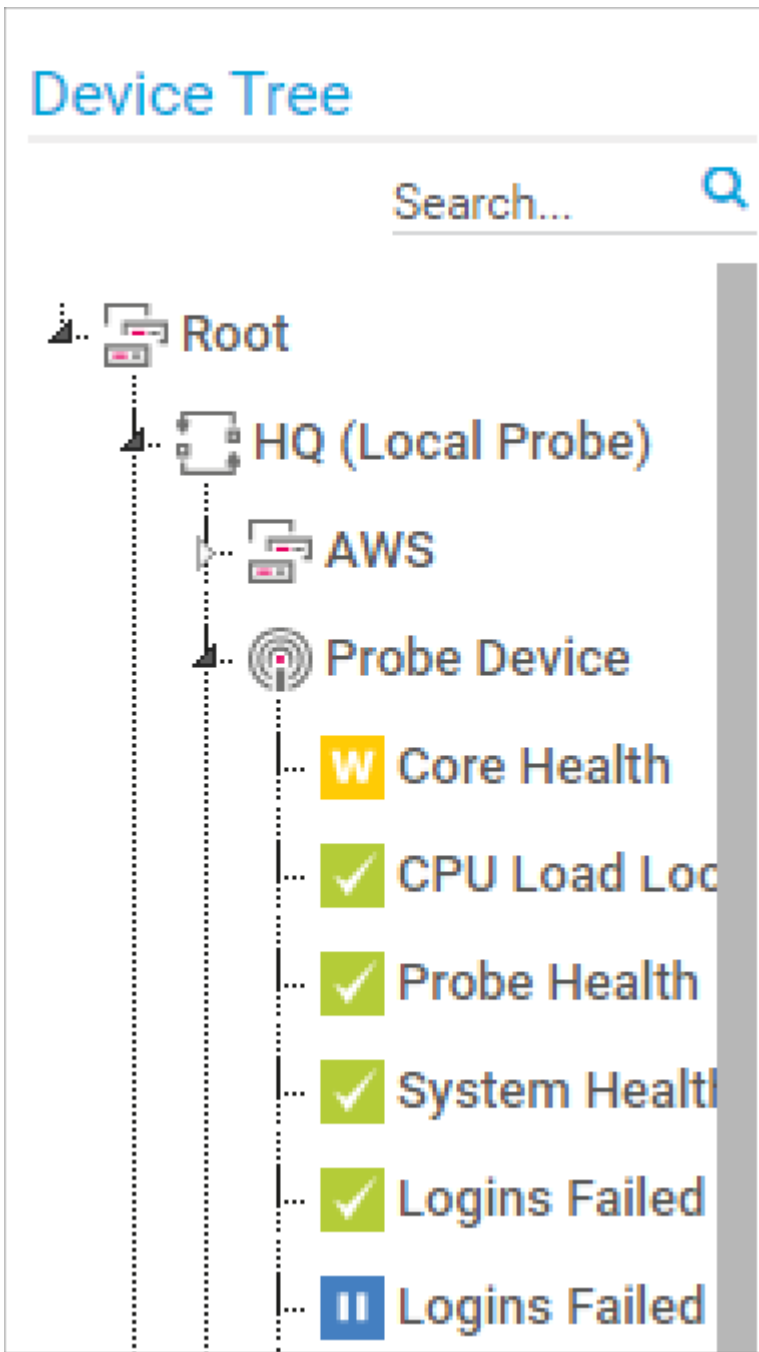
The map designer consists of three main sections:

- The Device Tree section on the left side. Here you can select the object whose data you want to show on the map.
- The map design area in the middle that has the size in pixels that you specified in the [map settings](#) ⁴¹¹⁵.
- The Properties section on the right side. Here you can define how a map item is displayed, for example, as an icon or a data table.

Drag and drop any object from either side onto the map, or double-click an object. You always see all changes immediately.

Device Tree Section

Use the Device Tree section to select the object whose data you want to show on the map. This can be a probe, a group, a device, or a single sensor.



Device Tree Section in the Map Designer

You can take the following actions:

Actions	Description
Find an object	<p>To find the desired object, you have the following options:</p> <ul style="list-style-type: none"> Click ► at the beginning of a line to expand objects in the device tree and show objects below probes, groups, and devices. Click ▲ to collapse the object again.

Actions	Description
	<ul style="list-style-type: none">▪ Enter a few characters into the Search box to search for names or parts of names of objects in your configuration. You immediately get the search results. Click X to clear your search.
Drag-and-drop	<p>You can always drag any object from the device tree onto a free area of the map to create a new map item.</p> <p>If you drag the object onto an existing map item, the displayed device tree object is replaced while the property and size stay the same.</p>
Double-click	<p>Double-click an object in the device tree to add a new map item.</p> <p>If you select a map item and double-click an object in the device tree, the map designer replaces the map item.</p>
Change size	<p>You can adapt the size of the Device Tree section. Drag the right border to the left to make the section smaller. To enlarge the section, drag the right border to the right.</p>

Properties Section

Use the Properties section to define how to display the map item, for example, as an icon, a map, a table, or a graph. Select the appearance of a map item from different categories.

Properties
> Default Icons A
> Default Icons B
> Icons A
> Icons A (Static)
> Icons B
> Icons B (Static)
> Icons C
> Icons C (Static)
> Static Images
> Status Icons
> Cluster
> Data Tables
> Device Tree Views
> Status Donuts
> Geo Maps
> Graphs
> Shapes
> Top 10 Lists
> Custom HTML

Properties Section in the Map Designer

You can take the following actions:

- Hover over an object to get a live preview of it, if available.
 - Drag an object onto a free area of the map to create a new map item. If you drag the object onto an existing map item, the property is replaced while the device tree object attributes and size stay the same.
 - Double-click an object to add it to the map, or select an existing map item and double-click an object to replace the map item.
- ⓘ If a specific Properties object is not available for a selected Device Tree object, you see a corresponding note in the live preview of the Properties object.

Properties Object Types

Many different object types are available. Click one of the categories to show all available types.

Object Type	Description
Default Icons A, Default Icons B	Choose from various icons that represent typical network devices in the style of the PRTG web interface. Default icons from category A also display object data. You can see the object name and a sensor overview for the object. This indicates how many sensors show a specific status. For some sensors, a mini graph is shown as well.
Icons A, Icons B, Icons C	Choose from various icons that represent typical network devices. Icons from this category also display object data. You can see the object name and a sensor overview for the object. This indicates how many sensors show a specific status. For some sensors, a mini graph is shown as well.
Icons A (Static), Icons B (Static), Icons C (Static)	Choose from the same icons as in the category described above. Here, only the icon is displayed without additional object data.
Static Images	<p>Choose from various free or public domain geographical maps from different sources.</p> <ul style="list-style-type: none"> i Use the category Geo Maps if you want to show geographical maps that include monitoring locations. i The items in this category are independent from the selected objects in the device tree.
Status Icons	<p>Choose from various sensor status icons in different styles. You can see the object name and a sensor overview for the object. This indicates how many sensors show a specific status. For some sensors, a mini graph is shown as well. Additionally, you can add traffic lights or the QR code of an object to your map. A map item for an audible alert that plays a sound when the number of alarms of the monitored object is > 0 is also available.</p> <ul style="list-style-type: none"> i Your browser must support playing embedded sounds for the status icon that includes an audible alert. <ul style="list-style-type: none"> ■ For more information, see the Knowledge Base: Which audible notifications are available in PRTG? Can I change the default sound? ■ If you experience issues with audible notifications in Google Chrome, see the Knowledge Base: Why are audible alerts in public maps not working in Chrome?
Cluster	<p>These map items are only available if you run PRTG in a cluster¹³⁵. Choose between a map and a status table.</p> <ul style="list-style-type: none"> i The Map item does not scale automatically. You need to manually enlarge the item in the map design area. i If you do not have a cluster, you only see white boxes instead of map previews.

Object Type	Description
Data Tables	Choose from various table lists [246] that show sensors for the selected object. You can also choose from several lists that only show sensors in a specific status.
Device Tree Views	Choose from various device tree views [190], including gauges [201] for the selected object.
Status Donuts	Choose from various status donuts that either show all alarms or all sensor states for the selected object. These are the same status donuts that you see on the Welcome [174] page.
Geo Maps	<p>These map items are only available if you enable the Geo Maps [4026] feature and enter location information in the selected device tree object's settings. Choose between a globe and a geographical map.</p> <p>i If the Geo Maps feature is disabled, you only see white boxes instead of map previews.</p>
Graphs	Choose from various graph styles that differ in font size and detail. You can also select graphs that include a legend or sensor states.
Shapes	<p>Choose from various geometrical shapes.</p> <p>i The items in this category are independent from the selected objects in the device tree.</p>
Top 10 Lists	<p>Choose from various tables that show the top 10 sensors in specific categories like the highest bandwidth usage or the best availability.</p> <p>i The items in this category are independent from the selected objects in the device tree.</p>
Custom HTML	<p>Use this property, for example, to add custom text [4111], external images, or applets to your map.</p> <p>Drag the item to the map design area and select it to edit [4109] it. You can then copy your custom code into the HTML Before and HTML After fields.</p>

Edit Map Items

Properties Section

Click a map item to select it. You can then edit its attributes in the upper part of the Properties section.

Properties

Top:	Left:	Width:	Height:	Layer:
100	50	350	460	2

External Link: Select object

HTML Before:

HTML After:

Edit Map Items in the Properties Section

Property	Description
Top Left	<p>Enter position values to directly position the item on the map. Enter a positive integer value.</p> <p>i You can also use the mouse to move a map item.</p>
Width Height	<p>Enter size values to give the item a predefined size. Enter a positive integer value.</p> <p>i You can also use the mouse to resize a map item.</p>
Layer	<p>Enter a layer value that defines if an item appears in front of or behind a different item if the items overlap. The item with the higher value appears in front. Enter a positive integer value.</p> <p>i You can also use the context buttons of a map item to bring it an item to the front (⬆) or send it back one layer (⬇).</p>
External Link	<p>Enter the address of any web page. If you click the map item while you view the map, PRTG opens the web page in a browser window. Enter the full URL of an external website, for example, https://www.paessler.com, or the address of a subpage of your PRTG installation, for example, devices.htm.</p> <p>i To make a map interactive, you need to define a suitable public access setting for the map.</p>
HTML Before HTML After	<p>Enter custom HTML code to embed an object in the map. Any HTML code you enter in these fields is added before or after the map item and your HTML object is inserted into the map. For example, you can enter <code></code> to insert an image of a Paessler logo.</p>

i Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

Context Buttons

Hover over a map item to show its context buttons.



Edit Map Items via Context Buttons

Context Button	Description
Bring to front	Move this item one layer to the front. This is useful when you add several items to a map that overlap each other.
Send to back	Move the item one layer to the back. This is useful when you add several items to a map that overlap each other.
Delete	<p>Delete the item.</p> <ul style="list-style-type: none"> The item is immediately deleted without notice. You cannot undo this action. You can also select the item and press the Delete key on your keyboard.
Drop Connections	Delete all connection lines <small>4112</small> to the item.

Cursor Keys

Select a map item and use the cursor keys to move the item one pixel at a time. Hold down the [Shift](#) key in combination with the cursor keys to move the object 10 pixels at a time.

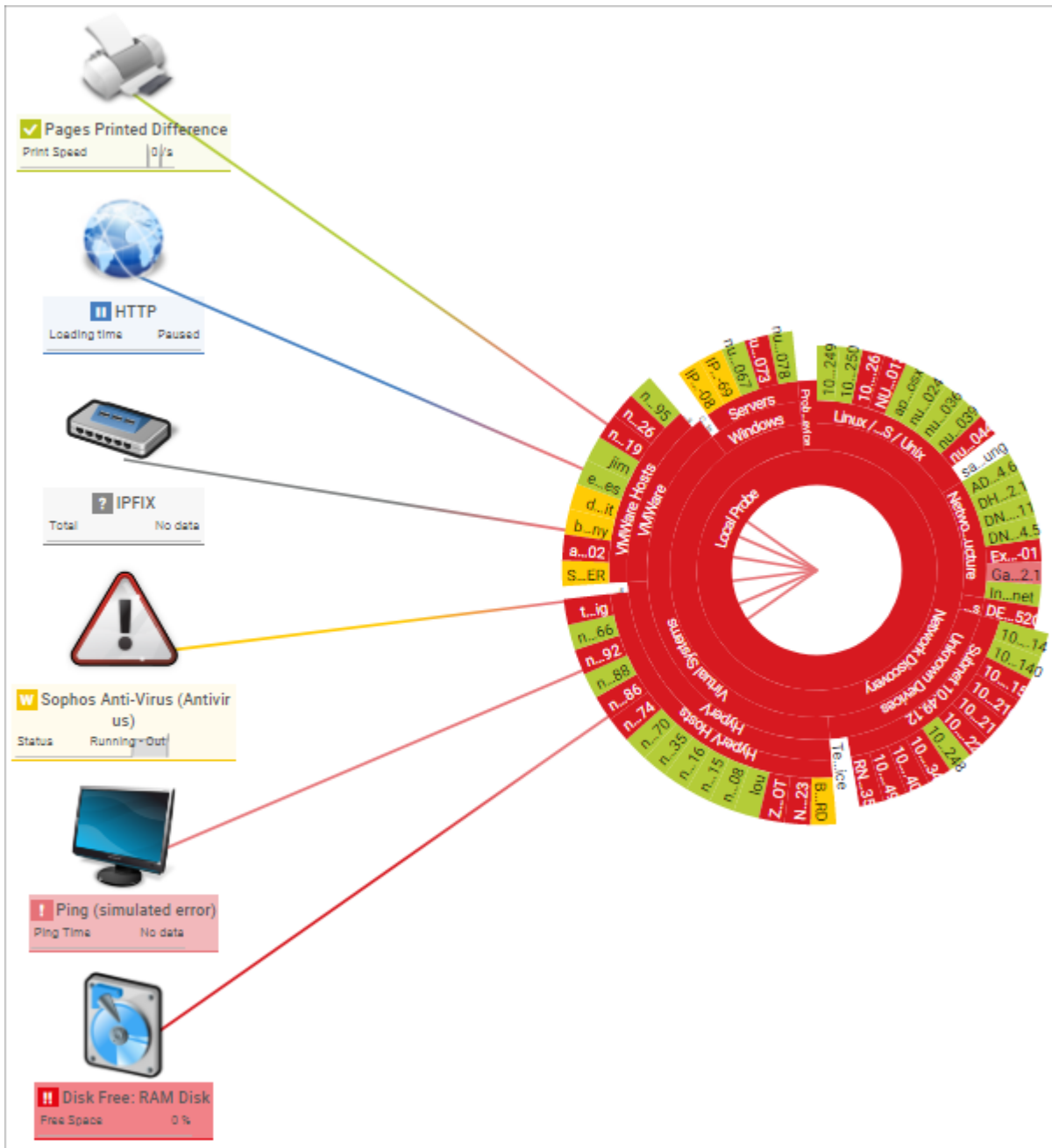
Add Custom Text

You can add custom text with individual styling to your map with the Custom HTML Element.


For more information, see the Knowledge Base: [How to add text to a map?](#)


Connection Lines between Map Items

You can draw connection lines between any map items via drag-and-drop to indicate, for example, network connections or a logical coherence between two items.





Map with Connection Lines

- Click the gray handle to the left of an item and drag it onto the item with which you want to create a connection to create a connection line.
- Hover over a connection line and click  to delete it.



 The map designer dynamically colors the lines between items depending on the [status](#)¹⁹⁷ of the linked objects. A line is red, for example, if the linked objects both show the Down status. Connection lines can also have two colors. For example, if one linked object shows the Down status and the second linked object shows the Warning status, one half of the line is red and the other half is yellow.

Snap to Grid

With the Snap To Grid setting, you can define how map items are positioned when you add or remove them via drag-and-drop.

Click  at the bottom of the Device Tree section to enable Snap To Grid so that you can only place items aligned with the grid. Click  to disable Snap To Grid to place map objects freely.

Undo and Redo

You can undo previous changes to the map and its items by clicking  (Ctrl+Z) at the bottom of the Device Tree section. To redo actions, click  (Ctrl+Y). You can undo and redo up to 50 changes when you work on a map. Because PRTG saves changes persistently in your configuration, you can even revert changes at a later point in time.

 Both buttons are only available if they can apply, otherwise they are grayed out.

More

KNOWLEDGE BASE

Which audible notifications are available in the PRTG web interface and in PRTG Desktop?

- <https://kb.paessler.com/en/topic/26303>

Why are audible alerts in public maps not working in Chrome?

- <https://kb.paessler.com/en/topic/83142>

How to add text to a map?

- <https://kb.paessler.com/en/topic/11523>

Why does my browser show an unresponsive script warning while loading the Map Designer?

- <https://kb.paessler.com/en/topic/19483>

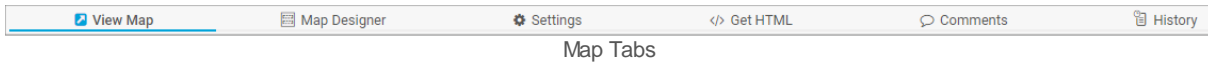
Maps

- [Maps Step by Step](#)⁴⁰⁹⁹
- [Map Designer](#)⁴¹⁰³
- [Maps Settings](#)⁴¹¹⁴
- [Map Rotation](#)⁴¹¹⁹

8.11.3 Maps Settings

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

Use the maps tabs to access all functionalities and settings of a map.



View Map

Click the View Map tab to show a preview of your map.

Map Designer

Click the Map Designer tab to edit the contents of your map.

■ For more information, see section [Map Designer](#) ⁴¹⁰³.

Settings

Click the Settings tab to open the general settings of a map.

i In the Add Map dialog, not all of these settings are available. You can change the settings later via the Settings tab.

Basic Map Settings

Setting	Description
Map Name	<p>Enter a meaningful name for the map.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited ¹⁴⁵.</p> <p>i It is not possible to enter tags with a leading plus (+) or minus (-) sign, nor tags with parentheses (()) or angle brackets (<>).</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>

Setting	Description
Security Context and Color Mode	<p>Define the security context that the map uses for access to monitoring data. Select a user account from the dropdown list to define which objects are visible on the map. The map only contains objects that the selected user has the rights^[155] to view. By default, the security context is the user account that creates the map.</p> <p>i Basically, the security context defines the minimum access rights to objects like libraries, reports, or maps, that a user account has. If the security context of an object is PRTG System Administrator, for example, every user sees all objects in a library, in a report, or on a map, no matter what the particular user access rights are.</p> <p>i This setting also affects the color mode^[4127] of public maps^[4116]. PRTG takes the color mode setting of the security context user account.</p>
Time Zone	<p>Define the time zone that the map uses for all date-related settings. Select a time zone from the dropdown list.</p>
Filter by Tag	<p>This setting applies to table map objects. Enter one or more tags separated by a space or comma to include sensors in map data tables. Only sensors that have one of the specified tags appear in the tables, including sensors that inherit^[142] tags from parent objects. Enter a string or leave the field empty.</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>i For some map objects, for example for sunburst and treemap objects, the tag filter applies only to probes, groups, and devices. If you only enter tags of sensors, these map objects do not appear on the map. Filtering sunburst and treemap objects with multiple tags might not work properly and is not officially supported.</p> <p>i Use this setting with caution because it affects all tables of the map.</p>

Map Layout

Setting	Description
Map Width	Define the width of the map in pixels. Enter an integer value.
Map Height	Define the height of the map in pixels. Enter an integer value.
Automatic Scaling	Define if you want the map to automatically adapt to your screen size:

Setting	Description
	<ul style="list-style-type: none"> Scale map view to fit browser size: The size of the map automatically adapts to the size of your screen. We recommend that you use this option if you display the map on different screens with different resolutions. <ul style="list-style-type: none"> i This setting does not apply to the map designer. Do not automatically scale map view: The map always uses the specified width and height settings.
Background Image	<p>Define if you want to use a background image for the map:</p> <ul style="list-style-type: none"> Use a background image: Use a custom background image, for example, your company logo. Do not use a background image: Use a background that shows the color that you define in the Background Color setting.
Custom Image	<p>This setting is only visible if you select Use a background image above. Click Select File and select an image from your system or network.</p> <ul style="list-style-type: none"> i PRTG only supports images in JPG, PNG, and GIF format. The file size must be smaller than 20 MB.
Background Color	<p>Select a background color for this map. Either enter a hex color code or choose a color from the color selector. The hex color code field always displays the defined color.</p>

Map Access

Setting	Description
Public Access	<p>Define who can view the map:</p> <ul style="list-style-type: none"> No public access: Do not allow public access to the map. Users who want to view the map first need to log in to PRTG. They also need sufficient access rights to the map. Allow public access: Allow access to the map via a unique URL. The URL contains a secret key that you can change. The map is an interactive public map. Allow public access but disable all links except for Geo Maps: Allow access to the map via a unique URL. The URL contains a secret key that you can change. If you select this option, all links on the map are disabled so that you get a non-interactive public map. <ul style="list-style-type: none"> i It is not possible to disable the links in map objects that contain an embedded geographical map⁴⁰²⁶. As a workaround, place an empty, transparent square object over the Geo Map object and link it to an unrelated URL.

Setting	Description
Secret Key	<p>PRTG displays maps with public access in the color mode defined for the security context user account.</p> <p>This setting is only visible if you select a public access option above. The secret key is automatically generated. It is part of the public URL for the map. You can also enter a customized string.</p> <p>We recommend that you use the default value.</p> <p>For more information on public access, see section Get HTML.</p> <p>The characters comma (,) and colon (:) are not allowed in the secret key field.</p>

Access Rights




Setting	Description
User Group Access	<p>Define the user groups that have access to the object. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> No access: Users in this user group cannot see or edit the object. The object does not show up in lists. Read access: Users in this user group can see the object and view its settings. Write access: Users in this user group can see the object and view and edit its settings. However, they cannot edit the object's access rights settings. Full access: Users in this user group can see the object, view and edit its settings, and edit its access rights settings. <p>You can create new user groups in the User Groups settings.</p>

Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

Get HTML

Your map is a standard HTML page. You can make it available to other people via a unique URL. Depending on the map's Public Access [setting](#), a visitor needs to provide login credentials for PRTG to view the map, or they immediately see the map.

You have different options to link to the map:

- Option 1: Link To The Map With Required Login
A user who wants to view the map via the shown URL first needs to log in to PRTG.
 In the URL, PRTG usually specifies the IP address under which the page is reachable. If a network address translation (NAT) is set in your firewall, or if you want to use a domain name or a name from a dynamic Domain Name System (DNS) service for public access, customize the URL according to your needs.
- Option 2: Link To The Map Without Login
People who want to view the map via the shown URL do not need login credentials. Allow public access to the map to make it available to the public.
 In the URL, PRTG usually specifies the IP address under which the page is reachable. If a NAT is set in your firewall, or if you want to use a domain name or a name from a dynamic DNS service for public access, customize the URL according to your needs.
- Option 3: Show the Map on Other Webpages via an Iframe
Here you can find the HTML code to embed an [iframe](#) in your web page. It includes a URL for direct access to the map. Allow public access to the map to make it available to the public.
 In the URL, PRTG usually specifies the IP address under which the page is reachable. If a NAT is set in your firewall, or if you want to use a domain name or a name from a dynamic DNS service for public access, customize the URL according to your needs.

Comments

On the Comments tab, you can enter free text for each object. You can use this function for documentation purposes or to leave information for other users.

History

On the History tab, all changes in the settings of an object are logged with a time stamp, the name of the user who made the change, and a message. The history log retains the last 100 entries.

Delete

You can delete a map at any time. To do so, click  in the upper-right corner of the screen.





More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Maps

- [Maps Step by Step](#)  4099
- [Map Designer](#)  4103
- [Maps Settings](#)  4114
- [Map Rotation](#)  4119

8.11.4 Map Rotation



With the [Map Rotation](#) feature, you can rotate between several maps on one page. This is similar to a slide show.

Map Rotation Setup

To configure your custom map rotation, take the following steps:

Object	Security Context	Public Access	Priority	
Magic Map	PRTG System Administrator	No	★★★★☆	<input checked="" type="checkbox"/>
Map	PRTG System Administrator	No	★★★★☆	<input type="checkbox"/>
Map 1	PRTG System Administrator	Yes	★★★★☆	<input checked="" type="checkbox"/>
Map 2	PRTG System Administrator	No	★★★★★	<input type="checkbox"/>
Map 3	PRTG System Administrator	No	★★★★☆	<input checked="" type="checkbox"/>
Global Status	PRTG System Administrator	No	★★★★☆	<input type="checkbox"/>
My Map	PRTG System Administrator	No	★★★★☆	<input type="checkbox"/>
Sample Dashboard	PRTG System Administrator	No	★★★★☆	<input type="checkbox"/>

Map Rotation Setup


1. Open the Maps overview from the main menu bar.
2. Select the maps that you want to rotate by enabling the check box next to the respective maps. The [multi-edit](#) menu appears.
3. Click .
4. PRTG now rotates the selected maps on a new page in a specific interval.
5. You can change the interval until a new map appears. Hover over  in the lower-right corner and choose from 10s, 30s, 60s (seconds), 10m (minutes), and Refresh (now).

 To view the maps that you specified for the map rotation, you need login credentials for PRTG.


Public Map Rotation

You can also set up a [public](#) map rotation that you can use without login credentials. For this purpose, you have to create a custom URL that includes the map IDs and the maps' secret keys.





1. In the Public Access [settings](#) of all maps that you want to include in the map rotation, select Allow public access. The Secret Key setting appears.
2. Note the secret keys of all maps that you want to include in the map rotation.
3. Find the map IDs and note them as well. To find the ID of a map, open the map with your browser. The map ID is included in the URL of the map as the value of the parameter `id`. In the URL <https://<yourprtgserver>/map.htm?id=2124>, for example, the number 2124 is the needed ID.

4. Create the public map rotation URL. The complete URL has the following format:
`https://yourprtgserver/public/mapshow.htm?ids=mapid1:secretkey1,mapid2:secretkey2,mapid3:secretkey3.`
 Make sure that you connect each map ID and the respective secret key with a colon, and that you separate each `mapid:secretkey` token from the next `mapid:secretkey` token with a comma.

This is an example URL for the public rotation of two maps with the map IDs 9507 and 9358:
<https://prtg.example.com/public/mapshow.htm?ids=9507:4049BEA1-B89C-4B5D-ACC4-3C8E00566EB8,9358:718D3CE1-DF00-4B92-AE8A-E0253B912C37>

5. Open the URL in your browser to start the public map rotation.
6. You can change the interval until a new map appears. Hover over  in the lower-right corner and choose from 10s, 30s, 60s (seconds), 10m (minutes), and Refresh (now).

Maps


- [Maps Step by Step](#)  4099
- [Map Designer](#)  4103
- [Maps Settings](#)  4114
- [Map Rotation](#)  4119

8.12 Setup

In the setup settings of the PRTG web interface, you can define almost all system settings for PRTG. However, you have to define some of the machine-oriented settings via two Windows administration tools (see section [Others](#) ⁴¹²² below).

Click Setup in the [main menu bar](#) ²⁸⁹ to show the available options.



 Some setup options are only available for PRTG on premises (marked with ) , so you cannot use these on PRTG Hosted Monitor instances.

 Some setup options are only available for PRTG Hosted Monitor (marked with ) , so you cannot use these on PRTG on premises instances.


Account Settings

- [My Account](#) ⁴¹²³
- [Notification Templates](#) ⁴¹³¹
- [Notification Contacts](#) ⁴¹⁶³
- [Schedules](#) ⁴¹⁶⁹

System Administration

- [Manage Subscription](#) ⁷⁰ 
- [User Interface](#) ⁴¹⁷⁵
- [Monitoring](#) ⁴¹⁸⁷
- [Notification Delivery](#) ⁴¹⁹⁴
- [Core & Probes](#) ⁴²⁰²
- [User Accounts](#) ⁴²¹¹
- [User Groups](#) ⁴²¹⁶
- [Administrative Tools](#) ⁴²²⁵
- [Cluster](#) ⁴²²⁸ 
- [Single Sign-On](#) ⁴²³²

PRTG Status

- [System Status](#) ⁴²³⁶
- [Cluster Status](#) ⁴²⁴⁸ 




License Information

- [License Information](#) ⁴²⁵¹ 

Auto-Update

- [Auto-Update](#)  

Optional Downloads



- [PRTG Desktop](#) 
- [PRTG Apps](#) 
- [Remote Probe Installer](#) 

Support












- [Help and Support Center](#) 
- [Contact Support](#)

Others

There are some settings that you have to make in the [PRTG Administration Tool](#) .

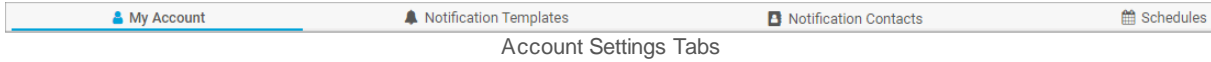
- For more information, see sections [PRTG Administration Tool on PRTG Core Server Systems](#)  and [PRTG Administration Tool on Remote Probe Systems](#) .

Advanced Procedures

- [Toplists](#) 
- [Move Objects](#) 
- [Clone Object](#) 
- [Multi-Edit](#) 
- [Create Device Template](#) 
- [Show Dependencies](#) 
- [Geo Maps](#) 
- [Notifications](#) 
- [Libraries](#) 
- [Reports](#) 
- [Maps](#) 
- [Setup](#) 

8.12.1 Account Settings

To open the account settings of the user, select Setup | Account Settings from the [main menu bar](#).
Select the various tabs to change the different settings.



You can define the following aspects of your account settings:

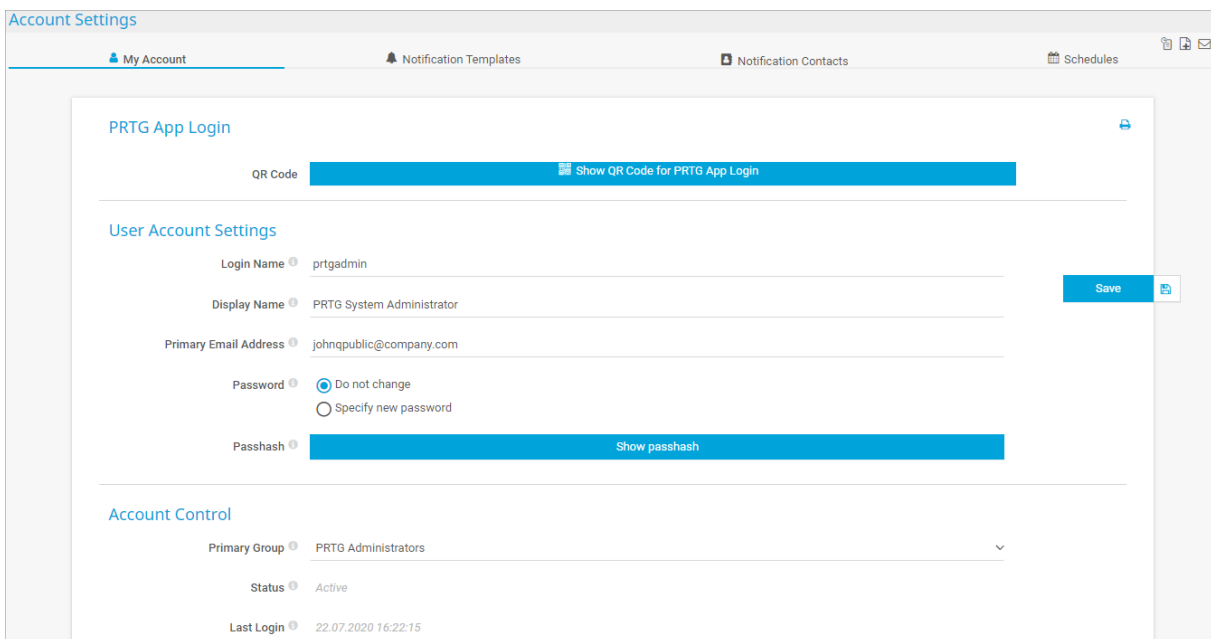
- [My Account](#)
- [Notification Templates](#)
- [Notification Contacts](#)
- [Schedules](#)

8.12.1.1 My Account

In the My Account settings, you can define and edit settings for the user account. All settings in this section are specific to the user account.

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

☁ If 15 minutes (900) seconds have passed since your last credential-based login and you open a system administration page from a different system administration page, PRTG asks you to enter your credentials again for security reasons. A dialog box appears. Enter your Login Name and Password and click OK to continue.

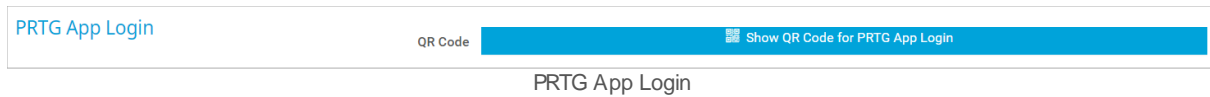


My Account Settings

My Account Settings

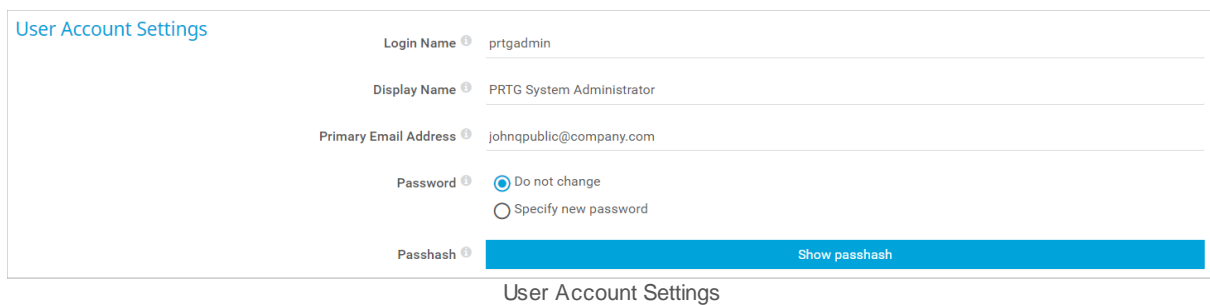
i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

PRTG App Login



Setting	Description
QR Code	Click Show QR Code for PRTG App Login to display the QR code and to copy your account settings to a PRTG app .

User Account Settings



Setting	Description
Login Name	<p>Enter a login name for the user account.</p> <p>i The login name must not contain the following invalid characters: " / \ [ ] : ; | = , + * ? < ></p> <p> This option is not available in PRTG Hosted Monitor.</p>
Display Name	<p>Enter a display name that you recognize. PRTG uses it for display purposes only, for example on the Welcome page.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>

Setting	Description
Primary Email Address	<p>Enter the primary email address. This is the email address that PRTG uses by default for the ticket system, including important system messages, and password recovery.</p> <p>i Make sure that your email client can show HTML emails, otherwise you cannot read emails from PRTG.</p>
Password	<p>Define whether to change the password for the user account:</p> <ul style="list-style-type: none"> Do not change Specify new password <p>i For security reasons, PRTG does not display the password.</p> <p>If you specify a new password, enter the old password, then enter the new password twice.</p> <p>i The new password must be at least 8 characters long. It must contain a number and a capital letter.</p> <p>i Do not use leading or trailing whitespaces in the new password.</p> <p>☁ This option is not available in PRTG Hosted Monitor.</p>
Passhash	<p>Click Show passhash to display the passhash for the user account. This is necessary for authentication for the PRTG API⁴³⁸⁹.</p> <p>i This setting is for your information only. You cannot change it.</p> <p>☁ This option is not available in PRTG Hosted Monitor.</p>

API Access

☁ These settings are only available in PRTG Hosted Monitor.

API Access

API User Name ⓘ johnqpublic@company.com

API Passhash ⓘ Show passhash

Generate API Passhash ⓘ Generate new passhash

API Access

Setting	Description
API User Name	Shows the API user name of the user account. This is necessary for authentication for the PRTG API.

Setting	Description
	<p>i This setting is for your information only. You cannot change it.</p>
API Passhash	<p>Click Show passhash to display the API passhash of the user account. This is recommended for authentication for the PRTG API.</p> <p>i This setting is for your information only. You cannot change it.</p>
Generate API Passhash	<p>Click Generate new passhash to reset the API passhash of the user account.</p>

Account Control

Account Control	
Primary Group i	PRTG Administrators
Status i	Active
Last Login i	24.03.2021 09:55:05

Account Control

Setting	Description
Primary Group	<p>This setting is only visible to administrators. Select the primary group for the user account from the dropdown menu.</p> <p>i Every user account must be a member of a primary group to make sure there is no user account without group membership. Membership in other user groups is optional.</p> <p>i You cannot change the primary group of Active Directory users. Users that you add via Active Directory integration can only have the respective Active Directory group as their primary group.</p>
Status	<p>i This setting is for your information only. You cannot change it.</p>
Last Login	<p>Shows the time stamp of the last login of the user account.</p> <p>i This setting is for your information only. You cannot change it.</p>

Group Membership

Group Membership

Member of ⁱ

▼ User Group Name

PRTG Administrators

PRTG Users Group

User Group1

Group Membership

Setting	Description
Member of	<p>Shows the user groups that the user account is a member of. You can define access rights to device tree objects, libraries, maps, reports and the ticket system at group level.</p> <p>ⁱ This setting is for your information only. You cannot change it.</p>

Web Interface

Web Interface

Automatic Refresh ⁱ Automatically refresh pages (recommended)
 Do not automatically refresh pages

Refresh Interval (Sec.) ⁱ

Audible Alarms ⁱ Do not play audible alarms
 Play audible alarms on dashboard pages only
 Play audible alarms on all pages

Home Page URL ⁱ



Time Zone ⁱ

Date Format ⁱ

Color Mode ⁱ Light
 Dark


Web Interface

Setting	Description
Automatic Refresh	<p>Define if you want PRTG to automatically reload web pages in the PRTG web interface for the user:</p> <ul style="list-style-type: none"> Automatically refresh pages (recommended): PRTG automatically refreshes single page elements on web pages in the PRTG web interface. Do not automatically refresh pages: PRTG does not automatically refresh web pages in the PRTG web interface.
Refresh Interval (Sec.)	<p>This setting is only visible if you select Automatically refresh pages (recommended) above. Enter the number of seconds that PRTG waits between two refreshes. We recommend that you use 30 seconds or more. The minimum value is 20 seconds.</p> <p>i Shorter refresh intervals create more CPU load on the probe system. If you experience load issues while using the PRTG web interface (or maps), set a longer refresh interval.</p>
Audible Alarms	<p>Define whether PRTG plays an audible alarm on web pages in the PRTG web interface when there is a new alarm:</p> <ul style="list-style-type: none"> Do not play audible alarms: PRTG does not play sound files on any web pages. Play audible alarms on dashboard pages only: When there is a new alarm, PRTG plays a predefined sound on dashboard pages only. The sound is played with every refresh of the dashboard page if there is at least one new alarm. Play audible alarms on all pages: When there is a new alarm, PRTG plays a predefined sound on all web pages. PRTG plays the sound with every page refresh if there is at least one new alarm. <p>i PRTG only plays audible alarms if the New Alarms value in the global header area of the PRTG web interface is greater than 0 after a page refresh. PRTG does not consider the number of old alarms.</p> <p>■ For more information, see the Knowledge Base: Which audible notifications are available in PRTG? Can I change the default sound? and Why are audible alerts in public maps not working in Chrome?</p>
Home Page URL	<p>Define the user's default home page in the PRTG web interface. This is the page that the user sees after logging in or when selecting Home from the main menu. Enter a PRTG-internal web page.</p>
Time Zone	<p>Define the time zone for the user account. Depending on the time zone that you select, PRTG shows the local time zone of the user account in all data tables and graph legends.</p> <p>i PRTG receives the Coordinated Universal Time (UTC) from the system time of the PRTG core server for this purpose.</p>


Setting	Description
	<p> If you get a warning message about differing time zones, see the Knowledge Base: Why do I get a warning message when time zones differ?</p>
Date Format	<p>Select the date format for the user from the dropdown menu:</p> <ul style="list-style-type: none"> ▪ Use System Settings: Use the date format of the PRTG core server system. ▪ DD.MM.YYYY HH:MM:SS (24h) ▪ DD.MM.YYYY HH:MM:SS (A.M./P.M.) ▪ MM/DD/YYYY HH:MM:SS (24h) ▪ MM/DD/YYYY HH:MM:SS (A.M./P.M.) ▪ YYYY-MM-DD HH:MM:SS (24h) ▪ YYYY-MM-DD HH:MM:SS (A.M./P.M.) <p> This setting takes effect after the next login.</p>
Color Mode	<p>Select a color mode for the PRTG web interface:</p> <ul style="list-style-type: none"> ▪ Light ▪ Dark

Ticket System

Ticket System

Email Notifications 
 Receive an email when a ticket changes
 Do not receive any emails from the ticket system

Ticket System

Setting	Description
Email Notifications	<p>Define if the user receives emails from the ticket system:</p> <ul style="list-style-type: none"> ▪ Receive an email when a ticket changes: The user receives an email each time a ticket is assigned to the user or to the user group they are a member of, or if a ticket is changed. <ul style="list-style-type: none">  If the user edits tickets that are assigned to them or the user group they are a member of, or if they assign a ticket to themselves or their user group, they do not get an email. ▪ Do not receive any emails from the ticket system: The user does not receive any emails from the ticket system.

 Save your settings. If you leave the page, all changes to the settings are lost.

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Which audible notifications are available in the PRTG web interface and in PRTG Desktop?

- <https://kb.paessler.com/en/topic/26303>






















Why are audible alerts in public maps not working in Chrome?

- <https://kb.paessler.com/en/topic/83142>

Why do I get a warning message when time zones differ?

- <https://kb.paessler.com/en/topic/81306>

Setup

- [Account Settings](#)  4123
 - [My Account](#)  4123
 - [Notification Templates](#)  4131
 - [Notification Contacts](#)  4163
 - [Schedules](#)  4168
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 - [Notification Delivery](#)  4194
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 - [User Accounts](#)  4211
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- [License Information](#)  4251
- [Auto-Update](#)  4257
- [Optional Downloads](#)  4262

- [Help and Support Center](#) ⁴²⁸⁴
- [Contact Support](#) ⁴²⁸⁶

Others

There are some settings that you must make in the [PRTG Administration Tool](#) ⁴³⁴⁶. For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#) ⁴³⁴⁷
- [PRTG Administration Tool on Remote Probe Systems](#) ⁴³⁷¹

8.12.1.2 Notification Templates

In the Notification Templates settings, you can define and edit user account-specific notifications. You can use notification templates to trigger notifications for specific [sensor states](#) ¹⁹⁷ and values.

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.







☁ If 15 minutes (900) seconds have passed since your last credential-based login and you open a system administration page from a different system administration page, PRTG asks you to enter your credentials again for security reasons. A dialog box appears. Enter your Login Name and Password and click OK to continue.

Object	Actions	Active/Paused
Add Entry to Event Log	[Icon]	Active
Amazon SNS Message (paused)	[Icon]	Paused
Assign Ticket	[Icon]	Active
Email to Admin	@	Active
Execute HTTP Action (paused)	://	Paused
Execute Program	[Icon]	Active
Microsoft Teams Message	[Icon]	Active
Push Notification	[Icon]	Active
Slack Message (paused)	[Icon]	Paused
SMS/Pager Message	[Icon]	Active
SNMP Trap	[Icon]	Active
Syslog Message	[Icon]	Active
MQTT Publish Notification	[Icon]	Active

Notification Templates Tab







In this section:



- [Note](#) ⁴¹³²




- [Overview](#) 
- [Notification Template Settings](#) 
- [Basic Settings](#) 
- [Notification Summarization](#) 
- [Access Rights](#) 
- [Notification Methods](#) 

Note

You have to take the following four steps to set up and use notifications:

1. Check and set up the [notification delivery](#)  settings if you use PRTG on premises. These settings define how PRTG sends messages.
2. Check and set up [notification contacts](#)  for the user accounts. These contacts define the recipients to which PRTG sends notifications.
3. Check and set up several [notification templates](#) . These templates define the notification methods and their content.
 -  You can also check or edit notification templates via the Notification Triggers tab. For more information, see section [Notification Triggers Settings](#) .
4. Check and set up [notification triggers settings](#)  for objects. These triggers define when PRTG sends notifications.



 Usually, there are three successive attempts to deliver a notification. If all of these attempts fail, the notification is lost. To never miss a notification, we recommend that you always set up at least two notifications with different notification methods for a notification trigger, for example, one email notification and one SMS notification. If delivery via email fails, PRTG can still notify you via smartphone as a fallback. For example, use the latency setting of a [state trigger](#)  to choose a notification with a different notification method than in the first trigger condition, or set up a second trigger with a different notification method for the corresponding object.







 See sections [Notifications Based on Sensor Limits Step by Step](#)  and [Notifications Based on Libraries Step by Step](#)  for step-by-step guides that describe potential notification setups.





 Custom notification scripts are also available in the [PRTG Sensor Hub](#).

Overview

Click the Notification Templates tab to show a list of all notification templates, what actions they perform, and their status (active or paused). To edit a notification template, enable the check box next to the notification template and choose from the following options.


Option	Description
Send test notification ()	Triggers the notification immediately for testing purposes.  When you test notifications, PRTG does not resolve the placeholders, but rather sends the original variables instead.

Option	Description
Used by 	Show all objects that trigger the notification.
Pause 	Pauses the notification. ⓘ If you manually pause ²⁵⁶ a notification, PRTG does not send messages when this notification is triggered.
Resume 	Resumes the notification.
Clone 	Creates a clone of the notification.
Delete 	Deletes the notification. ⓘ You cannot delete predefined notifications.
Settings 	Opens the settings ⁴¹³³ of a notification template.

ⓘ You can also use the quick action buttons Send test notification () , Used by () , Pause () or Resume () next to the status of a notification template.

■ See also sections [Working with Table Lists](#) ²⁴⁶ and [Multi-Edit](#) ⁴⁰¹⁴.

Notification Template Settings

Hover over  and select Add Notification Template from the menu to add a new notification template. You can also click the name of a notification template to edit it.

ⓘ When a user with administrative rights creates a new object, only other users with administrative rights can view or edit the new object by default. When a read/write user creates a new object, all members of the read/write user's primary group can view and edit the new object as well. This behavior applies to [libraries](#) ⁴⁰⁴⁷, [maps](#) ⁴⁰⁹⁵, [reports](#) ⁴⁰⁶⁹, [notification templates](#) ⁴¹³¹, and [schedules](#) ⁴¹⁶⁹. For more information, see section [Access Rights Management](#) ¹⁵⁵.

Basic Settings

Basic Settings

Template Name ⓘ Notification Template

Tags ⓘ +

Status ⓘ Started
 Paused

Schedule ⓘ None

Notification Handling during Scheduled Pause ⓘ Collect notifications and send them when reactivated
 Discard notifications during paused status

Basic Settings

Setting	Description
Template Name	<p>Enter a meaningful name for the notification template.</p> <p> ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited¹⁴⁵.</p> <p> ⓘ For performance reasons, it can take some minutes until you can filter for new tags that you added.</p>
Status	<p>Select the status of the notification template:</p> <ul style="list-style-type: none"> ▪ Started: PRTG executes the notifications that are defined in the notification template whenever it is triggered. ▪ Paused: PRTG does not execute any notifications that are defined in the notification template.
Schedule	<p>Define if you want to use a schedule to activate a notification template only during specific time spans. This way you can pause notifications, for example, during regular maintenance periods or system restarts. Choose between:</p> <ul style="list-style-type: none"> ▪ None ▪ Saturdays ▪ Sundays ▪ Weekdays

Setting	Description
	<ul style="list-style-type: none"> ▪ Weekdays Eight-To-Eight (08:00 - 20:00) ▪ Weekdays Nights (17:00 - 09:00) ▪ Weekdays Nights (20:00 - 08:00) ▪ Weekdays Nine-To-Five (09:00 - 17:00) ▪ Weekends <p>i The overall status of the notification template must be Started to apply any schedule settings.</p> <p>■ For more information, see section Schedules ⁴¹⁶².</p>
Notification Handling during Scheduled Pause	<p>Define how PRTG handles notifications that are triggered during a scheduled pause.</p> <ul style="list-style-type: none"> ▪ Collect notifications and send them when reactivated: PRTG collects all notifications that are triggered during a scheduled pause and sends them all out once the paused status ends. ▪ Discard notifications during paused status: PRTG discards all notifications that are triggered during a scheduled pause. <p>i If you manually pause a notification, PRTG does never collect notifications that are triggered while the notification is paused.</p>

Notification Summarization

Notification Summarization

Method **i**

- Always notify ASAP, never summarize
- Send first DOWN message ASAP, then summarize
- Send first DOWN and UP message ASAP, then summarize
- Send all DOWN messages ASAP, summarize the others
- Send all DOWN and UP messages ASAP, summarize the others
- Always summarize messages, regardless of type

Subject for Summarized Email or SNS Messages **i** [%sitename] %summarycount Summarized Notifications

Time Span for Summarizing Messages (in Minutes) **i** 1

Notification Summarization

Setting	Description
Method	<p>Define if and how PRTG collects and summarizes several notifications into one or more messages with a maximum of 1,000 characters. Choose from:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ Always notify ASAP, never summarize: PRTG always sends out one notification for each notification trigger that it receives as soon as possible, for example, immediately. ▪ Send first DOWN message ASAP, then summarize: When PRTG receives several DOWN triggers, it sends the first notification immediately, then it continues to summarize notification triggers into one message, regardless of the sensor status. ▪ Send first DOWN and UP message ASAP, then summarize: When PRTG receives several DOWN or UP triggers, it sends each first notification immediately, then it continues to summarize notification triggers into one message, regardless of the sensor status. ▪ Send all DOWN messages ASAP, summarize the others: When PRTG receives several DOWN triggers, it sends out one notification for each trigger that it receives, but it summarizes notifications for all non-DOWN triggers into one message. ▪ Send all DOWN and UP messages ASAP, summarize the others: When PRTG receives several DOWN or UP triggers, it sends out one notification for each trigger that it receives, but it summarizes the notifications for all non-DOWN and non-UP triggers into one message. ▪ Always summarize notifications, regardless of type: When PRTG receives several notification triggers, it summarizes the notifications, regardless of the kind of trigger that it receives. <ul style="list-style-type: none"> ⓘ The maximum number of notifications (see below) still applies. ⓘ Regardless of the option that you choose, PRTG never summarizes notifications of the types Send Slack Message, Send Microsoft Teams Message, Execute HTTP Action, Execute Program, and Assign Ticket because it always sends them immediately. PRTG can summarize the messages of all other notification types. ⓘ 'first DOWN' and 'first UP' messages refer to the trigger condition and the clear condition respectively. You can also define 'WARNING' or 'UNUSUAL' states as trigger conditions or even thresholds or other triggers notification summarizations. The condition clear triggers, if applicable, are defined in the respective trigger conditions as well. The triggers all qualify as "first DOWN" or "first UP" messages. ⓘ PRTG collects up to 25 single notifications for one summarization and sends out the message as soon as this number is reached (or when the gathering time passes). If PRTG receives more than 25 notifications within the defined time span, you receive more than one message with up to 25 entries each. For example, if PRTG collects 74 notifications, this results in 3 summarized messages with 25, 25, and 24 collected notifications.
Subject for Summarized Email or SNS Messages	Define a subject that PRTG includes when it sends summarized notifications. The default subject is <code>[%sitename%] %summarycount Summarized Notifications</code> .

Setting	Description
	<p>i PRTG only uses the subject for the notification methods Send Email and Send Amazon Simple Notification Service Message.</p> <p>■ You can use placeholders. For more information, see section List of Placeholders for Notifications ⁴⁶⁶².</p>
Time Span for Summarizing Messages (in Minutes)	<p>Define a time span in minutes to define how long PRTG collects notifications for summarization. Enter an integer value.</p> <p>i If you enter a long time span, for example, 60 minutes, PRTG collects notifications for one hour before it sends them out summarized unless other features (see above) require an earlier message dispatch.</p>

Access Rights


Access Rights	
User Group Access ⁱ	Rights
User Group	
RO User Group	No access
PRTG Users Group	No access

Access Rights


















Setting	Description
User Group Access	<p>Define the user groups that have access to the notification template. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ No access: Users in this user group cannot see or edit the notification template. The object does not show up in lists. ▪ Read access: Users in this user group can see the notification template and view its settings. ▪ Write access: Users in this user group can see the notification template and view and edit its settings. However, they cannot edit its access rights settings. ▪ Full access: Users in this user group can see the notification template, view and edit its settings, and edit its access rights settings. <p>i You can create new user groups in the User Groups ⁴²¹⁹ settings.</p>

Notification Methods



With the following settings, you can add one or more methods for how PRTG sends out a notification message. You can choose one method or combine several methods. Whenever the notification is triggered, PRTG sends out messages or performs actions for all configured methods at once.

To select a notification method, click  in front of it. You can then see and set the options as described in this section. The following notification methods are available.

 Some notification types are only available for PRTG on premises (marked with ). You cannot use these on PRTG Hosted Monitor instances.

- [Send Email](#)  
- [Add Entry to Event Log](#)  
- [Send SMS/Pager Message](#) 
- [Execute HTTP Action](#) 
- [Execute Program](#)  
- [Send Syslog Message](#)  
- [Send SNMP Trap](#)  
- [Send Amazon Simple Notification Service Message](#) 
- [Assign Ticket](#) 
- [Send Push Notification](#) 
- [Send Microsoft Teams Message](#) 
- [Send Slack Message](#) 
- [Send MQTT Publish Notification](#)

Send Email @

 This notification method uses notification contacts to deliver the email notifications. Set up notification contacts in advance in the [notification contacts](#)  settings.

Send Email

Sender Default
 Custom

Send to User, Send to User Group, and Send to Email Address all work simultaneously. Every user, user group, or email address that you define here all receive the email notifications.

Send to User

Send to User Group

Send to Email Address

Subject

Format HTML
 Text
 Custom text







Priority

HTTP Version HTTP 1.1 (default)
 HTTP 1.0

Send Email

Setting	Description
Sender	<p>Define which sender email address and sender name appear in the FROM part of the email notifications:</p> <ul style="list-style-type: none"> ▪ Default: Use the default sender email address and sender name from the notification delivery settings. ▪ Custom: Enter a custom sender email address and sender name.
Sender Email Address	<p>This setting is only visible if you select Custom above. Enter an email address to use as the sender of the email notifications.</p> <p>i If you enter a custom sender email address, it overrides the email address in the notification delivery settings.</p> <p>i The outgoing Simple Mail Transfer Protocol (SMTP) server in the notification delivery settings must allow the email address so that it can deliver email notifications.</p>
Sender Name	<p>This setting is only visible if you select Custom above. Enter a sender name to use as the sender of the email notifications.</p> <p>i If you enter a custom sender name, it overrides the sender name in the notification delivery settings.</p>
Send to User	<p>Select a user account to send the email notifications to. PRTG sends the email notifications to every active email notification contact for this user account. Leave None to not use this option.</p> <p>i Read/write users can send notifications to any user that is a member of the same user group as the read/write user.</p>

Setting	Description
Send to User Group	<p>i Send to User, Send to User Group, and Send to Email Address all work simultaneously. Because of this, you can define more than one user as a recipient of this notification. PRTG sends the email notifications to the active email notification contacts⁴¹⁶⁵ of the user that you select, to the active email notification contacts of all members of the user group that you select, and to all email addresses that you enter under Send to Email Address.</p> <p>Select a user group to send the email notifications to all members of this user group. PRTG sends the email notifications to every active email notification contact⁴¹⁶⁵ of every user in the user group. Leave None to not use this option.</p> <p>i If you select a user group and a specific member of this user group as recipients, the user only receives one single email. This also applies if you enter an individual email address under Send to Email Address that is already defined as an email notification contact of the selected user.</p> <p>i If you define individual email addresses under Send to Email Address, define a specific user account under Send to User, and define a user group here, PRTG sends the message to the individual email addresses, to the individual user, as well as to the members of the selected user group. In all cases, PRTG sends one message with all recipients in the To part of the email.</p> <p>i Read/write users can send email notifications to all user groups that they are members of.</p> <p>i Send to User, Send to User Group, and Send to Email Address all work simultaneously. Because of this, you can define more than one user as a recipient of this notification. PRTG sends the email notifications to the active email notification contacts⁴¹⁶⁵ of the user that you select, to the active email notification contacts of all members of the user group that you select, and to all email addresses that you enter under Send to Email Address.</p>
Send to Email Address	<p>Enter one or more email addresses to which PRTG sends the email notifications. If you enter more than one email address, separate them with commas. Leave this field empty to only send email notifications to the email notification contacts of the user or to the members of the user group you choose above.</p> <p>i We recommend that you use Send to User and/or Send to User Group instead because you can then manage the notification contacts of users.</p> <p>i Send to User, Send to User Group, and Send to Email Address all work simultaneously. Because of this, you can define more than one user as a recipient of this notification. PRTG sends the email notifications to the active email notification contacts⁴¹⁶⁵ of the user that you select, to the active email notification contacts of all members of the user group that you select, and to all email addresses that you enter under Send to Email Address.</p>

Setting	Description
Subject	<p>Enter the subject of the email notifications. The default subject is [%sitename] %device %name %status %down (%message).</p> <p> You can use placeholders. For more information, see section List of Placeholders for Notifications .</p>
Format	<p>Define the kind of email that PRTG sends when the notification is triggered:</p> <ul style="list-style-type: none"> ▪ HTML: PRTG uses the default HTML email template for the message part of the email. ▪  Make sure that your email client can show HTML emails, otherwise you cannot read emails from PRTG. ▪ Text: PRTG uses the default plain text email template for the message part of the email. ▪ Custom text: PRTG uses custom plain text for the message part of the email. Define a custom text below.
Custom Text	<p>This setting is only visible if you select Custom text above. Enter the desired message for this email notification in plain text format. You can use placeholders here.</p> <p> For more information, see section List of Placeholders for Notifications .</p>
Priority	<p>Define the priority that PRTG sets for the email:</p> <ul style="list-style-type: none"> ▪ Highest ▪ High ▪ Normal ▪ Low ▪ Lowest <p> Most email clients can show this priority flag.</p>
HTTP Version	<p>Define the HTTP version that PRTG uses to send the email:</p> <ul style="list-style-type: none"> ▪ HTTP 1.1 (default): Use HTTP version 1.1. ▪ HTTP 1.0: Use HTTP version 1.0.

Add Entry to Event Log

 This option is not available in PRTG Hosted Monitor.

Add Entry to Event Log

Log File ⓘ Application
 PRTG Network Monitor

Event Type ⓘ

Message ⓘ [%sitename] %device %name %status %down (%message)

Add Entry to Event Log

Setting	Description
Log File	<p>Define the log file to which PRTG adds an event:</p> <ul style="list-style-type: none"> Application: PRTG adds an entry to the Application log file under Windows Logs in the event log PRTG Network Monitor: PRTG adds an entry to the PRTG Network Monitor log file under Applications and Services Logs in the event log.
Event Source	<p>This setting is only visible if you select Application above. Enter the source for the event. This is usually the name of the application.</p>
Event Type	<p>Select the type of the event:</p> <ul style="list-style-type: none"> Error: An event that indicates a significant problem such as loss of data or loss of functionality. For example, if a service fails to load during startup, an Error event is logged. Warning: An event that is not necessarily significant, but may indicate a possible future problem. For example, when disk space is low, a Warning event is logged. Information: An event that describes the successful operation of an application, driver, or service. For example, when a network driver loads successfully, it may be appropriate to log an Information event.
Message	<p>Define the message that PRTG writes in the event log. The default message is [%sitename] %device %name %status %down (%message).</p> <p> ⓘ To reset this field to the default value, enter only an asterisk (*).</p> <p> ■ You can use placeholders. For more information, see section List of Placeholders for Notifications ⁴⁶⁶².</p>

Send SMS/Pager Message

ⓘ You must first set up this notification method in the [Notification Delivery](#) ⁴¹⁹⁴ settings.

ⓘ This notification method uses notification contacts to deliver the SMS/pager messages. Set up notification contacts in advance in the [notification contacts](#) ⁴¹⁶⁵ settings.

■ This notification method uses the central proxy settings that you define for the PRTG core server. For more information, see section [Core & Probes](#) ⁴²⁰³ (section Proxy Configuration).

Send SMS/Pager Message

Send to User, Send to User Group, and Send to Number all work simultaneously. Every user, user group, or number that you define here all receive the notifications.

Send to User

Send to User Group

Send to Phone Number

Message

HTTP Version
 HTTP 1.1 (default)
 HTTP 1.0

Send SMS/Pager Message

Setting	Description
Send to User	Select a user account from the dropdown list. PRTG sends the SMS/pager message to every SMS notification contact ⁴¹⁶⁵ for the user account. Leave None to not use this option.
Send to User Group	Select a user group from the dropdown list. PRTG sends the SMS/pager message to every SMS notification contact for every member of the user group ⁴²¹⁹ . Leave None to not use this option. If you select a user group and a specific member of this user group as recipients at the same time, this user receives the SMS/pager message only once. This also applies if you enter an individual phone number below that is already defined as an SMS notification contact for the selected user.
Send to Phone Number	Enter a phone number to send the SMS/pager message to. If you enter more than one phone number, use commas as separators. The format depends on the SMS provider. Usually, you use a plus sign (+), followed by the country code and the number. For example, +1555012345 . Make sure that the number format meets the requirements of the SMS provider or the hardware that you use in combination with an application programming interface (API) call. Sometimes, a plus sign is not required. The wrong format might result in undelivered messages. We recommend that you use Send to User and/or Send to User Group instead because you can then manage the notification contacts of users.
Message	Define the SMS/pager message. The default message is [%sitename] %device %name %status %down (%message) . To reset this field to the default value, enter only an asterisk (*). You can use placeholders. For more information, see section List of Placeholders for Notifications ⁴⁶⁶² .

Setting	Description
HTTP Version	<p>Define the HTTP version that PRTG uses to send the SMS/pager message:</p> <ul style="list-style-type: none"> ▪ HTTP 1.1 (default): Use HTTP version 1.1. ▪ HTTP 1.0: Use HTTP version 1.0.

Execute HTTP Action://

i Regardless of the Notification Summarization method that you use, PRTG always sends notifications of the type Execute HTTP Action as soon as possible (ASAP). PRTG never summarizes them.

■ This notification method uses the central proxy settings that you define for the PRTG core server. For more information, see section [Core & Probes](#)⁴²⁰³ (section Proxy Configuration).

■ For more details, see section [Custom Notifications](#)⁴⁴⁵². You can find ready-to-use custom notifications in the [PRTG Sensor Hub](#), see [below](#)⁴¹⁶¹.

Execute HTTP Action

URL **i** www.example.com

SNI Handling **i**

Do not send SNI (default)
 Send SNI

HTTP Method **i**

GET
 POST
 PUT
 PATCH

Execute HTTP Action

Setting	Description
URL	<p>Enter the URL that PRTG sends the request to.</p> <p>i HTTP notifications work with or without Secure Sockets Layer (SSL).</p> <p>■ You can use placeholders. For more information, see section List of Placeholders for Notifications⁴⁰⁶².</p>
SNI Handling	<p>Define if PRTG sends the Server Name Identification (SNI) extension to the Transport Layer Security (TLS) protocol along with the HTTP request:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ Do not send SNI (default): PRTG does not send the SNI when it executes the HTTP action. ▪ Send SNI: PRTG sends the SNI when it calls the target URL. Specify the SNI below.
SNI Name	This setting is only visible if you select Send SNI above. Enter the SNI name that the endpoint configuration requires. Usually, this is the fully qualified domain name (FQDN) of the virtual host.
HTTP Method	Select the HTTP method that the notification uses: <ul style="list-style-type: none"> ▪ GET: Use the GET method. ▪ POST: Use the POST method. ▪ PUT: Use the PUT method. ▪ PATCH: Use the PATCH method.
Payload	<p>This setting is only visible if you select POST, PUT, or PATCH above. Enter a payload. The payload is the data that PRTG transmits to the URL.</p> <ul style="list-style-type: none"> ⓘ You cannot use Extensible Markup Language (XML) or JavaScript Object Notation (JSON). ⓘ Only the content type <code>application/x-www-form-urlencoded</code> is supported. ⓘ You can use line breaks. ■ You can use placeholders. For more information, see section List of Placeholders for Notifications.
HTTP Version	<p>This setting is only visible if you select POST above. Select the HTTP version that PRTG uses to execute the HTTP action:</p> <ul style="list-style-type: none"> ▪ HTTP 1.1 (default): Use HTTP 1.1. ▪ HTTP 1.0: Use HTTP 1.0. <p>ⓘ Make sure that the target supports the HTTP version that you select.</p>


Execute Program

ⓘ Regardless of the Notification Summarization method that you use, PRTG always sends notifications of the type Execute Program as soon as possible (ASAP). PRTG never summarizes them.

ⓘ To remotely run PowerShell scripts, make sure that you set the according Execution Policy. For more information, see the Knowledge Base: [PowerShell 32 Bit and 64 Bit and Execution Policy](#).





For more details, see section [Custom Notifications](#)⁴⁴⁶². You can find ready-to-use custom notifications in the [PRTG Sensor Hub](#), see [below](#)⁴¹⁶¹.

 This option is not available in PRTG Hosted Monitor.

 Execute Program

Executable File ⁴⁴⁶²	Demo exe notification - outfile.bat
Parameters ⁴⁴⁶²	[%sitename] %device %name %status %down (%message)
Domain or Computer Name ⁴⁴⁶²	
User Name ⁴⁴⁶²	
Password ⁴⁴⁶²	
Timeout (Sec.) ⁴⁴⁶²	60

Execute Program


Setting	Description
Executable File	<p>Select an executable file from the list. PRTG runs it every time the notification is triggered.</p> <p> You see the files that are in the corresponding \Notifications\EXE subfolder of the PRTG program directory⁴⁵²⁶. For files to appear in this list, store them as .bat, .cmd, .exe, .com, .ps1, or .vbs.</p> <p> In a cluster, copy the files to every cluster node. This makes sure that PRTG can execute the notification even when the master node fails. If your custom notification executes an external program, install it on all cluster nodes as well.</p>
Parameters	<p>Enter the parameters that the notification passes to the executable. For example, if you use a batch file that contains a %1 variable, you can provide a value for this variable. The default parameters are [%sitename] %device %name %status %down (%message).</p> <p> You can use placeholders. For more information, see section List of Placeholders for Notifications⁴⁶⁶².</p> <p> You need to escape special characters and whitespaces in your parameters and surround them with double quotes. See section Escape Special Characters and Whitespaces in Parameters⁴¹³¹ for details.</p>
Domain or Computer Name	Enter a Windows authority if you want to use a different security context for the program than the security context of the PRTG probe service.
User Name	Enter the user name for Windows access.
Password	Enter the password for Windows access.


Setting	Description
Timeout (Sec.)	Enter a timeout in seconds. After this time passes, PRTG stops the process if it is still running. Enter an integer value.


Send Syslog Message


 This option is not available in PRTG Hosted Monitor.


Send Syslog Message

Host/IP Address  192.0.2.0




Syslog Port  514





Facility  User-level messages

Encoding  ANSI
 UTF-8 (default)

Message  [%sitename] %device %name %status %down (%message)




Send Syslog Message

Setting	Description
Host/IP Address	<p>Define the IP address or the Domain Name System (DNS) name of the system that runs the syslog server.</p> <p> You can receive and analyze syslog messages with the Syslog Receiver sensor .</p>
Syslog Port	<p>Enter the port that PRTG sends the syslog messages to. The default port is 514.</p> <p> You can only use the User Datagram Protocol (UDP).</p>
Facility	<p>Define the facility of the syslog messages:</p> <ul style="list-style-type: none"> ▪ User-level messages ▪ Local use 0-7
Encoding	<p>Define the encoding of the syslog messages that PRTG sends to the syslog receiver:</p> <ul style="list-style-type: none"> ▪ ANSI ▪ UTF-8


Setting	Description
	<p> Make sure that the syslog receiver supports the encoding that you select.</p>
Message	<p>Define the syslog message. The default message is [%sitename] %device %name %status %down (%message).</p> <p> To reset this field to the default value, enter only an asterisk (*).</p> <p> You can use placeholders. For more information, see section List of Placeholders for Notifications .</p>

Syslog Message Severity Status

-  Depending on the status of the sensor that triggers the syslog notification, PRTG automatically sets the Severity level of the syslog messages.

Status	Severity level
 Up	Notice (5)
 Warning	Warning (4)
 Down	Error (3)

Send SNMP Trap

-  For information about the object identifiers (OID) that PRTG uses in the content of the Simple Network Management Protocol (SNMP) traps, see the Knowledge Base: [Is it possible to send SNMP traps using PRTG?](#)

 This option is not available in PRTG Hosted Monitor.


✔ Send SNMP Trap


Host/IP Address ⓘ	192.0.2.0
SNMP Port ⓘ	162
Community String ⓘ	
Custom Trap Code ⓘ	0
Message ID ⓘ	0
Message ⓘ	[%sitename] %device %name %status %down (%message)
Agent IP ⓘ	


Send SNMP Trap


Setting	Description
Host/IP Address	<p>Define the IP address or DNS name of the system that runs the trap receiver.</p> <p> ⓘ You can receive and analyze SNMP trap messages with the SNMP Trap Receiver sensor³¹⁰⁷.</p>
SNMP Port	<p>Enter the port on which PRTG sends trap messages. The default port is 162.</p>
Community String	<p>Enter the community string of the device. The default community string is public. Enter a string or leave the field empty.</p>
Custom Trap Code	<p>Enter a code to identify the purpose of the trap. The default trap code is 0. Enter an integer value.</p>
Message ID	<p>Enter an ID to identify the origin of the trap. Enter an integer value. PRTG sends it on the OID 1.3.6.1.4.1.32446.1.1.1.</p>
Message	<p>Define the trap message.</p> <p> ⓘ To reset this field to the default value, enter only an asterisk (*).</p> <p> ■ You can use placeholders. For more information, see section List of Placeholders for Notifications⁴⁶⁸².</p>
Agent IP	<p>Define the IP address of the agent. Leave this field empty to use the IP address of the PRTG web server.</p>


Send Amazon Simple Notification Service Message


 **Send Amazon Simple Notification Service Message**


AWS Access Key ID 

AWS Secret Access Key 

Location 

Amazon Resource Name 
This field is required.

Subject 

Message 

Send Amazon Simple Notification Service Message

Setting	Description
AWS Access Key ID	Enter your access key ID from aws.amazon.com. Enter a string.
AWS Secret Access Key	Enter your secret access key from aws.amazon.com. Enter a string.
Location	<p>Define the location of your Amazon service. Choose one of the following locations:</p> <ul style="list-style-type: none"> ▪ Africa (Cape Town) ▪ Asia Pacific (Hong Kong) ▪ Asia Pacific (Mumbai) ▪ Asia Pacific (Osaka) ▪ Asia Pacific (Seoul) ▪ Asia Pacific (Singapore) ▪ Asia Pacific (Sydney) ▪ Asia Pacific (Tokyo) ▪ Canada (Central) ▪ China (Beijing) ▪ China (Ningxia) ▪ Europe (Frankfurt) ▪ Europe (Stockholm) ▪ Europe (Milan) ▪ Europe (Ireland) ▪ Europe (London)

Setting	Description
	<ul style="list-style-type: none"> ▪ Europe (Paris) ▪ Middle East (Bahrain) ▪ South America (São Paulo) ▪ US East (Northern Virginia) ▪ US East (Ohio) ▪ US West (Northern California) ▪ US West (Oregon)
Amazon Resource Name	Enter the Amazon resource name. Enter a string.
Subject	<p>Enter the subject of the Amazon Simple Notification Service (SNS) message. Enter a string.</p> <p>i The maximum length for the subject is 202 characters. PRTG ignores characters that exceed this length.</p>
Message	<p>Define the SNS message. The default SNS message is [%sitename] %device %name %status %down (%message).</p> <p>i To reset this field to the default value, enter only an asterisk (*).</p> <p>■ You can use placeholders. For more information, see section List of Placeholders for Notifications⁴⁶⁶².</p> <p>i PRTG only sends the message if you use email-based notifications delivered by Amazon SNS. For SMS delivery, PRTG only sends the subject and ignores the message because of SMS size restrictions.</p>

Assign Ticket

i Regardless of the Notification Summarization method that you use, PRTG always sends notifications of the type Assign Ticket as soon as possible (ASAP). PRTG never summarizes them.

■ For more information about the ticket system, see section [Tickets](#)²⁴⁰.

✔

Assign Ticket

Assign to User Group or User ⓘ To user group
 To user

User Group ⓘ PRTG Administrators

Subject ⓘ %device %name %status %down (%message)

Content ⓘ

Sensor: %name
 Status: %status %down

🗑️ Date/Time: %datetime (%timezone)


When Condition Clears ⓘ Close the notification ticket (recommended)
 Do not close the notification ticket

Assign Ticket


Setting	Description
Assign to User Group or User	Specify whether to assign the notification ticket ^[240] to a user group or to a single user: <ul style="list-style-type: none"> ▪ To user group: Assign the notification ticket to a user group. ▪ To user: Assign the notification ticket to a single user.
User Group	Select the user group to which PRTG assigns the notification ticket. <p> ⓘ Read/write users can assign tickets to all user groups that they are a member of as well as to administrators and individual users that are members of the same user group as the read/write user.</p>
User	Select the user to which PRTG assigns the notification ticket. <p> ⓘ Read/write users can assign tickets to all user groups that they are a member of as well as to administrators and individual users that are members of the same user group as the read/write user.</p>
Subject	Enter the subject of the notification ticket. The default subject is <code>%device %name %status %down (%message)</code> . <p> ■ You can use placeholders. For more information, see section List of Placeholders for Notifications^[4662].</p>
Content	Enter the message of the notification ticket. The default message is <p><code>Sensor: %name</code> <code>Status: %status %down</code></p>


Setting	Description
	<p>Date/Time: %datetime (%timezone) Last Result: %lastvalue Last Message: %message</p> <p>Probe: %probe Group: %group Device: %device (%host)</p> <p>Last Scan: %lastcheck Last Up: %lastup Last Down: %lastdown Uptime: %uptime Downtime: %downtime Cumulated since: %cumsince Location: %location</p> <p> To reset this field to the default value, enter only an asterisk (*).</p> <p> You can use placeholders. For more information, see section List of Placeholders for Notifications.</p>
When Condition Clears	<p>Define how PRTG handles the notification ticket when the defined trigger condition clears:</p> <ul style="list-style-type: none"> ▪ Close the notification ticket (recommended): Automatically close the notification ticket if the trigger condition is not met anymore. ▪ Do not close the notification ticket: Do not close the notification ticket after the condition clears.


Send Push Notification

 Push notifications only work with the apps [PRTG for Android](#) and [PRTG for iOS](#). You must activate push notifications in the settings of the app first. For more information about the setup, see the Knowledge Base: [How can I use push notifications with PRTG?](#)

 This notification method uses notification contacts to deliver push notifications. Set up notification contacts in advance in the [notification contacts](#) settings.





 The PRTG core server needs to communicate with the PRTG Cloud on port 443 to send push notifications. It uses <https://api.prtgcloud.com:443>, which is the same as for the [Cloud HTTP sensor](#), the [Cloud HTTP v2 sensor](#), the [Cloud Ping sensor](#), the [Cloud Ping v2 sensor](#), and [support tickets](#).

 Send to User and Send to User Group both work simultaneously. Because of this, you can define more than one user as a recipient of push notifications. PRTG sends push notifications to the active [push notification contacts](#) of the user that you select, and to the active push notification contacts of all members of the user group that you select.






 **Send Push Notification**

Send to User and Send to User Group both work simultaneously. This means that every push device of the user or user group receives the push notifications.


Note: The PRTG core server must be able to reach the PRTG Cloud on TCP port 443 to send push notifications.

Send to User 	PRTG System Administrator
Send to User Group 	None
Message 	[%sitename] %device %name %status %down (%message)
HTTP Version 	<input checked="" type="radio"/> HTTP 1.1 (default) <input type="radio"/> HTTP 1.0

Send Push Notification

Setting	Description
Send to User	<p>Select the user that PRTG sends push notifications to. PRTG sends the push notifications to each active push notification contact of the user. Leave None to not use this option.</p> <p> You can edit push notification contacts of a user in the Notification Contacts ⁴¹⁶⁵ settings and also activate push notifications in the Android or iOS app with the user.</p>
Send to User Group	<p>Select the user group that PRTG sends push notifications to. PRTG sends the push notifications to each active push notification contact of every member of the group. Leave None to not use this option.</p> <p> If you select a user group and a specific member of the group as recipients at the same time, the user receives the text message only one time.</p> <p> You can edit user groups in the User Groups ⁴²¹⁹ settings and push notification contacts in the Notification Contacts ⁴¹⁶⁵ settings.</p>
Message	<p>Define the message of the push notification. The default message is [%sitename] %device %name %status %down (%message).</p> <p> To reset this field to the default value, enter only an asterisk (*).</p> <p> You can use placeholders. For more information, see section List of Placeholders for Notifications ⁴⁶⁶².</p>
HTTP Version	<p>Define the HTTP version that PRTG uses to send the push notification:</p> <ul style="list-style-type: none"> ▪ HTTP 1.1 (default): Use HTTP version 1.1. ▪ HTTP 1.0: Use HTTP version 1.0.

Send Microsoft Teams Message

 Regardless of the Notification Summarization method you use, PRTG always sends notifications of the type Send Microsoft Teams Message as soon as possible (ASAP). PRTG never summarizes them.

Send Microsoft Teams Message

Teams Webhook URL ?

This field is required.

Title ?

Subtitle ?

Content ? Use default content
 Define custom content

Send Microsoft Teams Message

Setting	Description
Teams Webhook URL	<p>Enter the URL of the incoming webhook that you set up in your Microsoft Teams channel.</p> <p>■ For more information, see the Knowledge Base: How do I create a webhook for the PRTG Notifications to Slack and Microsoft Teams?</p>
Title	<p>Enter the title of the Microsoft Teams notification. The default title is Enter value.</p> <p>■ You can use placeholders. For more information, see section List of Placeholders for Notifications <small>4662</small>.</p>
Subtitle	<p>Enter the subtitle of the Microsoft Teams notification. The default subtitle is <code>%message</code>.</p> <p>■ You can use placeholders. For more information, see section List of Placeholders for Notifications <small>4662</small>.</p>
Content	<p>Define the content of the Microsoft Teams notification:</p> <ul style="list-style-type: none"> ▪ Use default content: Use the default notification message content. This includes information about the Status, Last Scan, Last Value, Last Up, Coverage, Downtime, Priority, Probe, and Group. ▪ Define custom content: Define custom notification message content. Choose Custom Content below.
Custom Content	<p>This setting is only visible if you select Define custom content above.</p> <p>Enable the check marks in front of content that you want PRTG to include in the Microsoft Teams notifications. Disable the check marks in front of the content that you do not want to include.</p> <p>The following types of monitoring information are available:</p> <ul style="list-style-type: none"> ▪ Name

Setting	Description
	<ul style="list-style-type: none">▪ Host▪ Status▪ Last scan▪ Last value▪ Message▪ Last down▪ Last up▪ Coverage▪ Downtime▪ Uptime▪ Priority▪ Probe▪ Group▪ Device▪ Date and time▪ Time zone▪ Comments (probe)▪ Comments (group)▪ Comments (device)▪ Comments (sensor)▪ History
	<p>■ For more information, see section List of Placeholders for Notifications <small>4662</small>.</p>

Send Slack Message

i Regardless of the Notification Summarization method you use, PRTG always sends notifications of the type Send Slack Message as soon as possible (ASAP). PRTG never summarizes them.

Send Slack Message

Slack Webhook URL ⓘ

This field is required.

Sender Name ⓘ
%sitename

Title ⓘ
%device: %name

Subtitle ⓘ
%message

Content ⓘ

Use default content

Define custom content

Send Slack Message

Setting	Description
Slack Webhook URL	Enter the URL of the incoming webhook that you set up in your Slack workspace. ■ For more information, see the Knowledge Base: How do I create a webhook for the PRTG Notifications to Slack and Microsoft Teams?
Sender Name	Enter a sender name to use as the sender of Slack notifications. ⓘ This field overrides the sender that you might have defined in your Slack workspace.
Title	Enter the title of the Slack notifications. The default title is Enter value . ■ You can use placeholders. For more information, see section List of Placeholders for Notifications <small>4662</small> .
Subtitle	Enter the subtitle of the Slack notifications. The default subtitle is % message . ■ You can use placeholders. For more information, see section List of Placeholders for Notifications <small>4662</small> .
Content	Define the content of the Slack notifications: <ul style="list-style-type: none"> ▪ Use default content: Use the default notification message content. This includes information about the Status, Last Scan, Last Value, Last Up, Coverage, Downtime, Priority, Probe, and Group. ▪ Define custom content: Define custom notification message content. Choose Custom Content below.
Custom Content	This setting is only visible if you select Define custom content above.

Setting	Description
	<p>Enable the check marks in front of the content that you want PRTG to include in the Slack notifications. Disable the check marks in front of the content that you do not want to include.</p>
	<p>The following types of monitoring information are available:</p>
	<ul style="list-style-type: none"> ▪ Name ▪ Host ▪ Status ▪ Last scan ▪ Last value ▪ Message ▪ Last down ▪ Last up ▪ Coverage ▪ Downtime ▪ Uptime ▪ Priority ▪ Probe ▪ Group ▪ Device ▪ Date and time ▪ Time zone ▪ Comments (probe) ▪ Comments (group) ▪ Comments (device) ▪ Comments (sensor) ▪ History
	<p>■ For more information, see section List of Placeholders for Notifications</p>

Send MQTT Publish Notification

i Regardless of the Notification Summarization method you use, PRTG may not send notifications of the type Send MQTT Publish Notification as soon as possible (ASAP).

Send MQTT Publish Notification

MQTT Broker ⓘ

This field is required.

Port ⓘ

1883

Timeout (Sec.) ⓘ

30

User Authentication ⓘ

None
 User name and password

Transport-Level Security ⓘ

Do not use transport-level security
 Use transport-level security

MQTT Topic ⓘ

PRTG/%sitename/notifications

ClientID ⓘ






PRTG - %sitename



Message ⓘ


PRTG - [%sitename] %device %name %status %down (%message)

Send MQTT Publish Notification

Setting	Description
MQTT Broker	Enter the address for the connection to the MQTT broker (server).
Port	Enter the port for the connection to the MQTT broker. The default port for secure connections is 8883 and the default port for unsecure connections is 1883 .
Timeout (Sec.)	Enter a timeout in seconds for the request. Enter an integer value. The maximum timeout value is 300 seconds (5 minutes).
User Authentication	Select if you want to connect without credentials or define credentials for access to the MQTT broker. <ul style="list-style-type: none"> None (default): Connect without credentials. User name and password: Define credentials for the connection.
User Name	This setting is only visible if you select User name and password above. Enter the user name for access to the Message Queue Telemetry Transport (MQTT) broker.
Password	This setting is only visible if you select User name and password above. Enter the password for access to the MQTT broker.
Transport-Level Security	Select if you want to use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection:

Setting	Description
	<ul style="list-style-type: none"> Do not use transport-level security: Establish the connection without connection security. Use transport-level security: Establish the connection with the strongest SSL/TLS method that the target device provides.
Server Authentication	<p>This setting is only visible if you select Use transport-level-security above. Select if you want to use a certificate for server authentication.</p> <ul style="list-style-type: none"> Disable (default): Do not use a certificate for server authentication. Enable: Use a certificate for server authentication.
CA Certificate	<p>Paste the certificate authority (CA) certificate for the verification of the MQTT broker.</p> <p> The certificate must be in Privacy-Enhanced Mail (PEM) format.</p>
Client Authentication	<p>This setting is only visible if you select Use transport-level-security above. Select if you want to use a certificate for client authentication.</p> <ul style="list-style-type: none"> Disable (default): Do not use a certificate for client authentication. Enable: Use a certificate for client authentication.
Client Certificate	<p>Paste the certificate that you created for authenticating the sensor against the MQTT broker.</p> <p> The certificate must be in PEM format.</p>
Client Key	<p>Enter the client key for access to the MQTT broker.</p> <p> The client key must be in PEM format and it must be encrypted using the Client Key Password.</p>
Client Key Password	<p>Enter the password for the client key certificate.</p>
MQTT Topic	<p>Enter the topic for the MQTT publish notifications. The default topic is PRTG/%sitename/notifications.</p> <p> MQTT clients that are subscribed to this topic receive the MQTT publish notifications.</p>
ClientID	<p>Enter the ClientID for the connection to the MQTT broker (server). The default ClientID is PRTG - %sitename.</p>
Message	<p>Define the message of the MQTT publish notifications. The default message is PRTG - [%sitename] %device %name %status %down (%message).</p> <p> To reset this field to the default value, enter only an asterisk (*).</p>


Setting	Description
	<p> You can use placeholders. For more information, see section List of Placeholders for Notifications .</p>

 Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

PRTG Sensor Hub Notifications

In addition to the standard notifications, you can also create custom notifications. To do so, write a script or a program and use it with an Execute Program notification or an Execute HTTP Action notification. There are also many free scripts, plugins, and add-ons for PRTG in the [PRTG Sensor Hub](#).

Others

 For information about the Comments and History tabs, see section [Object Settings](#) .

Escape Special Characters and Whitespaces in Parameters

You need to escape special characters in parameters that you pass to an executable or script and surround them with quotation marks to make sure that the characters are correctly interpreted. PowerShell scripts in particular require adequate escaping so that the parameters are passed in a valid PowerShell syntax. PRTG automatically does most of the escaping for you.

Follow these rules to escape special characters and whitespaces in the parameters fields:

- Use quotes for parameters that contain whitespaces.

```
-name "Mr John Q Public"
-name 'Mr John Q Public'
```

- Use double quotes for parameters that contain single quotes.

```
-name "Mr 'John Q' Public"
```

- Use single quotes for parameters that contain double quotes.


```
-name 'Mr "John Q" Public'
```



- Use a backslash (\) to escape and pass a literal double quote.

```
-name pub\"lic
```

- Use double quotes for parameters that contain double and single quotes and escape double quotes.

```
-name "pu'b\"lic"
```

 In SSH scripts, you can use alphanumeric characters and the special characters ".", "_", "-", "=", and "/" outside of quoted strings.

 We recommend that you do not pass passwords in parameters. Use placeholders instead. See section [Custom Sensors](#)  for details.

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

PowerShell 32 bit or 64 bit and Execution Policy

- <https://kb.paessler.com/en/topic/20443>

Is it possible to send SNMP traps using PRTG?

- <https://kb.paessler.com/en/topic/1133>

How can I use push notifications with PRTG?

- <https://kb.paessler.com/en/topic/60892>

How do I create a webhook for the PRTG Notifications to Slack and Microsoft Teams?

- <https://kb.paessler.com/en/topic/80010>

What placeholders can I use with PRTG?

- <https://kb.paessler.com/en/topic/373>

How can PRTG send instant messages to Jabber, ICQ, MSN, Yahoo, etc., using external software?

- <https://kb.paessler.com/en/topic/14803>

Which audible notifications are available in the PRTG web interface and in PRTG Desktop?

- <https://kb.paessler.com/en/topic/26303>

How do I troubleshoot erratic behavior of push notifications in PRTG Desktop or the PRTG apps?









- <https://kb.paessler.com/en/topic/86064>
















■ PAESSLER WEBSITE

You can find custom notification scripts in the PRTG Sensor Hub

- <https://www.paessler.com/sensor-hub>

Setup

- [Account Settings](#)  4123
 - [My Account](#)  4123
 - [Notification Templates](#)  4131
 - [Notification Contacts](#)  4163
 - [Schedules](#)  4169
- [System Administration](#)  4175
 - [User Interface](#)  4175
 - [Monitoring](#)  4187

- [Notification Delivery](#)  4194
- [Core & Probes](#)  4202
- [User Accounts](#)  4211
- [User Groups](#)  4219
- [Administrative Tools](#)  4225
- [Cluster](#)  4229
- [Single Sign-On](#)  4232
- [PRTG Status](#)  4236
- [System Status](#)  4236
- [Cluster Status](#)  4248
- [License Information](#)  4251
- [Auto-Update](#)  4257
- [Optional Downloads](#)  4262
- [Help and Support Center](#)  4264
- [Contact Support](#)  4266


Others


There are some settings that you must make in the [PRTG Administration Tool](#)  4346. For more details, see the sections:

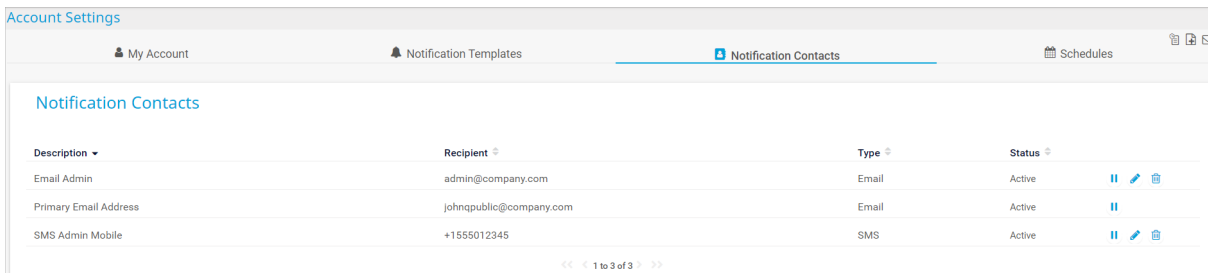
- [PRTG Administration Tool on PRTG Core Server Systems](#)  4347
- [PRTG Administration Tool on Remote Probe Systems](#)  4371

8.12.1.3 Notification Contacts

In the Notification Contacts settings, you can define and change the notification contacts of the user account.

 This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

 If 15 minutes (900) seconds have passed since your last credential-based login and you open a system administration page from a different system administration page, PRTG asks you to enter your credentials again for security reasons. A dialog box appears. Enter your Login Name and Password and click OK to continue.



Notification Contacts Tab

Notification contacts are unique for each user account. This means that every user can individually define how they want to receive [notifications](#) ⁴⁰³¹ from PRTG. Recipients of notifications are email addresses, phone numbers, push devices (with [PRTG for Android](#) ⁴²⁷⁸ or [PRTG for iOS](#) ⁴²⁷⁸), and users of certain instant messaging services.

The [notification methods](#) ⁴¹³⁸ Send Email, Send SMS/Pager Message, and Send Push Notification let you define a user who receives notifications for every **active** notification contact. If you select a user group, PRTG sends the notifications to **all active** notification contacts of **all** users that are in the user group. To exclude notification contacts from the notification delivery, use the Pause button to deactivate them.

Note

You have to take the following four steps to set up and use notifications:

1. Check and set up the [notification delivery](#) ⁴¹⁹⁴ settings if you use PRTG on premises. These settings define how PRTG sends messages.
2. Check and set up [notification contacts](#) ⁴¹⁶³ for the user accounts. These contacts define the recipients to which PRTG sends notifications.
3. Check and set up several [notification templates](#) ⁴¹³¹. These templates define the notification methods and their content.
 - i** You can also check or edit notification templates via the Notification Triggers tab. For more information, see section [Notification Triggers Settings](#) ³⁹⁸⁷.
4. Check and set up [notification triggers settings](#) ³⁹⁸⁷ for objects. These triggers define when PRTG sends notifications.

i Usually, there are three successive attempts to deliver a notification. If all of these attempts fail, the notification is lost. To never miss a notification, we recommend that you always set up at least two notifications with different notification methods for a notification trigger, for example, one email notification and one SMS notification. If delivery via email fails, PRTG can still notify you via smartphone as a fallback. For example, use the latency setting of a [state trigger](#) ³⁹⁸⁸ to choose a notification with a different notification method than in the first trigger condition, or set up a second trigger with a different notification method for the corresponding object.

See sections [Notifications Based on Sensor Limits Step by Step](#) ⁴⁰³⁴ and [Notifications Based on Libraries Step by Step](#) ⁴⁰⁴² for step-by-step guides that describe potential notification setups.


Custom notification scripts are also available in the [PRTG Sensor Hub](#).

Notification Contacts Overview

Click the Notification Contacts tab to show a list of all notification contacts for the user account. You have the following options:

Option	Description
Pause (⏸)	Pauses the notification contact. If a notification contact is paused ^[256] , PRTG does not send any messages to the contact when a notification for this user is triggered.
Resume (▶)	Resumes the notification contact. When a notification for this user is triggered, PRTG sends a message to this user.
Edit (✎)	Open the settings of the notification contact ^[4165] and change its description and recipient. ⓘ This is not possible for predefined notification contacts, for example, for Primary Email Address . You can change the primary email address under My Account ^[4123] .
Delete (🗑)	Delete the notification contact. ⓘ This is not possible for predefined notification contacts, for example, for Primary Email Address .

Notification Contacts Settings

Hover over  and select Add Email Contact or Add SMS Contact from the menu to add a new notification contact. You can also click the  next to a notification contact to edit it.

ⓘ PRTG automatically adds push contacts for the corresponding user when you install a PRTG app for iOS or Android on your smartphone or tablet, connect to PRTG, and activate push notifications. You cannot manually add push contacts. If your mobile device actively rejects push notifications for a push contact, for example, because you deactivate push on the target device or reset it, PRTG automatically pauses the push contact. The affected user account receives a [ToDo ticket](#)^[240] in this case.

Add New Notification Contact
✕

Add New Notification Contact

Description ⓘ

Email to Admin

Recipient ⓘ

johnqpublic@mycompany.com

Contact Type

Email

Cancel
OK

Add New Notification Contact

Add Email Contact

Setting	Description
Description	<p>Enter a meaningful description for the email contact.</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Recipient	<p>Enter a valid email address for the email contact.</p> <p>■ For the contact type Push, this field shows a unique token that you cannot change. PRTG uses this token to send push notifications through the cloud. For details, see the Knowledge Base: How can I use push notifications with PRTG?</p>
Contact Type	<p>Shows the type of the notification contact.</p> <p>ⓘ This setting is for your information only. You cannot change it.</p> <p>ⓘ If you want to use a different contact type, create a new contact with Add Email Contact or Add SMS Contact, or activate push notifications in your PRTG for iOS or Android app.</p>

Click OK to save your settings, or click Cancel to close the dialog box without changes to the notification contact.

Add SMS Contact

Setting	Description
Description	<p>Enter a meaningful description for the SMS contact.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Recipient	<p>Enter a valid phone number for the SMS contact. The format of the phone number depends on the SMS provider. You can use a plus sign (+) or 00, followed by the country code and the number. For example, +1555012345 or 001555012345.</p> <p>i Make sure that the number format meets the requirements of your SMS provider or the hardware that you use in combination with an application programming interface (API) call. Sometimes a preceding plus sign is not required. The wrong format might result in undelivered messages.</p> <p>■ For the contact type Push, this field shows a unique token that you cannot change. PRTG uses this token to send push notifications through the cloud. For details, see the Knowledge Base: How can I use push notifications with PRTG?</p>
Contact Type	<p>Shows the type of the notification contact.</p> <p>i This setting is for your information only. You cannot change it.</p> <p>i If you want to use a different contact type, create a new contact with Add Email Contact or Add SMS Contact, or activate push notifications in your PRTG for iOS or Android app.</p>

Click OK to save your settings, or click Cancel to close the dialog box without changes to the notification contact.

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How can I use push notifications with PRTG?
























- <https://kb.paessler.com/en/topic/60892>

■ PAESSLER WEBSITE

You can find custom notification scripts in the PRTG Sensor Hub

- <https://www.paessler.com/sensor-hub>

Setup

- [Account Settings](#)  4123
 - [My Account](#)  4123
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 - [Notification Contacts](#)  4163
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- [Contact Support](#)  4266

Others

There are some settings that you must make in the [PRTG Administration Tool](#)  4346. For more details, see the sections:

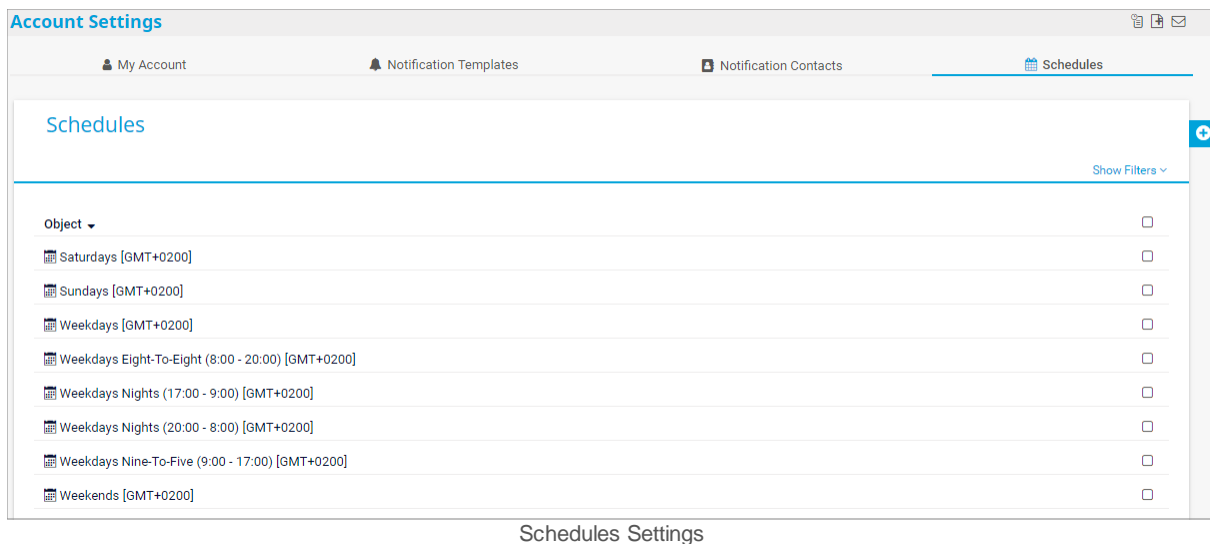
- [PRTG Administration Tool on PRTG Core Server Systems](#)  4347
- [PRTG Administration Tool on Remote Probe Systems](#)  4371

8.12.1.4 Schedules

In the Schedules settings, you can define or change schedules for the user account. You can use schedules to [pause](#) monitoring and notifications for certain time periods with the period lists option. Also, you can activate monitoring and notifications at certain times with the time table option. You can also use schedules to define the time periods that PRTG covers when you create [reports](#).

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

☁ If 15 minutes (900) seconds have passed since your last credential-based login and you open a system administration page from a different system administration page, PRTG asks you to enter your credentials again for security reasons. A dialog box appears. Enter your Login Name and Password and click OK to continue.



Schedules Settings

Schedules Settings

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.


i When a user with administrative rights creates a new object, only other users with administrative rights can view or edit the new object by default. When a read/write user creates a new object, all members of the read/write user's primary group can view and edit the new object as well. This behavior applies to [libraries](#), [maps](#), [reports](#), [notification templates](#), and [schedules](#). For more information, see section [Access Rights Management](#).

Click the Schedules tab to show a list of all schedules. To edit a schedule, enable the check box next to a schedule and choose from the following options:

Option	Description
Used by	Shows a list of objects that use this schedule.

Option	Description
Delete (🗑️)	Deletes the schedule. ⓘ This is not possible for predefined schedules.
Settings (⚙️)	Opens the settings of the schedule.

See also sections [Working with Table Lists](#)²⁴⁶ and [Multi-Edit](#)⁴⁰¹⁴.

Hover over  and select Add Schedule from the menu. You can also click the name of a schedule to edit it.

Basic Settings

Schedule Saturdays [GMT+0100]

⚙️ Settings 💬 Comments ↻ History

Basic Settings

Schedule Name [ⓘ] Saturdays [GMT+0100]

Tags [ⓘ] +

Selection Method [ⓘ] Use weekday/hour time table
 Use list of period definitions

Time Table (active time slots) [ⓘ]

	All off	Mo	Tu	We	Th	Fr	Sa	Su
0:00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1:00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2:00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3:00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4:00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5:00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6:00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7:00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8:00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9:00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10:00	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Edit Schedule Time Table

Setting	Description
Schedule Name	<p>Enter a meaningful name for the schedule.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Tags	<p>Enter one or more tags. Confirm each tag with the Spacebar key, a comma, or the Enter key. You can use tags to group objects and use tag-filtered views later on. Tags are not case-sensitive. Tags are automatically inherited¹⁴⁵.</p> <p>i For performance reasons, it can take some minutes until you can filter for new tags that you added.</p> <p>■ For more information, see section Tags¹⁴⁵.</p>
Selection Method	<p>Select the method that you want to use to define a schedule:</p> <ul style="list-style-type: none"> Use weekday/hour time table: Select specific days of the week or specific hours in which the schedule is active. This means that monitoring objects, notifications, and reports are not paused. Use list of period definitions: Enter a list of period definitions in which the schedule is inactive. This means that monitoring objects, notifications, and reports are paused.
Time Table (active time slots)	<p>This setting is only visible if you select Use weekday/hour time table above. Enable or disable check marks or use buttons to define the schedule. You have the following options:</p> <ul style="list-style-type: none"> Weekday buttons (<input type="text" value="Mo"/>): Use the weekday buttons Mo, Tu, We, Th, Fr, Sa, and Su to define the days of the week in which the schedule is active. For example, click the Mo button to set the schedule to active for all hours every Monday. This enables all check boxes under the Mo column. Hour buttons (<input type="text" value="0:00"/>): Use the hour buttons 0:00 - 23:00 to define the hours of the day in which the schedule is active. For example, if the 0:00 button is blue, click it to set the schedule to active for the hour 0:00 of all days of the week. If the 0:00 button is white, click it to set the schedule to inactive for the hour 0:00 of all days of the week. All off button (<input type="text" value="All off"/>): Use the All off button to disable all check marks, and to deselect all weekday buttons and hour buttons. All on button (<input type="text" value="All on"/>): Use the All on button to enable all check marks, and to select all weekday buttons and hour buttons. <p>■ For more information, see also Schedules and Time Zones⁴¹⁷² below.</p>

Setting	Description
Period List (inactive time slots)	<p>This setting is only visible if you select Use list of period definitions above. Enter the date and time periods in which the schedule is inactive. The periods must have the following format:</p> <p><code>ww:hh:mm-ww:hh:mm</code></p> <p>i Make sure that you enter each period exactly in this format. Otherwise you receive an error message. Go back to the schedule and correct the period in this case. For details and examples, see Period Definition Syntax ⁴¹⁷³ below.</p> <p>i For more information, see also Schedules and Time Zones ⁴¹⁷² below.</p>

Access Rights

Setting	Description
User Group Access	<p>Define the user groups that have access to the object. You see a table with user groups and group access rights. The table contains all user groups in your setup. For each user group, you can choose from the following group access rights:</p> <ul style="list-style-type: none"> ▪ No access: Users in this user group cannot see or edit the object. The object does not show up in lists. ▪ Read access: Users in this user group can see the object and view its settings. ▪ Write access: Users in this user group can see the object and view and edit its settings. However, they cannot edit the object's access rights settings. ▪ Full access: Users in this user group can see the object, view and edit its settings, and edit its access rights settings. <p>i You can create new user groups in the User Groups ⁴²¹⁹ settings.</p>

i Click OK to save your settings. If you close the dialog without saving, all changes to the settings are lost.


Schedules and Time Zones

- i** Schedules use the time zone of the PRTG core server system. This might be different from other time displays in PRTG that are saved in UTC.
- If you select Use weekday/hour time table, PRTG converts the time in which the schedule is active to the time zone of [the user account](#) ⁴¹²³. This means that the schedule applies according to the time that the user account shows.

- If you select Use list of period definitions, PRTG does **not** adjust the time in which the schedule is inactive to the time zone of the user account. The schedule applies according to the time on the PRTG core server system in this case. Because of this, you encounter time shifts for schedules if there are changes to the time zone on the server or because of daylight saving and standard time changes.

Period Definition Syntax

Define one or more periods of time during which the object that uses this schedule is **inactive**. In each line, enter one range in the format **ww:hh:mm-ww:hh:mm**. The following values are possible:

- **ww**: mo, tu, we, th, fr, sa, su.
- **hh**: Enter the hour in the 24-hour format. For example, a number between 00 and 23.
 You must use the 24-hour format. You cannot use A.M./P.M.
- **mm**: Enter the minute. For example, a number between 00 and 59.

Example

This example shows a schedule that pauses an object during the weekend as well as on Wednesday evenings.

```
fr:19:30-mo:06:05  
we:18:45-we:23:00
```

Any object that uses this schedule is inactive (paused) from Friday, 7:30 P.M. to Monday, 6:05 A.M. as well as on Wednesday from 6:45 P.M. to 11 P.M. It is active during the other times.

Others

- For information about the comments and history tabs, see section [Object Settings](#) .









More

KNOWLEDGE BASE
















What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Setup

- [Account Settings](#) 
 - [My Account](#) 
 - [Notification Templates](#) 
 - [Notification Contacts](#) 
 - [Schedules](#) 
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 - [User Interface](#) 
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1 Account Settings

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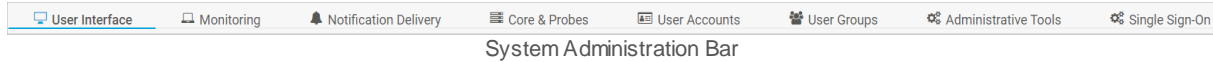
Others

There are some settings that you must make in the [PRTG Administration Tool](#)  4346. For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#)  4347
- [PRTG Administration Tool on Remote Probe Systems](#)  4371

8.12.2 System Administration

To open the system administration, select Setup | System Administration from the [main menu bar](#)²⁸⁹. Select the various tabs to change the different settings.



You can define the following aspects of your PRTG system setup:

- [User Interface](#)⁴¹⁷⁵
- [Monitoring](#)⁴¹⁸⁷
- [Notification Delivery](#)⁴¹⁹⁴
- [Core & Probes](#)⁴²⁰²
- [User Accounts](#)⁴²¹¹
- [User Groups](#)⁴²¹⁹
- [Administrative Tools](#)⁴²²⁵
- [Cluster](#)⁴²²⁹
- [Single Sign-On](#)⁴²³²

8.12.2.1 User Interface

In the user interface settings, you can define global settings regarding the PRTG web interface, PRTG web server settings and performance, Geo Maps, and graph settings.

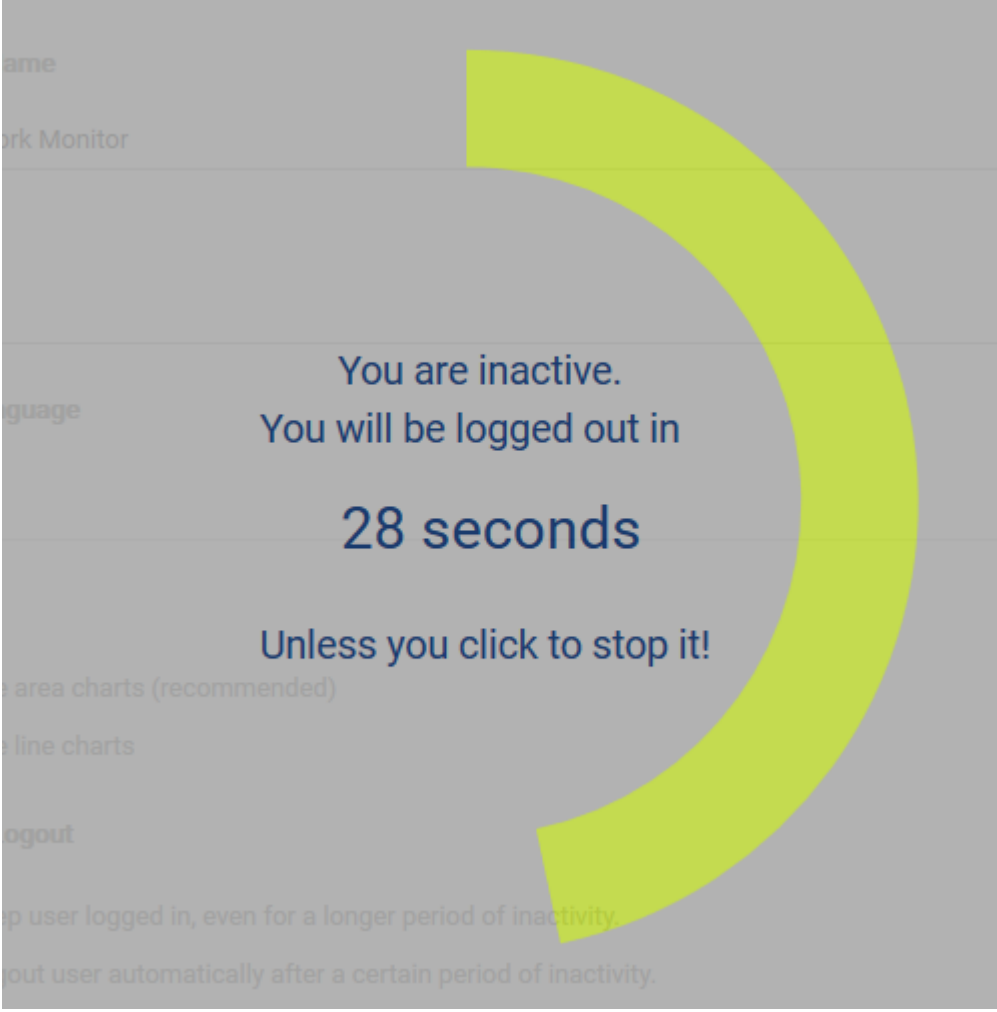
☁ If 15 minutes (900) seconds have passed since your last credential-based login and you open a system administration page from a different system administration page, PRTG asks you to enter your credentials again for security reasons. A dialog box appears. Enter your Login Name and Password and click OK to continue.

Website

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

Setting	Description
PRTG Site Name	<p>When using the PRTG web interface, the site name is shown in the title bar of your browser window. It is also used in notification emails by default. Enter a string.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>





Setting	Description
DNS Name	<p>If your PRTG web interface is (additionally) reachable via a Domain Name System (DNS) name, enter it here. It is used, for example, by default in notification emails to generate links. Enter a string.</p> <p>i The special characters " and \ are not allowed in the DNS name.</p> <p>i In a cluster, the DNS name you enter here is only used by the master node. You cannot enter a DNS name for a failover node.</p> <p>☁ This option is not available in PRTG Hosted Monitor.</p>
Website Language	<p>Select the system language. The default is English. Depending on your installation, you might be able to choose other languages here. This setting defines the language of the PRTG web interface and the PRTG Administration Tool⁴³⁴⁶.</p> <p>i If you change this setting, PRTG needs to restart the PRTG core server to apply your changes. After clicking Save, a dialog box appears that asks you to confirm the restart. Click OK to trigger the restart. During the restart, all users of the PRTG web interface, of PRTG Desktop⁴²⁷⁵, or of PRTG Apps for Mobile Network Monitoring⁴²⁷⁸ are disconnected and reconnected.</p>
Graph Type	<p>Select how graphs are displayed throughout the PRTG web interface and in reports⁴⁰⁶⁵.</p> <ul style="list-style-type: none"> ▪ Use area graphs (recommended): Display filled graphs. ▪ Use line graphs: Display graphs using single lines only. <p>We recommend that you use area charts, as they are better to read.</p> <p>i Graphs containing data from more than one cluster node are automatically displayed with line graphs.</p>
Automatic Logout	<p>Define if a user who is inactive for a certain period of time is automatically logged out of the PRTG web interface for security reasons:</p> <ul style="list-style-type: none"> ▪ Keep user logged in, even for a longer period of inactivity ▪ Log out user automatically after a certain period of inactivity
Automatic Logout after Minutes	<p>This setting is only visible if you select Log out user automatically after a certain period of inactivity above. Specify a period of inactivity in minutes after which a user is automatically logged out.</p> <p>Enter an integer value. PRTG redirects to the login page once this time has expired.</p> <p>If the value you enter here is greater than 1 minute, a logout countdown appears 1 minute before you are logged out. If the value is 1 minute, you see the logout countdown 30 seconds before you are logged out. Click in the browser to stop the countdown and stay logged in.</p>









Setting	Description
	 <p>Logout Countdown</p>
Google Analytics Tracking ID	<p>You can track the usage of pages in the PRTG web interface with Google Analytics by entering your Google Universal Analytics Tracking ID into this field. You need a Google Analytics account for this feature. Create a tracking ID within the Google Analytics portal and provide it here. PRTG then dynamically integrates it into the PRTG web interface.</p> <p>Enter a string or leave the field empty. The string looks like this: UA-xxxxxx-xx</p> <ul style="list-style-type: none">■ For more information, see the Knowledge Base: How can I integrate Google Analytics in PRTG? <p>☁ This option is not available in PRTG Hosted Monitor.</p>

Geo Maps

Setting	Description
Map Service Provider	<p>Select if and how you want to integrate the Geo Maps feature into the PRTG web interface. If enabled, PRTG uses the first line of the location setting of an object ^[226] to show it on a geographical map. Choose a map provider:</p> <ul style="list-style-type: none"> ▪ Do not show maps (disables Geo Maps integration): Disable the Geo Maps feature and do not show geographical maps in the PRTG web interface. ▪ Default (recommended): As default option, PRTG uses HERE Maps to show geographical maps. ▪ HERE Maps: Use HERE Maps to show geographical maps. ▪ Google Static Maps (API key required): Use Google Static Maps to show geographical maps. Sign up for a Google Maps API v3 key to use this service as of PRTG 13. <p>■ For more information about the different map providers, see the Knowledge Base: Which provider should I use for the Geo Maps feature of PRTG?</p>
Map Type	<p>The options that are available depend on the provider you select above. Default (recommended), HERE Maps, and Google Static Maps (API key required) all have the following options:</p> <ul style="list-style-type: none"> ▪ Road map: Show geographical maps in a road map view. ▪ Satellite: Show geographical maps in a satellite view. <p>In addition to these options, Google Static Maps (API key required) also has the following options:</p> <ul style="list-style-type: none"> ▪ Terrain: Show geographical maps in a terrain view. ▪ Hybrid (satellite and road map): Show geographical maps in a hybrid view.
API Key	<p>This option is only visible if you select Google Static Maps (API key required) above. Obtain your personal key and paste it here.</p> <p>■ For more information on how to get a Google API key, see the Knowledge Base: How do I get a Google Maps API key for use in PRTG?</p>

Web Server

Setting	Description
Performance Strategy	<p>Select if you want to enable performance improvements for the PRTG web interface.</p> <ul style="list-style-type: none"> ▪ All Features: Show all features and live data (recommended): Provide full functionality and show all menu items. ▪ More Speed: Limit features and delay display: Improve the reaction time and speed of the PRTG web interface by delaying the display of monitoring data and hiding some features. <p> For more information on how to speed up the PRTG web interface, see the Knowledge Base: How can I speed up PRTG—especially for large installations?</p>
IP Address for Web Server	<p>The PRTG web server provides access via the PRTG web interface and PRTG Desktop⁴²⁷⁵. Specify on which IP address the PRTG web server runs. Later, you can log in to PRTG by pointing your browser to the specified IP address.</p> <p>Choose from:</p> <ul style="list-style-type: none"> ▪ Localhost, 127.0.0.1 (PRTG is not accessible from other computers): Use 127.0.0.1 only. The PRTG web interface and PRTG Desktop are only accessible from the PRTG core server system. Either the selected port or at least one port in the range from 8080 to 8089 has to be available on 127.0.0.1. <ul style="list-style-type: none">  If you run PRTG on localhost, do not use the DNS name http://localhost to log in to the PRTG web server, as this might considerably slow down the PRTG web interface. Use your local IP address or http://127.0.0.1 instead. ▪ All IP addresses: Use all IP addresses available on this computer (recommended): Use all IP addresses that are available on this computer and enable access to the PRTG web server for all of these IP addresses. <ul style="list-style-type: none">  The selected Transmission Control Protocol (TCP) port for the PRTG web server must be free on every available IP address. ▪ Specify IP addresses: Select specific IP addresses on which the PRTG web server runs. The list is specific to your system. Add a check mark in front of every IP address you want the PRTG web server to be available at. You can also select all addresses by clicking the Select all IP addresses button or deselect all addresses by clicking the Deselect all IP addresses button. Either the selected port or at least one port in the range from 8080 to 8089 has to be available on the specified IP address. <ul style="list-style-type: none">  Regardless of the selected setting above, one port in the range from 8080 to 8180 has to be available on the specified IP address so PRTG can create reports. The report engine tries to connect to the PRTG core server on one of these ports.

Setting	Description
TCP Port for Web Server	<p>  If PRTG does not find a network card on startup, it switches the IP setting to Localhost, 127.0.0.1 (PRTG is not accessible from other computers). This setting remains even if a network card is available later on. If you disabled or removed the network card on the PRTG core server system, check this setting again. </p> <p>  If you change this setting, PRTG needs to restart the PRTG core server to apply your changes. After clicking Save, a dialog box appears that asks you to confirm the restart. Click OK to trigger the restart. During the restart, all users of the PRTG web interface, of PRTG Desktop⁴²⁷⁵, or of PRTG Apps for Mobile Network Monitoring⁴²⁷⁸ are disconnected and reconnected. </p> <p>  This option is not available in PRTG Hosted Monitor. </p> <p> The PRTG web server provides access via the PRTG web interface and PRTG Desktop⁴²⁷⁵. Specify on which port the PRTG web server runs: </p> <ul style="list-style-type: none"> <li> <p>  Secure HTTPS server (port 443, recommended, mandatory for internet access): This setting is required if you want to access the PRTG core server via the internet. Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured HTTPS connection on port 443. </p> <p>  Although the connection is secure, you see an SSL certificate warning¹⁶⁹ in your browser when you log in to the PRTG web interface because the default certificate is unknown to your browser. You can install a different SSL certificate for PRTG. For more information, see section Using Your Own SSL Certificate with the PRTG Web Server⁴⁵³⁷. </p> <li> <p>  If port 80 is available, PRTG reserves it as well. If port 80 is not available, PRTG tries port 8080 as fallback. If this port is also not available, PRTG searches from port 8081 upwards for a free port. PRTG sends a ticket²⁴⁰ that shows you the currently used port number and switches back to port 80 as soon as it is available again. When users try to connect on port 80 via HTTP, they are redirected to port 443 via HTTPS. You can change this behavior by using a registry setting. If port 443 is not available, PRTG tries port 8443 as fallback. If this port is also not available, PRTG searches from port 8444 upwards for a free port. PRTG sends a ticket that shows you the currently used port number and switches back to port 443 as soon as it is available again. </p> <li> <p>  Unsecure HTTP server (default port 80, not recommended): Use the PRTG web server without SSL/TLS on port 80. This setting is not recommended for WAN connections. </p> <p>  If you use the PRTG web server without connection security on the internet, attackers could potentially spy on credentials that you enter in PRTG. We strongly recommend that you use this option only in a LAN. </p>

Setting	Description
Web Server Port	<ul style="list-style-type: none"> ▪ Expert configuration: Specify a custom port for the PRTG web server and the security of the connection. This option is intended for systems that already have a web server on the standard port. <ul style="list-style-type: none"> ❗ If PRTG always uses a fallback port after a server restart, check for other programs that use the same port as PRTG. For example, the Microsoft Microsoft Internet Information Services (IIS) web server also uses port 80 (port 443 for secure connections) by default and blocks it. Please disable such programs and services on startup. ❗ If you change this setting, PRTG needs to restart the PRTG core server to apply your changes. After clicking Save, a dialog box appears that asks you to confirm the restart. Click OK to trigger the restart. During the restart, all users of the PRTG web interface, of PRTG Desktop⁴²⁷⁵, or of PRTG Apps for Mobile Network Monitoring⁴²⁷⁸ are disconnected and reconnected. <p>☁ This option is not available in PRTG Hosted Monitor.</p> <p>This setting is only visible if you select Expert configuration above. Enter the TCP port number that you want the PRTG web server to run on. Enter an integer value.</p> <ul style="list-style-type: none"> ❗ If you use a secure connection and port 80 is free, PRTG reserves it as well. When users try to connect on port 80 via HTTP, they are redirected to the custom port via HTTPS. You can change this behavior by using a registry setting. ❗ If the defined port for a secure connection is not available, PRTG tries port 8443 as fallback. If this port is also not available, PRTG searches from port 8444 upwards for a free port. PRTG sends a ticket²⁴⁰ that shows you the currently used port number and switches back to the original port as soon as it is available again. ❗ If you change this setting, PRTG needs to restart the PRTG core server to apply your changes. After clicking Save, a dialog box appears that asks you to confirm the restart. Click OK to trigger the restart. During the restart, all users of the PRTG web interface, of PRTG Desktop⁴²⁷⁵, or of PRTG Apps for Mobile Network Monitoring⁴²⁷⁸ are disconnected and reconnected. <p>☁ This option is not available in PRTG Hosted Monitor.</p>
Web Server Security	<p>This setting is only visible if you select Expert configuration above. Specify if you want to use connection security:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ Use HTTPS (secured with SSL/TLS): Use a SSL/TLS secured HTTPS connection on a custom port as defined above. <ul style="list-style-type: none"> ❗ Although the connection is secure, you see an SSL certificate warning in your browser when you log in to the PRTG web interface, because the default certificate is unknown to your browser. You can install a different SSL certificate for PRTG later. For more information, see Using Your Own SSL Certificate with the PRTG Web Server⁴⁵³⁷. ▪ Do not use connection security (not recommended): This setting is not recommended for WAN connections. Use the PRTG web server without SSL/TLS on a custom port as defined above. <ul style="list-style-type: none"> ❗ If you use the PRTG web server without connection security on the internet, attackers could potentially spy on credentials you enter into PRTG. We strongly recommend that you use this option in a LAN only. ❗ If you change this setting, PRTG needs to restart the PRTG core server to apply your changes. After clicking Save, a dialog box appears that asks you to confirm the restart. Click OK to trigger the restart. During the restart, all users of the PRTG web interface, of PRTG Desktop⁴²⁷⁵, or of PRTG Apps for Mobile Network Monitoring⁴²⁷⁶ are disconnected and reconnected. <p>☁ This option is not available in PRTG Hosted Monitor.</p>
Connection Security	<p>Specify the security level that is used for connections from and to the PRTG web server:</p> <ul style="list-style-type: none"> ▪ High security (TLS 1.2): The PRTG web server only accepts high security connections from clients like web browser, apps, PRTG Desktop, or API clients. These clients must support modern forward secrecy cipher suites. ▪ Default security (TLS 1.2) (recommended): The PRTG web server only accepts high security connections from clients like web browsers, apps, PRTG Desktop, or API clients. These clients must support modern forward secrecy cipher suites. ▪ Weakened security (SSLv3, TLS 1.0, TLS 1.1, TLS 1.2): If you have clients that do not support the high or default security setting, you can choose this security level to connect. This might be necessary, for example, for older browsers, browsers running on old network components, or some default browsers on Android systems. Weakened security accepts SSLv3, TLS 1.0, TLS 1.1, and TLS 1.2 connections. <ul style="list-style-type: none"> ❗ We strongly recommend that you update your clients and then use the Default security (TLS 1.2) (recommended) or High security (TLS 1.2) setting.

Setting	Description
	<p>i If you set a registry key in previous PRTG versions to override the Secure Sockets Layer (SSL)/Transport Layer Security (TLS) version and cipher suites of PRTG web server or probe connections, the High security setting overrides the registry setting and only TLS 1.2 is allowed. If you select the Default security setting, the registry value overrides the default security setting and the connection security defined in the registry applies.</p> <p>i PRTG displays the SSL/TLS versions and cipher suites that are used for connections to and from the PRTG web server under Setup | PRTG Status⁴²³⁶.</p> <p>i If you change this setting, PRTG needs to restart the PRTG core server to apply your changes. After clicking Save, a dialog box appears that asks you to confirm the restart. Click OK to trigger the restart. During the restart, all users of the PRTG web interface, of PRTG Desktop⁴²⁷⁵, or of PRTG Apps for Mobile Network Monitoring⁴²⁷⁸ are disconnected and reconnected.</p> <p>☁ This option is not available in PRTG Hosted Monitor.</p>
Active IP Address/Port Combinations	<p>Shows all active combinations of IP addresses and ports on which the PRTG web server listens for web requests.</p> <p>i This setting is for your information only. You cannot change it.</p> <p>i PRTG internally uses port 8085 for report generation.</p> <p>☁ This option is not available in PRTG Hosted Monitor.</p>

Graph Settings

PRTG shows several graphs on the Overview tab of an object in the PRTG web interface. These are kept in RAM for fast display without causing extra CPU load or disk usage. The longer the time frames and the shorter the intervals are, the more memory is used for this. You can adapt the details for all four graphs. This setting also changes the caption of the objects' tabs in the [PRTG web interface](#)¹⁶³¹ and PRTG Desktop.

i If you change this setting, PRTG needs to restart the PRTG core server to apply your changes. After clicking Save, a dialog box appears that asks you to confirm the restart. Click OK to trigger the restart. During the restart, all users of the PRTG web interface, of [PRTG Desktop](#)⁴²⁷⁵, or of [PRTG Apps for Mobile Network Monitoring](#)⁴²⁷⁸ are disconnected and reconnected.

Setting	Description
Live Graph	<p>The live graph is available for sensors only. For the live graph, no fixed time span is specified, but you can define how many values are displayed. The actual time span covered by the live graph depends on the scanning interval set for the sensor you're viewing and is calculated automatically. By default, 120 Values is set. This results in a graph covering a time span of two hours if a 60-second scanning interval is set for the sensor. Other scanning intervals result in graphs covering different time spans. Choose from:</p> <ul style="list-style-type: none"> ▪ 60 Values: This corresponds to a live graph that covers a time span of one hour if a 1-minute scanning interval is set. This setting uses least RAM. We recommend this setting for installations with 10,000 sensors or more. ▪ 120 Values: This corresponds to a live graph that covers a time span of two hours if a 1-minute scanning interval is set. ▪ 240 Values: This corresponds to a live graph that covers a time span of four hours if a 1-minute scanning interval is set. ▪ 480 Values: This corresponds to a live graph that covers a time span of eight hours if a 1-minute scanning interval is set. ▪ 960 Values: This corresponds to a live graph that covers a time span of 16 hours if a 1-minute scanning interval is set. This setting uses most RAM.
Graph 1	<p>By default, this is the 2 days graph in the PRTG web interface. You can change it to more or less detail by choosing a time span and a monitoring interval average associated with it. Monitoring results are averaged regardless of the actual scanning interval set for the sensors. Choose from:</p> <ul style="list-style-type: none"> ▪ 1 day with 1 minute averages: Results in 1440 values. ▪ 1 day with 5 minutes averages: Results in 288 values. ▪ 1 day with 15 minutes averages: Results in 96 values. This setting uses least RAM. We recommend this setting for installations with 10,000 sensors or more. ▪ 2 days with 1 minute averages: Results in 2880 values. This setting uses most RAM. ▪ 2 days with 5 minutes averages: Results in 576 values. ▪ 2 days with 15 minutes averages: Results in 192 values. ▪ 4 days with 1 hour averages: Results in 96 values. This setting uses least RAM. We recommend this setting for installations with 10,000 sensors or more.
Graph 2	<p>By default, this is the 30 days graph in the PRTG web interface. You can change it to more or less detail by choosing a time span covered and a monitoring interval average associated with it. Choose from:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ 10 days with 1 hour averages: Results in 240 values. ▪ 20 days with 1 hour averages: Results in 480 values. ▪ 30 days with 1 hour averages: Results in 720 values. ▪ 30 days with 6 hour averages: Results in 120 values. This setting uses least RAM. We recommend this setting for installations with 10,000 sensors or more. ▪ 40 days with 1 hour averages: Results in 960 values. ▪ 40 days with 6 hour averages: Results in 160 values. ▪ 60 days with 1 hour averages: Results in 1440 values. This setting uses most RAM. ▪ 60 days with 6 hour averages: Results in 240 values.
Graph 3	<p>By default, this is the 365 days graph in the PRTG web interface. You can change it to more or less detail by choosing a time span covered and a monitoring interval average associated with it. Choose from:</p> <ul style="list-style-type: none"> ▪ 100 days with 1 day averages: Results in 100 values. This setting uses least RAM. We recommend this setting for installations with 10,000 sensors or more. ▪ 200 days with 1 day averages: Results in 200 values. ▪ 365 days with 1 day averages: Results in 365 values. ▪ 400 days with 1 day averages: Results in 400 values. ▪ 750 days with 1 day averages: Results in 750 values. This setting uses most RAM.

i Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How can I integrate Google Analytics into PRTG?

- <https://kb.paessler.com/en/topic/61406>

Which provider should I use for the Geo Maps feature of PRTG?

- <https://kb.paessler.com/en/topic/34603>

How do I get a Google Maps API key for use in PRTG?

- <https://kb.paessler.com/en/topic/32363>

How can I speed up PRTG—especially for large installations?

- <https://kb.paessler.com/en/topic/2733>

What placeholders can I use with PRTG?

- <https://kb.paessler.com/en/topic/373>

Which domains and ports does the Geo Maps feature use?

- <https://kb.paessler.com/en/topic/35823>























Which limitations apply when using the Google Maps API in PRTG?

- <https://kb.paessler.com/en/topic/7913>

How and where does PRTG store its data?

- <https://kb.paessler.com/en/topic/463>

Setup

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 - [My Account](#)  4125
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- [Contact Support](#) 


Others

There are some settings that you must make in the [PRTG Administration Tool](#) . For more details, see the sections:


- [PRTG Administration Tool on PRTG Core Server Systems](#) 
- [PRTG Administration Tool on Remote Probe Systems](#) 

8.12.2.2 Monitoring


In the monitoring settings, you can define global settings regarding scanning intervals, unusual and similar sensors detection, auto-discovery, and uptime threshold.

 If 15 minutes (900) seconds have passed since your last credential-based login and you open a system administration page from a different system administration page, PRTG asks you to enter your credentials again for security reasons. A dialog box appears. Enter your Login Name and Password and click OK to continue.

Scanning Intervals

 This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

 This option is not available in PRTG Hosted Monitor.

Setting	Description
Available Intervals	<p>Define the intervals available in the dropdown list of every object's settings . In the text field, enter one value in each line. Use s, m, h, and d to define seconds, minutes, hours, and days. By default, the following scanning intervals are available:</p> <ul style="list-style-type: none"> ▪ 30s: 30 seconds ▪ 1m: 60 seconds ▪ 5m: 5 minutes ▪ 10m: 10 minutes ▪ 15m: 15 minutes ▪ 30m: 30 minutes ▪ 1h: 1 hour ▪ 4h: 4 hours ▪ 6h: 6 hours ▪ 12h: 12 hours

Setting	Description
	<ul style="list-style-type: none"> ▪ 1d: 24 hours <p>i We recommend that you do not use intervals below 10 seconds to prevent system overload. Intervals below 10 seconds are not officially supported. The maximum supported scanning interval is 10 days.</p> <p>i PRTG might convert values that you enter to a more readable equivalent of the values. For example, if you enter 24h (24 hours), PRTG displays this as 1d (one day) in the dropdown list.</p> <p>i Valid values are positive integers followed by s, m, h, and d. You can also define specific points in time to indicate when PRTG executes scanning actions. Enter up to 50 concrete Coordinated Universal Time (UTC) points in time according to the formula @ UTC hh:mm , hh:mm. You do not need to use a space before and/or after the comma. However, PRTG always saves the entries with a space both before and after the comma.</p> <p>i Your local time might be different from the UTC time.</p> <p>■ For more information on how to set specific points in time as a scanning time for sensors, see the Knowledge Base: Can I set a sensor to run at a specific time?</p>

Unusual Detection

The Unusual Detection feature can set sensors to the Unusual [status](#)^[197] when there are values that are not typical for the time span in which they are measured. PRTG compares the current average values to the historic monitoring results for this purpose. If the current values show a big difference to the values that are normally retrieved by a sensor, this sensor indicates this with the Unusual status.

You can define the granularity of the unusual detection here (this means, how big the difference must be to cause the Unusual status). If you disable the unusual detection by setting both settings to Never, sensors never show the Unusual status.

- i** You can enable and disable unusual detection for specific devices, entire groups, and probes in the respective [object settings](#)^[226].
- i** Unusual detection requires sensor data from at least four weeks (28 to 34 days) to have enough data available for comparison. If less data is available, PRTG cannot calculate the Unusual status.

Setting	Description
Show Unusual When	<p>Define when a sensor shows the Unusual status by comparing the weekday. If you enable the detection here, the average of the values that were measured on the day before is compared to the average of the same weekday in previous weeks. Choose from:</p> <ul style="list-style-type: none"> ▪ Never: Disable unusual detection for weekday average.

Setting	Description
Show Unusual When	<ul style="list-style-type: none"> ▪ 24h average is <80% or >120% of weekday average: The average of the values measured on the day before is either lower than 80% or higher than 120% than usual on the same weekday. ▪ 24h average is <50% or >200% of weekday average: The average of the values measured on the day before is either lower than 50% or higher than 200% than usual on the same weekday. ▪ 24h average is <20% or >500% of weekday average (recommended): The average of the values measured on the day before is either lower than 20% or higher than 500% than usual on the same weekday. ▪ 24h average is <10% or >1,000% of weekday average: The average of the values measured on the day before is either lower than 10% or higher than 1,000% than usual on the same weekday. ▪ 24h average is <1% or >10,000% of weekday average: The average of the values measured on the day before is either lower than 1% or higher than 10,000% than usual on the same weekday. <p>For example, consider a traffic sensor that usually measures 100 MB average traffic on a weekday. If you choose the first option, the sensor would show the Unusual status if the average from the day before is below 80 MB or above 120 MB.</p> <p>Define when a sensor shows the Unusual status by comparing the hour of the day. If you enable the detection here, the average of the values that were measured in the hour before is compared to the average of the same hour on the same weekday in previous weeks. Choose from:</p> <ul style="list-style-type: none"> ▪ Never: Disable unusual detection for hour-of-day average. ▪ Hourly average is <80% or >120% of hour-of-day average: The average of the values measured in the hour before is either lower than 80% or higher than 120% than usual in this hour of this weekday. ▪ Hourly average is <50% or >200% of hour-of-day average: The average of the values measured in the hour before is either lower than 50% or higher than 200% than usual in this hour of this weekday. ▪ Hourly average is <20% or >500% of hour-of-day average (recommended): The average of the values measured in the hour before is either lower than 20% or higher than 500% than usual in this hour of this weekday. ▪ Hourly average is <10% or >1,000% of hour-of-day average: The average of the values measured in the hour before is either lower than 10% or higher than 1,000% than usual in this hour of this weekday. ▪ Hourly average is <1% or >10,000% of hour-of-day average: The average of the values measured in the hour before is either lower than 1% or higher than 10,000% than usual in this hour of this weekday.

Setting	Description
	Consider a traffic sensor that usually measures 10 MB average traffic within an hour. If you choose the first option, the sensor would show the Unusual status if the average from the hour before is below 8 MB or above 12 MB.
Record Unusual Events	<p>Define if you also want to record unusual events and display them on the Log tab of a sensor that shows the Unusual status:</p> <ul style="list-style-type: none"> ▪ Do not record unusual events ▪ Record and display unusual events on a sensor's Log tab (default)

Similar Sensors Detection

The Similar Sensors Detection feature enables PRTG to analyze sensor data for similarities. The detection runs in the background with low priority. The recommended setting for the analysis depth is to let PRTG automatically decide how many channels are analyzed. However, you can also override this setting.

i Similar sensors analysis requires sensor data from at least seven days to have enough data for comparison. If not enough data is available, no data is shown on the Similar Sensors Overview or in the Similar Sensors section on a sensor's Overview tab. For more information, see section [Similar Sensors](#) ^[217].

i When similar sensors analysis is turned off or if you have exceeded 1,000 sensors and have chosen the automatic analysis depth option, the Similar Sensors Overview is not shown in the [main menu bar](#) ^[282].

Setting	Description
Analysis Depth	<p>Define the number of channels PRTG analyzes to detect similarities between sensors or turn the analysis off:</p> <ul style="list-style-type: none"> ▪ Manage automatically based on sensor count (recommended): The analysis depth depends on the total number of sensors you have configured. PRTG analyzes all channels for up to 500 sensors, and only the primary channels for up to 1,000 sensors. For more than 1,000 sensors, the analysis is turned off. This is the default setting in PRTG on premises. ▪ Analyze primary channels only: Only the primary channels of sensor are analyzed. Be aware of potentially high CPU load on the PRTG core server system when choosing this setting for more than 1,000 sensors. ▪ Analyze all channels (higher CPU load): Similarity detection is applied to all channels. Be aware of potentially high CPU load on the PRTG core server system when choosing this setting for more than 500 sensors.

Setting	Description
	<ul style="list-style-type: none"> ▪ Turn analysis off: No similarity detection takes place. Choose this option if you are not interested in the analysis results or if you want to keep the CPU load on the PRTG core server system at a minimum. <p>☁ This is the default setting in PRTG Hosted Monitor.</p>

Recommended Sensors Detection

The Recommended Sensors Detection feature enables PRTG to analyze devices in your network and suggest sensors that are still missing for a complete monitoring setup. The analysis runs with low priority in the background when you add a new device, when the last analysis was executed more than 30 days ago, or when you [manually start](#)^[222] it.

■ See section [Recommended Sensors](#)^[221] for more information, for example, on [SNMP settings](#)^[222], on the [results](#)^[222] you get and on how to [add the suggested sensors](#)^[223].

☁ This option is not available in PRTG Hosted Monitor.

Setting	Description
Detection Engine	<p>Define if you want PRTG to analyze your devices to recommend useful sensors:</p> <ul style="list-style-type: none"> ▪ Manage automatically based on sensor count (recommended): PRTG runs the detection engine for installations with up to 5,000 sensors by default. If you exceed this threshold, PRTG disables the detection engine for performance reasons. We recommend that you set this option so you do not miss any important monitoring data about your network, without risking running into performance issues. ▪ Always show recommendations: PRTG always analyzes your devices even if your installation exceeds 5,000 sensors and you never miss any suggestion to complete your monitoring. If you enable this option, keep this setting in mind in case you encounter performance issues. ▪ Turn recommendations off: PRTG never recommends sensors. Select this option if you have performance issues with PRTG or if you do not want to see this information on devices' Overview tabs^[201]. Moreover, you do not find the option Recommend Now in device context menus^[266] or on Overview tabs anymore.

Auto-Discovery


Setting	Description
Run Discovery At	Define the time when PRTG automatically runs an auto-discovery ^[296] in your network if you configured a daily or weekly Schedule in the auto-discovery group settings ^[296] . Choose a full hour between 0:00 and 23:00. We recommend that you choose a time when there is little user activity in your network because auto-discoveries can produce a certain amount of load.

Experimental Features

Setting	Description
Beta Sensors	<p>Select if you want to enable or disable sensors in beta status:</p> <ul style="list-style-type: none"> ▪ Disable (default): Disable sensors in beta status. ▪ Enable: Enable sensors in beta status. <ul style="list-style-type: none"> ⓘ Beta sensors then become available in the Add Sensor^[367] dialog. <ul style="list-style-type: none"> ⓘ If you disable beta sensors, existing beta sensors change to the Unknown status. ⓘ The operating methods and the available settings of sensors in beta status can change at any time. Do not expect that all functions work properly, or that this sensor works as expected at all. Be aware that sensors in beta status can be removed from PRTG at any time.
PowerShell Security Enhancement	<p>Select if you want to improve PowerShell security by hiding command-line parameters in the process explorer and the event log:</p> <ul style="list-style-type: none"> ▪ Enable (default): Enable PowerShell security enhancement. <ul style="list-style-type: none"> ⓘ Enabling this feature can also improve the performance of PowerShell sensors. ⓘ The operating methods of this feature can change at any time. Do not expect that all functions work properly, or that this feature works as expected at all. Be aware that this feature can be removed from PRTG at any time. ▪ Disable: Disable PowerShell security enhancement.

Uptime Threshold

Setting	Description
Desired Minimum Uptime	Define which uptime in percent PRTG regards as 100 percent. This setting affects the colors shown next to the sensor icons in reports. Select one of the predefined values between 90 % and 99.999 %.

 Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

More

■ KNOWLEDGE BASE

How can I speed up PRTG—especially for large installations?

- <https://kb.paessler.com/en/topic/2733>
















How and where does PRTG store its data?









- <https://kb.paessler.com/en/topic/463>

Can I set a sensor to run at a specific time?

- <https://kb.paessler.com/en/topic/3723>

Setup

- [Account Settings](#)  4123
 - [My Account](#)  4123
 - [Notification Templates](#)  4131
 - [Notification Contacts](#)  4163
 - [Schedules](#)  4169
- [System Administration](#)  4175
 - [User Interface](#)  4175
 - [Monitoring](#)  4187
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 - [Core & Probes](#)  4202
 - [User Accounts](#)  4211
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 - [Cluster Status](#)  4248
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Others

There are some settings that you must make in the [PRTG Administration Tool](#)  4346. For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#)  4347
- [PRTG Administration Tool on Remote Probe Systems](#)  4371







8.12.2.3 Notification Delivery

In the Notification Delivery settings, you can define and test global settings for notification delivery. If you do not want to use a specific notification method, leave the respective fields empty.

 If 15 minutes (900) seconds have passed since your last credential-based login and you open a system administration page from a different system administration page, PRTG asks you to enter your credentials again for security reasons. A dialog box appears. Enter your Login Name and Password and click OK to continue.

Note

You have to take the following four steps to set up and use notifications:

1. Check and set up the [notification delivery](#)  4194 settings if you use PRTG on premises. These settings define how PRTG sends messages.
2. Check and set up [notification contacts](#)  4163 for the user accounts. These contacts define the recipients to which PRTG sends notifications.
3. Check and set up several [notification templates](#)  4131. These templates define the notification methods and their content.
 -  You can also check or edit notification templates via the Notification Triggers tab. For more information, see section [Notification Triggers Settings](#)  3987.
4. Check and set up [notification triggers settings](#)  3987 for objects. These triggers define when PRTG sends notifications.

i Usually, there are three successive attempts to deliver a notification. If all of these attempts fail, the notification is lost. To never miss a notification, we recommend that you always set up at least two notifications with different notification methods for a notification trigger, for example, one email notification and one SMS notification. If delivery via email fails, PRTG can still notify you via smartphone as a fallback. For example, use the latency setting of a [state trigger](#) ³⁸⁸⁸ to choose a notification with a different notification method than in the first trigger condition, or set up a second trigger with a different notification method for the corresponding object.








■ See sections [Notifications Based on Sensor Limits Step by Step](#) ⁴⁰³⁴ and [Notifications Based on Libraries Step by Step](#) ⁴⁰⁴² for step-by-step guides that describe potential notification setups.

■ Custom notification scripts are also available in the [PRTG Sensor Hub](#).

SMTP Delivery

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

Setting	Description
SMTP Delivery Mechanism	<p>Define how PRTG sends emails using the Simple Mail Transfer Protocol (SMTP):</p> <ul style="list-style-type: none"> ▪ Direct delivery using built-in email relay server (default): Use the SMTP relay server built into PRTG. This server manages its own email queue. For each email, it looks up the target SMTP server via the MX record of the target domain, and sends the email. ▪ Use SMTP relay server (recommended in LANs/NATs): Set up your own SMTP relay server to send emails. Enter data below. ▪ Use two SMTP relay servers (primary and fallback server): Set up two SMTP relay servers with one as primary and one as fallback server. Enter data below. <p>i If you monitor the IT infrastructure in your network address translation (NAT) or LAN, using your own LAN-based relay server ensures faster delivery of notification emails.</p> <p>☁ This option is not available in PRTG Hosted Monitor. PRTG Hosted Monitor uses SendGrid for email notifications. For more information, see the Paessler website: FAQ – PRTG Hosted Monitor.</p>
Sender Email	<p>Enter an email address to use as sender of all emails. This setting is global and applies to all email notifications by default. You can override the sender email in the settings of individual notifications ⁴¹³⁸.</p>
Sender Name	<p>Enter a name to use as sender of all emails. This setting is global and applies to all email notifications by default. You can override the sender name in the settings of individual notifications.</p>

Setting	Description
	<p> If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
HELO Ident	<p>Enter the HELO Ident for SMTP. This must be a unique name, preferably the Domain Name System (DNS) name of the PRTG core server system. See SMTP RFC 2821: The sender-SMTP must ensure that the domain parameter in a HELO command is a valid principal host domain name for the client host.</p> <p> This option is not available in PRTG Hosted Monitor.</p>
SMTP Relay Server	<p>This setting is only visible if you select SMTP relay server above. Enter the IP address or DNS name of the SMTP relay server.</p> <p> This option is not available in PRTG Hosted Monitor.</p>
SMTP Relay SMTP Port	<p>This setting is only visible if you select SMTP relay server above. Enter the port number that the SMTP relay server runs on. The standard port is 25.</p> <p> This option is not available in PRTG Hosted Monitor.</p>
SMTP Relay Authentication	<p>This setting is only visible if you select SMTP relay server above. Select the kind of authentication required for the SMTP server:</p> <ul style="list-style-type: none"> ▪ No authentication is required: Use SMTP without authentication. ▪ Use standard SMTP authentication: Use standard authentication. ▪ SASL authentication is required: Use secure authentication via Simple Authentication and Security Layer (SASL). <p> This option is not available in PRTG Hosted Monitor.</p>
SMTP Relay User Name	<p>This setting is only visible if you select Use standard SMTP authentication above. Enter a valid user name.</p> <p> This option is not available in PRTG Hosted Monitor.</p>
SMTP Relay Password	<p>This setting is only visible if you select Use standard SMTP authentication above. Enter a valid password.</p> <p> This option is not available in PRTG Hosted Monitor.</p>

Setting	Description
Connection Security	<p>This setting is only visible if you select SMTP relay server above. Define the connection security for SMTP connections:</p> <ul style="list-style-type: none"> ▪ Use SSL/TLS if supported (default): Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection. ▪ Do not use connection security: Use an unsecured connection with plain text transfer. <p>☁ This option is not available in PRTG Hosted Monitor.</p>
SSL/TLS Method	<p>This setting is only visible if you select SMTP relay server and connection security above. It is only relevant for secure connections. Select the SSL or TLS version that your SMTP device supports. We recommend that you use this option. If you do not get a connection, try with a different setting. Choose from:</p> <ul style="list-style-type: none"> ▪ SSLv2 or SSLv3 (default) ▪ SSLv3 ▪ TLS 1.0 ▪ TLS 1.1 ▪ TLS 1.2 <p>☁ This option is not available in PRTG Hosted Monitor.</p>
SMTP Relay Server (Fallback)	
SMTP Relay SMTP Port (Fallback)	
SMTP Relay Authentication (Fallback)	<p>These fields are only visible if you select the option for two SMTP relay servers above. See also the settings that you made for your primary SMTP relay server.</p>
Connection Security (Fallback)	<p>☁ This option is not available in PRTG Hosted Monitor.</p>
SSL/TLS Method (Fallback)	
SMTP Relay User Name (Fallback)	
SSL Method (Fallback)	

Setting	Description
SMTP Relay User Name (Fallback)	
SMTP Relay Password (Fallback)	
Test SMTP Settings	<p>Click Test SMTP Settings to test your SMTP notification delivery configuration.</p> <ul style="list-style-type: none"> ▪ Email Address: Enter an email address to send the test email notification to. ▪ Subject: Enter a subject for the test email notification. <p>☁ This option is not available in PRTG Hosted Monitor.</p>

SMS Delivery

i Although PRTG has built-in support for the application programming interface (API) of some SMS providers, we cannot officially provide support regarding these SMS service providers. If you have technical questions about SMS delivery beyond PRTG, contact your SMS provider directly.

i Instead of using a preconfigured provider, you can always use a custom URL that enables you to use extended parameters (this is also an alternative when using providers for which we offer preconfigured options).


i You need an internet connection to send text messages via the HTTP API.


■ For information about sending SMS via separate hardware using third-party software, see the Knowledge Base: [How can I send SMS text message notifications via a modem or a mobile phone with PRTG?](#)

Setting	Description
Configuration Mode	<p>Define a mode for the SMS delivery configuration:</p> <ul style="list-style-type: none"> ▪ Disable SMS delivery: Do not use SMS delivery. ▪ Select an SMS provider from a list of providers: Select a provider from a list below. ▪ Enter a custom URL for a provider not listed: Use a different provider and manually enter the service URL below.
Service Provider	<p>This setting is only visible if you select Select an SMS provider from a list of providers above. Select a service provider from the list. Choose between:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ BulkSMS All regions (except South Africa): Enter a User Name and Password below. <ul style="list-style-type: none"> ▫ URL: <code>https://www.bulksms.co.uk:443/eapi/submission/send_sms/2/2.0</code> ▫ Port: 443 ▪ BulkSMS South Africa: Enter a User Name and Password below. <ul style="list-style-type: none"> ▫ URL: <code>https://bulksms.2way.co.za:443/eapi/submission/send_sms/2/2.0</code> ▫ Port: 443 ▪ Agile Telecom: Enter a User Name and Password below. <ul style="list-style-type: none"> ▫ URL: <code>http://agiletelecom.com/smshurricane3.0.asp</code> ▫ Port: 80 ▪ Esendex: Enter a User Name, Password, and Account below. <ul style="list-style-type: none"> ▫ URL: <code>https://www.esendex.com/secure/messenger/formpost/SendSMS.aspx</code> ▫ Port: 443 <p>i Some providers might require a port configuration in your firewall. Use the respective port from the list above.</p>
User Name	This setting is only visible if you select Select an SMS provider from a list of providers above. Enter a user name for the service provider account.
Password	This setting is only visible if you select Select an SMS provider from a list of providers above. Enter a password for the service provider account.
Account	This setting is only visible if you select Select an SMS provider from a list of providers and Esendex above. Enter the account number or the API ID to connect your account if your provider asks you to register. Enter a string or leave the field empty.
Custom URL	<p>This setting is only visible if you select Enter a custom URL for a provider not listed above. From the documentation of your SMS provider, enter the service URL that is used to send SMS messages.</p> <p>Use the following placeholders for the recipient phone number and the text message:</p> <ul style="list-style-type: none"> ▪ %SMSNUMBER ▪ %SMSTEXT

Setting	Description
	<p>i Use the GET method to request the custom URL. POST requests are not supported.</p>
HTTP Authentication	<p>This setting is only visible if you select Enter a custom URL for a provider not listed above. Select if PRTG uses HTTP basic authentication when it calls the custom URL of your SMS provider:</p> <ul style="list-style-type: none"> ▪ Do not use HTTP basic authentication (default) ▪ Use HTTP basic authentication <p>i HTTP basic authentication is necessary if the custom URL reads like https://[username]:[password]@my.custom.sms.provider/.</p>
Custom SNI	<p>This setting is only visible if you select Enter a custom URL for a provider not listed above.</p> <p>Define if PRTG sends the Server Name Identification (SNI) extension to the Transport Layer Security (TLS) protocol along with the HTTP request:</p> <ul style="list-style-type: none"> ▪ Do not send SNI (default): PRTG does not send the SNI when it executes the HTTP action. ▪ Send SNI: PRTG sends the SNI when it calls the target URL. Specify the SNI below.
Encoding for SMS	<p>This setting is only visible if you select Enter a custom URL for a provider not listed above. Define the encoding of the URL string that PRTG sends to your provider:</p> <ul style="list-style-type: none"> ▪ ANSI local system code page (default) ▪ UTF-8 ▪ UTF-16
Virtual Host (SNI)	<p>Enter the SNI name that the endpoint configuration requires. Usually, this is the fully qualified domain name (FQDN) of the virtual host.</p>
Maximum Length of Text	<p>Some SMS providers do not allow SMS messages that exceed a certain amount of characters. PRTG restricts the number of characters according to the length specified in this field. A value of 0 means the SMS is sent at its full length.</p>
Test SMS Settings	<p>Click Test SMS Settings to test your SMS notification delivery configuration.</p> <ul style="list-style-type: none"> ▪ Number: Enter a phone number to send the test SMS notification to. ▪ Message: Enter a message for the test SMS notification.

 The notification methods Send SMS/Pager Message and Execute HTTP Action use the central proxy settings defined for your PRTG core server. For details, see section [Core & Probes](#)⁴²⁰³ (section Proxy Configuration).

 Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How can I send SMS text message notifications via a modem or a mobile phone with PRTG?

- <https://kb.paessler.com/en/topic/393>

Which URLs does PRTG use for its preconfigured SMS providers?

- <https://kb.paessler.com/en/topic/13123>

Why do I get a connection timeout message when sending SMS via bulksms?

- <https://kb.paessler.com/en/topic/12253>

How can PRTG send instant messages to Jabber, ICQ, MSN, Yahoo, etc., using external software?

- <https://kb.paessler.com/en/topic/14803>

Can Gmail / Google Apps / G-Suite be used for SMTP relay?

- <https://kb.paessler.com/en/topic/2823>

How can I enable notification delivery logging?

- <https://kb.paessler.com/en/topic/55363>

Can I use Microsoft Office 365 as SMTP relay server for PRTG email delivery?

- <https://kb.paessler.com/en/topic/75534>

PAESSLER WEBSITE

FAQ – PRTG Hosted Monitor





















- <https://www.paessler.com/prtg-hosted-monitor/faq>

You can find custom notification scripts in the PRTG Sensor Hub

- <https://www.paessler.com/sensor-hub>

Setup

- [Account Settings](#)⁴¹²³
 - [My Account](#)⁴¹²³
 - [Notification Templates](#)⁴¹³¹

- [Notification Contacts](#)  4163
- [Schedules](#)  4169
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Others

There are some settings that you must make in the [PRTG Administration Tool](#)  4346. For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#)  4347
- [PRTG Administration Tool on Remote Probe Systems](#)  4371

8.12.2.4 Core & Probes

On the Core & Probes tab, you can define settings for the PRTG core server as well as for probe connections if you use remote probes or mini probes.

 If you cannot save changes to Core & Probes settings because you get an Error (Bad Request) with the message [Active Directory Domain not accessible](#), ensure that you provide the correct access type for your domain in section [Active Directory Integration](#)  4207. For example, change Use the PRTG core server service account (usually Local System) to Use explicit credentials and provide correct credentials for the domain. PRTG automatically sets the access type to Use the PRTG core server service account (usually Local System) by default, so you might need to change this.

☁ If 15 minutes (900) seconds have passed since your last credential-based login and you open a system administration page from a different system administration page, PRTG asks you to enter your credentials again for security reasons. A dialog box appears. Enter your Login Name and Password and click OK to continue.

ⓘ This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

Proxy Configuration

☁ This option is not available in PRTG Hosted Monitor.


Setting	Description
Use Proxy Server	<p>We recommend that you use PRTG with a direct internet connection. However, if you need to use a proxy, you can configure the relevant settings here. Choose between:</p> <ul style="list-style-type: none"> ▪ No, use direct connection to the internet (default): Do not use a proxy. Use this setting if a direct internet connection to the PRTG core server system is available. ▪ Yes, in our network a proxy is mandatory: Define proxy settings below. <p>ⓘ Proxy settings are valid for auto-update⁴²⁵⁷, activating the product¹¹⁰, obtaining Geo Maps⁴⁰²⁶ tiles, and for sending out HTTP, push, and SMS text message notifications⁴¹³⁸.</p>
Proxy Server	<p>This setting is only visible if you enable Yes, in our network a proxy is mandatory above. Enter the address of the proxy server that you use for outbound connections. Enter a valid address.</p>
Port	<p>This setting is only visible if you enable Yes, in our network a proxy is mandatory above. Enter the port number of the proxy server that you use for outbound connections. Enter an integer value.</p>
Use Proxy Credentials	<p>This setting is only visible if you enable Yes, in our network a proxy is mandatory above. Determine whether the proxy server needs credentials or not:</p> <ul style="list-style-type: none"> ▪ No, there are no credentials necessary: Do not use credentials for proxy connections. ▪ Yes, the proxy server requires credentials: Define credentials (username and password) below.
User Name	<p>This setting is only visible if you enable Yes, the proxy server requires credentials above. Enter a user name for proxy authentication. Enter a string.</p>

Setting	Description
Password	This setting is only visible if you enable Yes, the proxy server requires credentials above. Enter a password for proxy authentication. Enter a string.

Probe Connection Settings

Setting	Description
Probe Connections IP Addresses	<p>Define how PRTG handles incoming connections from probes:</p> <ul style="list-style-type: none"> Local Probe only, 127.0.0.1 (PRTG is not accessible for remote probes): The PRTG core server^[131] only accepts local probe connections. You cannot use remote probes^[450] with this setting enabled. This is the default setting in PRTG on premises. All IP addresses available on this computer: The PRTG core server accepts incoming connections from remote probes, no matter on which IP address of the PRTG core server they come in. <p>☁ This is the default setting in PRTG Hosted Monitor.</p> <ul style="list-style-type: none"> Specify IP addresses: The PRTG core server accepts incoming connections from remote probes only on the selected IP address(es) of the PRTG core server. In the list, select the IP addresses by adding a check mark in front of the desired IPs. <p>i You can also change this setting in the PRTG Administration Tool on PRTG Core Server Systems^[435].</p> <p>i If you change this setting, PRTG needs to restart the PRTG core server to apply your changes. After clicking Save, a dialog box appears that asks you to confirm the restart. Click OK to trigger the restart. During the restart, all users of the PRTG web interface, of PRTG Desktop^[427], or of PRTG Apps for Mobile Network Monitoring^[427] are disconnected and reconnected.</p> <p>☁ This option is not available in PRTG Hosted Monitor.</p>
Access Keys	<p>Enter a list of access keys for remote probe connections. Enter one access key per line. Every remote probe that wants to connect to this PRTG installation has to use one of these keys.</p> <ul style="list-style-type: none"> For more information on how to set an access key for a remote probe, see section PRTG Administration Tool^[437].

Setting	Description
Allow IP Addresses	<p>Enter a list of remote probe IPs or Domain Name System (DNS) names that are accepted when connecting to this PRTG core server. Enter one IP address or DNS name per line. The local probe (127.0.0.1) is always allowed automatically. PRTG checks the list of allowed addresses before the list of denied addresses.</p> <p><i>[Empty]</i> : An empty field does not allow any remote probes (only the local probe). Enter IP addresses or DNS names to allow remote probe connections.</p> <ul style="list-style-type: none"> ❗ We recommend that you use IP addresses instead of DNS names because DNS name resolution might be cached. ▪ any: Enter the word any to automatically allow all remote probe connections. <p>☁ This is the default setting in PRTG Hosted Monitor.</p> <ul style="list-style-type: none"> ❗ We recommend that you only use this option in intranets in PRTG on premises. ❗ If the IP address of a remote probe changes regularly (for example, because of an internet provider assigning IP addresses dynamically), enter the potential IP range for the remote probe or use the any option. ❗ You can use the PRTG syntax for IP address ranges here. For more information, see section Define IP Address Ranges⁴⁴⁸³.
Deny IP Addresses	<p>Enter a list of remote probe IPs or DNS names that are not accepted when connecting to this PRTG core server. Enter one IP address or DNS name per line. You can use this to explicitly deny connections from remote probes that you do not want to include in your setup either at all or for a certain time.</p> <p>Access to IP addresses or DNS names that you enter in Allow IP Addresses is denied if you enter them here. You can use this to allow access to an IP address range in Allow IP Addresses, but to deny access to a single IP address from this IP address range here. You can use the PRTG syntax for IP address ranges here (see section Define IP Address Ranges⁴⁴⁸³).</p> <ul style="list-style-type: none"> ❗ If you deny the IP address or DNS name of a remote probe, you must restart the PRTG core server to apply your changes. ❗ We recommend that you use IP addresses rather than DNS names, because DNS name resolution might be cached.
Deny GIDs	<p>Enter a list of global IDs (GID) Enter one GID per line. PRTG denies access to matching GIDs. If you remove a remote probe from the device tree or if you deny a remote probe after installation, its GID is automatically entered here. The remote probe is no longer able to connect. Denying GIDs is more precise than denying IPs, where other remote probes at the same location could be excluded, too.</p>

Setting	Description
Connection Security	<p>i A GUID is the ID that PRTG attributes to every probe that you include in your monitoring.</p> <p>Specify the security level for connections to and from the PRTG core server:</p> <ul style="list-style-type: none"> <li>▪ High security (TLS 1.2): The PRTG web server only accepts high security connections from probes. <li>▪ Default security (TLS 1.1, TLS 1.2) (recommended): The PRTG web server additionally accepts connections secured with TLS 1.1 from probes. <li>▪ Weakened security (SSLv3, TLS 1.0, TLS 1.1, TLS 1.2): If you have probes that do not support high or default security connections because you updated from an older PRTG version, you can use this security level to connect and to update older probes. After updating, we recommend that you use the default or high security setting. <p>i If you set a registry key in previous PRTG versions to override the Secure Sockets Layer (SSL)/Transport Layer Security (TLS) version and cipher suites of PRTG web server or probe connections, the High security setting overrides the registry setting and only TLS 1.2 is allowed. If you select the Default security setting, the registry value overrides the default security setting and the connection security defined in the registry applies.</p> <p>i If you change this setting, PRTG needs to restart the PRTG core server to apply your changes. After clicking Save, a dialog box appears that asks you to confirm the restart. Click OK to trigger the restart. During the restart, all users of the PRTG web interface, of PRTG Desktop, or of PRTG Apps for Mobile Network Monitoring are disconnected and reconnected.</p> <p> This option is not available in PRTG Hosted Monitor.</p>
Mini Probes	<p>Define if you want to allow mini probe connections to your PRTG core server. If you want to use mini probes, you need to configure the PRTG web server to accept connections from mini probes here and choose the secure HTTPS server option in the web server settings.</p> <p>Choose from:</p> <ul style="list-style-type: none"> <li>▪ No Mini Probes: Mini probes cannot connect to the PRTG web server. You are not able to monitor with mini probes if you choose this option. <li>▪ Allow Mini Probes to connect to the web server: Mini probes can connect to the PRTG web server and use the defined TCP port for the web server for this purpose. The default port for secure connections is 443.

Setting	Description
	<ul style="list-style-type: none"> Allow Mini Probes to connect to an extra port: Mini probes can connect to the PRTG web server via a specific port. Use this if you do not want the whole PRTG web server to be reachable from other networks all the time only because of mini probes. <ul style="list-style-type: none"> SSL/TLS must be enabled on the mini probe port. For more information, see section Mini Probe API⁴⁴⁵⁵. See also the Knowledge Base: Where can I find PRTG Mini Probes which are ready to use? If you change this setting, PRTG needs to restart the PRTG core server to apply your changes. After clicking Save, a dialog box appears that asks you to confirm the restart. Click OK to trigger the restart. During the restart, all users of the PRTG web interface, of PRTG Desktop⁴²⁷⁵, or of PRTG Apps for Mobile Network Monitoring⁴²⁷⁸ are disconnected and reconnected. This option is not available in PRTG Hosted Monitor.
Mini Probe Port	<p>This setting is only visible if you select Allow Mini Probes to connect to an extra port above. Enter the number of the port for mini probe connections. Ensure that SSL is available on this port.</p> <ul style="list-style-type: none"> If you change this setting, PRTG needs to restart the PRTG core server to apply your changes. After clicking Save, a dialog box appears that asks you to confirm the restart. Click OK to trigger the restart. During the restart, all users of the PRTG web interface, of PRTG Desktop⁴²⁷⁵, or of PRTG Apps for Mobile Network Monitoring⁴²⁷⁸ are disconnected and reconnected. This option is not available in PRTG Hosted Monitor.

Active Directory Integration

This option is not available in PRTG Hosted Monitor.

Setting	Description
Domain Name	<p>To use the Active Directory integration, enter the name of your local domain. Enter a string or leave the field empty.</p> <ul style="list-style-type: none"> PRTG does not support trusted domains or AD subdomains. For more important notes about AD integration, see section Active Directory Integration⁴³⁸⁶, section Notes and Limitations.

Setting	Description
Domain Access	<p>Define how PRTG performs Active Directory queries:</p> <ul style="list-style-type: none"> ▪ Use domain name: Use the entry in the Domain Name field above. ▪ Specify domain controllers: Use specific domain controllers. Specify the domain controllers below.
Primary Domain Controller	<p>This setting is only visible if you select Specify domain controllers above. Enter the DNS name of the primary domain controller.</p>
Backup Domain Controller (optional)	<p>This setting is only visible if you select Specify domain controllers above. Optionally enter the DNS name of the backup domain controller or leave the field empty.</p>
LDAP Connection Security	<p>Define if you want to use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured connection to the LDAP server:</p> <ul style="list-style-type: none"> ▪ Use LDAP without connection security: Do not use an SSL/TLS-secured connection. ▪ Use LDAP over SSL: Use an SSL/TLS-secured connection.
Access Type	<p>Define which user account PRTG uses to configure Active Directory (AD) access:</p> <ul style="list-style-type: none"> ▪ Use the PRTG core service account (usually LOCAL SYSTEM): Use the same Windows user account configured for the PRTG core server service. In a default installation, this is the "local system" Windows user account. If this account does not have the right to query all groups of your Active Directory, do not use this option. ▪ Use explicit credentials: Define a user account that PRTG uses to authenticate against the Active Directory. This should be a user account with full access to all of your Active Directory groups. <p>PRTG uses this account to query the AD for available groups.</p>
Access User Name	<p>This setting is only visible if you select Use explicit credentials above. Enter the Windows user account name that PRTG uses to authenticate for Active Directory configuration.</p>
Access Password	<p>This setting is only visible if you select Use explicit credentials above. Enter the password for the Windows user account that PRTG uses to authenticate for Active Directory configuration.</p>




Historic Data Purging


Data purging enables you to automatically delete unnecessary data to free up disk space and improve system performance. You can define different time spans for several kinds of data. Select here for how many days historic data remains accessible.

For more information on storage locations, see section [Data Storage](#).

PRTG Hosted Monitor purges historic data using the default purging limits of PRTG on premises (see the table below). You cannot modify historic data purging limits in PRTG Hosted Monitor.

Setting	Description
Log File Records	<p>Define how long records in the system logfile Log Database.db are kept. Enter a value in days. All entries older than this value are deleted from the logfile automatically. This also affects the content of the Logs tab of monitoring objects like sensors. Keep this value as low as possible to enhance system performance.</p> <p>i The default value is 30 days.</p>
Web Server Log Records	<p>PRTG creates one web server logfile every day. Define how many web server logfiles are kept. Enter a value in days. All web server logfiles older than this value are deleted automatically.</p> <p>i The default value is 30 days.</p>
Historic Sensor Data	<p>Define for how many days historic sensor data is kept for all sensors. It is used to create reports of monitoring data. Enter a value in days.</p> <p>Depending on the used intervals and the number of sensors in your setup, the file containing this data can become large. For smaller installations (up to 500 sensors) a value of 365 is usually fine.</p> <p>i Historic sensor data is the basis for reports on monitoring data. If you decrease this value, less historic monitoring data is available.</p> <p>i The default value is 365 days.</p> <p>i The maximum value is 9999 days.</p>
Toplist Records	<p>Define how long toplist records for xFlow (NetFlow, jFlow, sFlow, IPFIX) and Packet Sniffer sensors are kept. Enter a value in days. We recommend that you use 30 days here.</p> <p>i Old toplist data is deleted automatically as soon as a limit of 2 GB is reached. The oldest data is deleted from the database first.</p> <p>i The default value is 30 days.</p>
Closed Tickets	<p>Define how long tickets that are in status closed are kept. Enter a value in days.</p> <p>i The default value is 365 days.</p>
Reports	<p>Reports generated in PDF format are stored on disk for later reference. Define the maximum age for these reports. Enter a value in days. All reports that are older than this value are deleted automatically.</p>

Setting	Description
	<p> The default value is 365 days.</p>
Configuration Auto-Backups	<p>PRTG creates one backup of your configuration every day. Define the maximum age for these backups. Enter a value in days. All configuration backup files that are older than this value are deleted automatically.</p> <p> The default value is 365 days.</p>
Screenshots of HTTP Full Web Page Sensor	<p>Define how long the screenshots of the HTTP Full Web Page sensor¹²⁷⁷ (PhantomJS browser engine) are kept. Enter a value in days. PRTG deletes older screenshots with every sensor scan.</p> <p> The default value is 10 days.</p>

 Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

Remote Probe Setup

For more information about setting up remote probes, see section [Add Remote Probe](#)⁴⁵⁰¹.

More













■ KNOWLEDGE BASE

Where can I find PRTG Mini Probes which are ready to use?

- <https://kb.paessler.com/en/topic/61215>

Setup

- [Account Settings](#)⁴¹²³
 - [My Account](#)⁴¹²³
 - [Notification Templates](#)⁴¹³¹
 - [Notification Contacts](#)⁴¹⁶³
 - [Schedules](#)⁴¹⁶⁹
- [System Administration](#)⁴¹⁷⁵
 - [User Interface](#)⁴¹⁷⁵
 - [Monitoring](#)⁴¹⁶⁷
 - [Notification Delivery](#)⁴¹⁹⁴
 - [Core & Probes](#)⁴²⁰²
 - [User Accounts](#)⁴²¹¹


- [User Groups](#)  4219
- [Administrative Tools](#)  4225
- [Cluster](#)  4229
- [Single Sign-On](#)  4232
- [PRTG Status](#)  4236
- [System Status](#)  4236
- [Cluster Status](#)  4248
- [License Information](#)  4251
- [Auto-Update](#)  4257
- [Optional Downloads](#)  4262
- [Help and Support Center](#)  4264
- [Contact Support](#)  4266


Others

There are some settings that you must make in the [PRTG Administration Tool](#)  4346. For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#)  4347
- [PRTG Administration Tool on Remote Probe Systems](#)  4371

8.12.2.5 User Accounts



 This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

 If 15 minutes (900) seconds have passed since your last credential-based login and you open a system administration page from a different system administration page, PRTG asks you to enter your credentials again for security reasons. A dialog box appears. Enter your Login Name and Password and click OK to continue.

Administrators can add new user accounts, edit user accounts, and define which user groups that users are members of.

User Accounts Overview

The User Accounts tab shows a list of all user accounts in this PRTG installation and various types of information about each user.





- **Object:** The name of the user account. Click the user account to open its [settings](#)  4212.
- **Type:** The user type, for example, [read-only user](#).
- **Email:** The primary email address of the user account.
- **Primary Group:** The primary group of the user account. Click the user group name to open its [settings](#)  4220.

- **Group Memberships:** All user groups that the user account belongs to.
- **Active/Paused:** The status of this user account. This can be [active](#) or [paused](#).


For more information, see also section [Working with Table Lists](#) ⁴²⁴⁶.







Add User Accounts

You have several options to add user accounts:

-  To add a new user to PRTG on premises, hover over  and select Add User from the menu. The options are almost the same as for editing users.
 -  To add a new user to PRTG Hosted Monitor, click Invite User. The options are almost the same as for editing users, but the initial account password is automatically generated. The new user can change it later. Click Send Invite to save your settings and to send the invitation per email to the defined primary email address.
 - To batch-add several users at once, hover over  and select Add Multiple Users from the menu. In the dialog box that appears, select a [user group](#) ⁴²¹⁹ from the dropdown menu and enter or paste a list of email addresses. Separate them by a space, comma, semicolon, or a new line. Click OK to confirm. For each email address, PRTG creates a new, local user account in the user group, using the email address as value for Login Name, Display Name, and Primary Email Address. A new password is automatically generated and sent to the email address.
 - Access rights to device tree objects, libraries, maps, reports, or the ticket system are defined in user groups. Make sure that the user is a member of the correct user group with the required group access rights.
 - To change a user's account settings, click the user's name in the [list of user accounts](#) ⁴²¹¹.
- i** You cannot delete [predefined](#) objects such as the [PRTG System Administrator](#) user account, the [PRTG Users Group](#), or the [PRTG Administrators](#) group.



User Account Settings

Setting	Description
Login Name	<p>Enter the login name for the user. The following characters are not allowed: ' / [ ] : ; | = , \ + * ? < ></p> <p> This option is not available in PRTG Hosted Monitor.</p>
Display Name	<p>Enter a name that the user recognizes. It is for display purposes only.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Primary Email Address	Enter the user's email address.

Setting	Description
	<p> Make sure that your email client can show HTML emails, otherwise you cannot read emails from PRTG.</p>
Password	<p>Define the user password or decide whether to change a password:</p> <ul style="list-style-type: none"> ▪ Do not change ▪ Specify new password <p> For security reasons, PRTG does not display the password.</p> <p>If you choose to specify a new password, enter the old password, then enter the new password twice.</p> <p> The new password must be at least 8 characters long. It must contain a number and a capital letter. Leading and trailing whitespaces are removed. The password of an administrator can only be changed by the same administrator.</p> <p> This option is not available in PRTG Hosted Monitor.</p>
Passhash	<p>Click Show passhash to display the passhash for the user. The passhash is necessary, for example, when using the PRTG API⁴³⁸⁸.</p> <p> This setting is for your information only. You cannot change it.</p> <p> This option is not available in PRTG Hosted Monitor.</p>

API Access

 These settings are only available in PRTG Hosted Monitor.

Setting	Description
API User Name	<p>Shows the user name of the user account. The user name is necessary when using the PRTG API.</p> <p> This setting is for your information only. You cannot change it.</p>
API Passhash	<p>Click Show passhash to display the passhash of the user. The passhash is necessary when using the PRTG API.</p> <p> This setting is for your information only. You cannot change it.</p>
Generate API Passhash	<p>Click Generate new passhash to reset the passhash of the user.</p>

Account Settings

Setting	Description
User Type	<p>This setting is only visible to administrators. Define the user type.</p> <ul style="list-style-type: none"> ▪ Read/write user: The user can view monitoring results, libraries, maps, reports, and also edit the according settings. In addition, they can add and delete objects, libraries, maps, and reports. The user can acknowledge alarms, edit notification templates, notification contacts, and schedules. ▪ Read-only user: The user can only view monitoring results, libraries, maps, reports, and the according settings. The user can acknowledge alarms and change their own password if allowed. This is a good choice for public or semi-public logins. <p>i Read-only users cannot be members of groups with administrative rights.</p> <p>i This setting is not available for the PRTG System Administrator user account.</p>
Acknowledge Alarms	<p>This setting is only visible if you enable Read-only user above. Acknowledging an alarm is an action that requires write access. However, you can explicitly allow the read-only user to acknowledge alarms^[223]. Choose between:</p> <ul style="list-style-type: none"> ▪ User can acknowledge alarms: Allow the read-only user to acknowledge alarms. ▪ User cannot acknowledge alarms (default): Do not allow the read-only user to acknowledge alarms.
Password Change	<p>This setting is only visible if you select Read-only user above. Define if the user can change their account password or not. If you allow the user to change their account password, this option is available in the My Account^[4123] settings of the user. Choose between:</p> <ul style="list-style-type: none"> ▪ User can change the account password ▪ User cannot change the account password (default)
Primary Group	<p>This setting is only visible to administrators. Select the primary group for the user.</p> <p>i Every user has to be a member of a primary group to make sure there is no user without group membership. Membership in other user groups is optional. For user experience, there is no difference between the primary group and other user groups.</p> <p>Select Create new user group for this user to create a user group for the new user. This option is only visible when you add a new user account. The default name of the new user group is the Display Name of the new user.</p>






Setting	Description
	<p>i You cannot change the primary group of Active Directory users. Users that you add via Active Directory integration can only have the respective Active Directory group as their primary group.</p>
Status	<p>This setting is only visible to administrators. Define the status of the user:</p> <ul style="list-style-type: none"> Active: The user can log in to the PRTG web interface. Paused: The user cannot log in to the PRTG web interface. Use this option to temporarily deny access for this user. <p>i This setting is not available for the PRTG System Administrator user account.</p>
Last Login	<p>Shows the time stamp of the user's last login.</p> <p>i This setting is for your information only. You cannot change it.</p>

Group Membership

Setting	Description
Member of	<p>Shows the user groups that the user is a member of.</p> <p>i This setting is for your information only. You cannot change it.</p>

Web Interface

Setting	Description
Automatic Refresh	<p>Define if you want PRTG to automatically refresh web pages in the PRTG web interface for the user:</p> <ul style="list-style-type: none"> Automatically refresh pages (recommended): PRTG automatically refreshes single page elements on the web pages in the PRTG web interface. Do not automatically refresh pages: PRTG does not automatically refresh web pages in the PRTG web interface.
Refresh Interval (Sec.)	<p>This setting is only visible if you select Automatically refresh pages (recommended) above. Enter the number of seconds that PRTG waits between two refreshes. We recommend that you use 30 seconds or more. The minimum value is 20 seconds.</p>

Setting	Description
Audible Alarms	<p> Shorter refresh intervals create more CPU load on the probe system. If you experience load issues while using the PRTG web interface (or maps ⁴⁰⁹⁵), set a longer refresh interval.</p> <p>Define whether PRTG plays an audible alarm on web pages in the PRTG web interface when there is a new alarm ²²⁸:</p> <ul style="list-style-type: none"> ▪ Do not play audible alarms: PRTG does not play sound files on any web pages. ▪ Play audible alarms on dashboard pages only: When there is a new alarm, PRTG plays a predefined sound on dashboard ²⁷⁸ pages only. PRTG plays the sound with every refresh of the dashboard page if there is at least one new alarm. ▪ Play audible alarms on all pages: When there is a new alarm, PRTG plays a predefined sound on all web pages. PRTG plays the sound with every page refresh if there is at least one new alarm. <p> PRTG only plays audible alarms if the New Alarms value in the global header area ¹⁸⁵ of the PRTG web interface is greater than 0 after a page refresh. PRTG does not consider the number of old alarms.</p> <p> For more information, see the Knowledge Base: Which audible notifications are available in PRTG? Can I change the default sound? and Why are audible alerts in public maps not working in Chrome?</p>
Home Page URL	<p>Define the user's default homepage in the PRTG web interface. This is the page that the user sees after logging in or when selecting Home ²⁷⁸ from the main menu. Enter a PRTG-internal web page.</p>
Time Zone	<p>Define the time zone for the user. Depending on the time zone you select here, PRTG shows the user's local time zone in all data tables and graph legends.</p> <p> PRTG receives the Coordinated Universal Time (UTC) from the system time set on the PRTG core server for this purpose.</p> <p> If you get a warning message about differing time zones, see the Knowledge Base: Why do I get a warning message when time zones differ?</p>
Date Format	<p>Select the date format for the user:</p> <ul style="list-style-type: none"> ▪ Use System Settings: Use the date format of the PRTG core server system. ▪ DD.MM.YYYY HH:MM:SS (24h) ▪ DD.MM.YYYY HH:MM:SS (A.M./P.M.) ▪ MM/DD/YYYY HH:MM:SS (24h) ▪ MM/DD/YYYY HH:MM:SS (A.M./P.M.)

Setting	Description
	<ul style="list-style-type: none"> ▪ YYYY-MM-DD HH:MM:SS (24h) ▪ YYYY-MM-DD HH:MM:SS (A.M./P.M.) <p>i This setting takes effect after the next login.</p>
Color Mode	<p>Select a color mode for the PRTG web interface:</p> <ul style="list-style-type: none"> ▪ Light ▪ Dark

Ticket System

Setting	Description
Email Notifications	<p>Define if the user receives emails from the ticket system:</p> <ul style="list-style-type: none"> ▪ Receive an email when a ticket changes: The user receives an email each time a ticket is assigned to the user or to the user group they are a member of, or if a ticket is changed. <ul style="list-style-type: none"> i If the user edits tickets that are assigned to them or the user group they are a member of, or if they assign a ticket to themselves or their user group, they do not get an email. ▪ Do not receive any emails from the ticket system: The user does not receive any emails from the ticket system.

i Save your settings. If you leave the page, all changes to the settings are lost.

Notification Contacts

On the [Notification Contacts](#) ⁴¹⁶³ tab, you can define contact methods for each user account. Contact methods can be email addresses, phone numbers, or push devices (iOS and Android devices with the corresponding [PRTG app](#) ⁴²⁷⁸).

Comments

On the Comments tab, you can enter free text for each object. You can use this function for documentation purposes or to leave information for other users.

History

On the History tab, all changes in the settings of an object are logged with a time stamp, the name of the user who made the change, and a message. The history log retains the last 100 entries.

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Which audible notifications are available in the PRTG web interface and in PRTG Desktop?

- <https://kb.paessler.com/en/topic/26303>























Why are audible alerts in public maps not working in Chrome?

- <https://kb.paessler.com/en/topic/83142>

Why do I get a warning message when time zones differ?

- <https://kb.paessler.com/en/topic/81306>

Setup

- [Account Settings](#)  4123
 - [My Account](#)  4123
 - [Notification Templates](#)  4131
 - [Notification Contacts](#)  4163
 - [Schedules](#)  4169
- [System Administration](#)  4175
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 - [Cluster Status](#)  4248
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- [Help and Support Center](#)  4264


- [Contact Support](#) 


Others

There are some settings that you must make in the [PRTG Administration Tool](#) . For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#) 
- [PRTG Administration Tool on Remote Probe Systems](#) 

8.12.2.6 User Groups


 This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

 If 15 minutes (900) seconds have passed since your last credential-based login and you open a system administration page from a different system administration page, PRTG asks you to enter your credentials again for security reasons. A dialog box appears. Enter your Login Name and Password and click OK to continue.



You define access rights for monitoring objects, libraries, maps, and reports at user group level. This means that group membership determines what a user can do and which monitoring objects, libraries, maps, or reports they can see. This does not apply to read-only users, who always have only read access, no matter what access rights the user group they belong to has. You can define group access rights for each object in the object's settings.

User Groups Overview

The User Groups tab shows a list of all user groups in this PRTG installation and various types of information about each user group.

- Object: The name of the user group. Click it to open its [settings](#) .
- Type: The user group type, for example, a [PRTG user group](#), an [Active Directory group](#), or an [single sign-on \(SSO\) group](#).
- Members: All users that are a member of this user group.
- Primary Group: All users that have this user group as their primary group.
- Active Directory Group: The Active Directory group that the user group is connected to.
- SSO Claim: The access claim for the SSO group that the user group is connected to.







Add User Groups

- To add a new user group to PRTG on premises or to <%P_Pod%>, hover over  and select Add User Group from the menu. The options are almost the same as for editing user groups.
- To change a user group's settings, select it from the list by clicking the group name.
- For each user group you create, PRTG automatically adds a new [group in the device tree](#)  with the name [\[group_name\] home](#).

- For each user group you create, PRTG automatically adds a new [email notification](#) to the [notification templates](#). It has the name `Email to all members of group [group_name]`. The new user group automatically has [read access](#) to the new notification template.
- By default, there are no [access rights](#) defined on objects for a newly created user group. Initially, users in this user group do not see any objects in the device tree except the automatically created `[group_name] home` group for which they have write access. This does not apply if the new user group is an administrator group. Edit the [settings](#) of objects in your device tree, libraries, maps, or reports, and set access rights for the new user group in the Access Rights section.
 - ⓘ The easiest way to set access rights is in the [root group settings](#) and to use the [inheritance of settings](#).
- ⓘ The multi-edit option is not available for the predefined user groups [PRTG Administrators](#) and [PRTG Users Group](#).
- ⓘ You cannot delete predefined objects such as the [PRTG System Administrator](#) user account, the [PRTG Users Group](#), or the [PRTG Administrators](#) group.
- ⓘ If you want to delete an Active Directory group from PRTG, you have to delete all users that are in the user group first. This is because the Active Directory users have this user group as their primary group, and user accounts have to have a primary group.

User Group Settings

Setting	Description
User Group Name	<p>Enter a name for the user group.</p> <p>ⓘ If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Administrative Rights	<p>Define if user group members have administrative rights:</p> <ul style="list-style-type: none"> ▪ Give user group members administrative rights: Give administrative rights to all user group members. <ul style="list-style-type: none"> ⓘ If you select this option, all user group members have full access to all device tree objects, libraries, maps, reports, and the ticket system. In addition, they can manage user accounts and user groups, and they can change the monitoring configuration of PRTG. ▪ Do not give user group members administrative rights: Access to device tree objects, libraries, maps, and reports for user group members are defined in an object's settings.
Homepage URL	<p>Define the default homepage for users created within this user group. This is the page that the user sees after logging in or when selecting Home from the main menu. Enter a PRTG-internal web page.</p> <p>ⓘ This applies to new users that were either added via Active Directory Integration or using the Add Multiple Users option.</p>

Setting	Description
Active Directory or Single Sign-On Integration	<p>Define whether to connect this user group to external users:</p> <ul style="list-style-type: none"> Do not use Active Directory or single sign-on integration: Do not connect this user group to a user group in your Active Directory or to a single sign-on integration. Use local user accounts instead. Use Active Directory integration: Connect this user group to a user group in your Active Directory. <ul style="list-style-type: none"> For detailed information, see Active Directory Integration⁴³⁸⁵. Use single sign-on integration: Connect this user group to a single sign-on integration. <ul style="list-style-type: none"> For more information, see the Knowledge Base: How to integrate Azure Active Directory into PRTG? <p> You cannot change credentials for users that are members of an Active Directory group.</p> <p> This option is not available in PRTG Hosted Monitor.</p>
Active Directory Group	<p>This setting is only visible if you select Use Active Directory integration above. Select the user group whose members can log in to PRTG using their Active Directory domain credentials from the dropdown menu. The according user accounts have the group access rights¹⁵⁵¹ of the user group you just created.</p> <p> You need to configure a valid Active Directory domain in the Core & Probes⁴²⁰² settings for user groups to appear in the dropdown menu.</p> <p> For detailed information, see Active Directory Integration⁴³⁸⁵.</p> <p>If your Active Directory contains more than 1,000 entries in total, PRTG displays an input field instead of a dropdown menu. This is for performance reasons. In the input field, you can only enter the name of the user group in your Active Directory. PRTG then automatically adds the domain name prefix.</p> <p> PRTG caches the list of the user groups in your Active Directory for one hour. You can update this list earlier by manually clearing the cache via the Administrative Tools⁴²²⁵ by clicking Go! in the Clear Caches section.</p> <p> This option is not available in PRTG Hosted Monitor.</p>
SSO Group Access Claim	<p>This setting is only visible if you select Use single sign-on integration above. Enter the access claim for the SSO group.</p>
User Type	<p>This setting is only visible if you select Use Active Directory integration above. Define the default user access rights for all new users in this user group:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ Read/write user: The user can view monitoring results, libraries, maps, reports, and also edit the according settings. In addition, they can add and delete objects, libraries, maps, and reports. The user can acknowledge alarms, edit notification templates, notification contacts, and schedules. ▪ Read-only user: The user can only view monitoring results, libraries, maps, reports, and the according settings. The user can acknowledge alarms and change their own password if allowed. This is a good choice for public or semi-public logins. <p> ⓘ Read-only users cannot be members of groups with administrative rights.</p> <p> ⓘ If a user logs in to PRTG for the first time using Active Directory credentials, PRTG automatically creates a new, local user account for this user with the user type you define here.</p>
<p>Acknowledge Alarms</p>	<p>This setting is only visible if you enable Read-only user above. Acknowledging an alarm is an action that requires write access. However, you can explicitly allow the read-only user to acknowledge alarms^[229]. Choose between:</p> <ul style="list-style-type: none"> ▪ User can acknowledge alarms: Allow the read-only user to acknowledge alarms. ▪ User cannot acknowledge alarms (default): Do not allow the read-only user to acknowledge alarms.
<p>Allowed Sensors</p>	<p>Define if user group members can create all sensors or only specific sensors:</p> <ul style="list-style-type: none"> ▪ Users can create all sensors: No restrictions for group members apply. ▪ Users can only create certain sensors: Select the allowed sensors from the list of available sensors.
<p>Users Can Create These Sensors</p>	<p>This setting is only visible if you select Users can only create certain sensors above. A list of all available sensors is shown. Select the sensors that user group members can create by adding check marks in front of the respective sensor name.</p> <p> ⓘ You can also select all items or cancel the selection by using the check box in the table header.</p> <p> ⓘ PRTG displays sensors that are in use in bold print.</p> <p> ⓘ This setting does not apply when a user group member runs an auto-discovery^[236]. The auto-discovery adds all sensors that are defined in the used device templates. This setting does also not apply when a user group member adds recommended sensors^[221].</p>
<p>Ticket System Access</p>	<p>Define if user group members can use the ticket system^[240].</p>

Setting	Description
	<ul style="list-style-type: none"> Users can use the ticket system: Users in this user group can read, create, assign, and modify tickets. <ul style="list-style-type: none"> i Group members that are read-only users never have access to the ticket system. Users cannot use the ticket system: The Tickets ²⁸⁸ menu item in the main menu bar is not visible to users in this user group.

Group Members

Setting	Description
Members	This setting is only visible if you select Do not use Active Directory or single sign-on integration above. Define which local user accounts are members of this user group. To add a user account from the list, enable the check mark in front of the user name. The available user accounts depend on your setup.

Primary Group Users

Setting	Description
User List	Shows a list of all user accounts that have this user group as their primary group. This is only shown for your information. You can change the primary group of a user account in the user account's settings ⁴²¹¹ .

i Save your settings. If you leave the page, all changes to the settings are lost.

Comments

On the Comments tab, you can enter free text for each object. You can use this function for documentation purposes or to leave information for other users.

History

On the History tab, all changes in the settings of an object are logged with a time stamp, the name of the user who made the change, and a message. The history log retains the last 100 entries.

More

■ KNOWLEDGE BASE
























What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

How to integrate Azure Active Directory into PRTG?

- <https://kb.paessler.com/en/topic/88527>

Setup

- [Account Settings](#)  4123
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- [System Administration](#)  4175
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 - [Cluster Status](#)  4248
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- [Contact Support](#)  4266

Others

There are some settings that you must make in the [PRTG Administration Tool](#)  4346. For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#)  4347
- [PRTG Administration Tool on Remote Probe Systems](#)  4371

8.12.2.7 Administrative Tools

With the administrative tools, you can start system-specific processes for debugging purposes. Use them if the Paessler support team advises you to do so. You can start the respective processes by clicking Go!.

☁ If 15 minutes (900) seconds have passed since your last credential-based login and you open a system administration page from a different system administration page, PRTG asks you to enter your credentials again for security reasons. A dialog box appears. Enter your Login Name and Password and click OK to continue.






Administrative Tools For The Core Server

Administrative Tools For The Core Server

<p>Create Configuration Snapshot</p> <p>Saves the current configuration as a .zip file in the Configuration Auto-Backups subfolder in the data directory of your PRTG installation.</p> <p style="text-align: right;">Go!</p>	<p>Write Core Status File</p> <p>Creates a debug file on the core system.</p> <p style="text-align: right;">Go!</p>	<p>Clear Caches</p> <p>Clears the web server's internal caches for Geo Maps, the Active Directory integration, and the Active Directory group list.</p> <p style="text-align: right;">Go!</p>
<p>Load Lookups and File Lists</p> <p>Reloads the lookup files from the lookups\custom folder of the PRTG program directory, and other file lists that are displayed in the web interface, for example, SNMP libraries, device icons, and report templates.</p> <p style="text-align: right;">Go!</p>	<p>Recalculate PRTG Graph Data Cache</p> <p>The recalculation requires a restart of the PRTG core server service.</p> <p style="text-align: right;">Go!</p>	<p>Restart PRTG Core Server Service</p> <p>Restarts the PRTG core server service.</p> <p style="text-align: right;">Go!</p>
<p>Reload Logging Configuration</p> <p>Apply changes to the logging configuration to all PRTG modules.</p> <p style="text-align: right;">Go!</p>		

PRTG Core Server Administrative Tools

Setting	Description
<p>Create Configuration Snapshot</p>	<p>Create a snapshot of your PRTG configuration. This action can take up to 100 seconds. Once finished, you find a .zip file that contains a *.dat file in the \Configuration Auto-Backups subfolder of the PRTG data directory⁴⁵²⁶. The .zip file follows the name pattern PRTG Configuration (Snapshot YYYY-MM-DD HH-MM-SS).zip.</p> <p>i If you run PRTG in a cluster, this action is executed on the cluster node you are logged in to.</p> <p>☁ This option is not available in PRTG Hosted Monitor.</p>

Setting	Description
Write Core Status File	<p>Create status files of your PRTG core server. You find the two text files in the \Logs\debug subfolder of the PRTG data directory. The files are named Core State (Global Debug Data).txt and Core State (Memory Debug Data).txt. New files are created each time you click Go!.</p> <p> If you run PRTG in a cluster, this action is executed on the cluster node you are logged in to.</p> <p> This option is not available in PRTG Hosted Monitor.</p>
Clear Caches	<p>PRTG caches tiles for Geo Maps, user data for Active Directory Integration, and the Active Directory Group list. Click Go! to delete the cache if you encounter broken Geo Maps tiles, if you changed a user's password in the Active Directory, or if you added groups in the Active Directory.</p> <p> This option is not available in PRTG Hosted Monitor.</p>
Load Lookups and File Lists	<p>(Re)load the lookup files from the \lookups\custom subfolder of the PRTG program directory. In this subfolder, your customized lookup files are stored. If you have created a new lookup file or changed something in a lookup file, it might be necessary to load or to reload these files.</p> <p>With this option, you can also manually reload file lists in the PRTG web interface. If you have added new device icons, device templates, report templates, .oidlib files for the SNMP Library sensor, or language files to the PRTG program directory on the PRTG core server system while the server was running, reloading the file lists might be necessary to display new files in the PRTG web interface.</p> <p> Usually you do not have to reload file lists manually. A list is automatically reloaded when opening the according settings page with a latency of 10 seconds. If you save new device templates via the PRTG web interface, the template list is refreshed immediately.</p> <p> This option is not available in PRTG Hosted Monitor.</p>
Recalculate PRTG Graph Data Cache	<p>PRTG constantly writes monitoring data to disk and keeps the graphs for your graph tabs in memory. If PRTG is ended unexpectedly, the graph cache might become corrupted. In this case, graphs might be empty or show wrong data.</p> <p>If you experience graph display problems, a graph recalculation fixes the problem. Click Go! to delete the data cache file and recalculate it automatically.</p>

Setting	Description
	<p>i If you apply recalculation, PRTG needs to restart the PRTG core server. Because of this, all users of the PRTG web interface, of PRTG Desktop^[4275], or of the PRTG apps for iOS or Android^[4278] are disconnected. After clicking Go!, a dialog window appears that asks you to confirm the required restart. Click OK to trigger the restart.</p> <p>i Directly after this action, your graphs are empty. They are refilled successively while recalculation in the background progresses. Until recalculation is finished, performance of the PRTG web interface might be affected because of high disk input/output (I/O) activity.</p>
Restart PRTG core server service	<p>Restart the PRTG core server service manually. Click Go! for this purpose.</p> <p>i If you restart the PRTG core server service, all users of the PRTG web interface, of PRTG Desktop, or of the PRTG apps for iOS or Android are disconnected. Clicking Go! immediately restarts the PRTG core server service.</p> <p>i If you want to schedule an automatic restart of Windows services for both PRTG core server service and PRTG probe service, you can do this in the corresponding probe settings^[409].</p> <p>☁ This option is not available in PRTG Hosted Monitor.</p>
Reload Logging Configuration	<p>For debugging reasons, it might be necessary to change the log levels of your PRTG core server. The Paessler support team takes you through the necessary steps that are required to change your logging configuration. The log level changes vary according to your PRTG instance, its setup, and the solution of your issue.</p> <p>To apply the changes, load them by clicking Go!.</p>

Administrative Tools For Probes


Administrative Tools For Probes

<p>Write Probe Status Files</p> <p>Creates a set of debug files on all probe systems.</p> <p style="text-align: center;"><input style="border: 1px solid #ccc; padding: 5px 15px; color: #007bff; text-decoration: none; cursor: pointer; margin-top: 10px;" type="button" value="Go!"/></p>	<p>Restart All Probes</p> <p>Restarts all probe services. For disconnected probes, please use the PRTG Administration Tool on the respective probe system to start the probe service.</p> <p style="text-align: center;"><input style="border: 1px solid #ccc; padding: 5px 15px; color: #007bff; text-decoration: none; cursor: pointer; margin-top: 10px;" type="button" value="Go!"/></p>
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Probe #1 "Local Probe"




















connected from: 127.0.0.1:49899
 Last Data: 12.06.2019 12:51:13 (1 sec ago) (W. Europe Standard Time)
 .NET Framework Support: Installed: 4.7.2 or later

Probe Administrative Tools

Setting	Description
Write Probe State Files	<p>Create status files of your probes. PRTG writes status files for the local probe running on the PRTG core server (in a cluster, on the cluster node you are logged in to) as well as for all configured remote probes (if any).</p> <p>On the respective systems, you find six text files in the \Logs\debug subfolder of the PRTG data directory. The files are named Probe State (Global Debug Data).txt, Probe State (Memory Debug Data).txt, Probe State (Scheduler Debug Data).txt, Probe State (Syslog).txt, Probe State (Trap).txt, and Probe State (xFlow Debug Data).txt. New files are created each time you click Go!.</p>
Restart All Probes	<p>Restart all probes as well as the local probe Windows service. If you have remote probes ⁴⁵⁰¹, the probe Windows services on the remote probe systems are restarted as well. To restart single probes only, see below.</p> <p>i You cannot restart disconnected probes here. Use the PRTG Administration Tool ⁴³⁴⁶ on the probe system to start a disconnected probe.</p> <p>i If you run PRTG in a cluster, this action is executed on the cluster node you are logged in to.</p> <p>In this case, remote probes are only restarted if you are logged in to the primary master node. The cluster probe Windows service of failover nodes is not restarted if you execute this action on the primary master node. If you want to restart the cluster probe Windows service of a failover node, log in to the PRTG web interface of this failover node and click Go! there.</p>
Probe [#Number] "[Name]"	<p>This section shows information about the connection status. If the probe is connected, the field shows the source IP address and port number used by the probe. For the local probe, the IP address is always 127.0.0.1. You also see information about the date when the last data packet was received from the probe.</p> <p>If you want to restart a single probe, click the corresponding Restart Probe button. Entries for every single probe follow.</p> <p>i You cannot restart disconnected probes here. Use the PRTG Administration Tool ⁴³⁴⁶ on the probe system to start a disconnected probe.</p> <p> This option is not available on the hosted probe of a PRTG Hosted Monitor instance.</p>

Setup

- [Account Settings](#) ⁴¹²³
- [My Account](#) ⁴¹²³
- [Notification Templates](#) ⁴¹³¹
- [Notification Contacts](#) ⁴¹⁶³

- [Schedules](#) 
- [System Administration](#) 
 - [User Interface](#) 
 - [Monitoring](#) 
 - [Notification Delivery](#) 
 - [Core & Probes](#) 
 - [User Accounts](#) 
 - [User Groups](#) 
 - [Administrative Tools](#) 
 - [Cluster](#) 
 - [Single Sign-On](#) 
- [PRTG Status](#) 
 - [System Status](#) 
 - [Cluster Status](#) 
- [License Information](#) 
- [Auto-Update](#) 
- [Optional Downloads](#) 
- [Help and Support Center](#) 
- [Contact Support](#) 

Others


There are some settings that you must make in the [PRTG Administration Tool](#) . For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#) 
- [PRTG Administration Tool on Remote Probe Systems](#) 

8.12.2.8 Cluster

During the [failover cluster configuration](#) , the cluster settings were predefined. You can change other cluster-related settings here. See the [cluster status](#)  to see if all cluster nodes are properly connected.

 This feature is not available in PRTG Hosted Monitor.


 If 15 minutes (900) seconds have passed since your last credential-based login and you open a system administration page from a different system administration page, PRTG asks you to enter your credentials again for security reasons. A dialog box appears. Enter your Login Name and Password and click OK to continue.

Cluster Node Setup

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

In the table of the cluster settings, the information for each cluster node is written in one line.

Setting	Description
Node Name	<p>Enter the name of the cluster node (for display purposes).</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}), for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>
Node ID	<p>The ID is unique for every cluster node.</p> <p>i We recommend that you use the default value.</p>
Node State	<p>Set the state for each failover node:</p> <ul style="list-style-type: none"> ▪ Active: Set the failover node to active. ▪ Inactive: Set the failover node to inactive. It is then disabled in the cluster configuration. It is then not an active part of the cluster and does not appear in the cluster status anymore. <p>i This setting is not available for the master node of a cluster. The master node is always set to Active.</p>
IP Addresses/DNS Names Used for Connections Between Nodes	<p>Define the IP addresses or Domain Name System (DNS) names that are used for the connections between the cluster nodes. You can enter different values for every node–node connection.</p> <p>For example, in the field #2 => #1, enter the address under which the master node is reachable from the second cluster node. Usually, this is the IP address or DNS name of the master node. Do this for all available cluster node connections, for example, if you run three cluster nodes, enter the address under which the second cluster node is reachable from the third cluster node into the field #3 => #2.</p> <p>■ See also section Failover Cluster Step by Step, Step 4⁴⁵²¹ and following.</p> <p>i If you use remote probes⁴⁵⁰³ outside your local network or outside your network address translation (NAT), ensure that the IP addresses or DNS names you enter here are valid for both the cluster nodes to reach each other and for remote probes to reach all cluster nodes individually. These addresses must not be private and have to be reachable from the outside, otherwise your remote probes are not able to connect.</p>

 Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

 For how to set a cluster node into Maintenance Mode, see section [Cluster Status](#) .

 The entire setup process for a cluster requires several different steps. For more information and step-by-step guidance, see section [Failover Cluster Configuration](#) .
























More

KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Setup

- [Account Settings](#) 
 - [My Account](#) 
 - [Notification Templates](#) 
 - [Notification Contacts](#) 
 - [Schedules](#) 
- [System Administration](#) 
 - [User Interface](#) 
 - [Monitoring](#) 
 - [Notification Delivery](#) 
 - [Core & Probes](#) 
 - [User Accounts](#) 
 - [User Groups](#) 
 - [Administrative Tools](#) 
 - [Cluster](#) 
 - [Single Sign-On](#) 
- [PRTG Status](#) 
 - [System Status](#) 
 - [Cluster Status](#) 
- [License Information](#) 
- [Auto-Update](#) 
- [Optional Downloads](#) 
- [Help and Support Center](#) 
- [Contact Support](#) 

Others

There are some settings that you must make in the [PRTG Administration Tool](#)⁴³⁴⁶. For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#)⁴³⁴⁷
- [PRTG Administration Tool on Remote Probe Systems](#)⁴³⁷¹

8.12.2.9 Single Sign-On

i This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

☁ If 15 minutes (900) seconds have passed since your last credential-based login and you open a system administration page from a different system administration page, PRTG asks you to enter your credentials again for security reasons. A dialog box appears. Enter your Login Name and Password and click OK to continue.

With the single sign-on (SSO) settings, you can select an SSO provider and configure other related settings.

i You must first configure Azure Active Directory accordingly before you can integrate it into PRTG for SSO. For example, you must register PRTG as an application. For more information, see the Knowledge Base: [How to integrate Azure Active Directory into PRTG?](#)

Single Sign-On Settings

Setting	Description
SSO Login	<p>Define if you want to enable login via SSO:</p> <ul style="list-style-type: none"> ▪ Disable (default) ▪ Enable
Provider	<p>This setting is only visible if you select Enable above. Select an SSO provider from the dropdown list:</p> <ul style="list-style-type: none"> ▪ Azure Active Directory: Use Azure Active Directory as the SSO provider.
Configuration Endpoint	<p>This setting is only visible if you select Enable above. Enter the configuration endpoint URL in the following format:</p> <pre>https://login.microsoftonline.com/<tenant-ID>/v2.0/.well-known/openid-configuration</pre> <p>i Click Load Configuration to automatically fill in the values for Authorization Endpoint, Token Endpoint, JSON Web Key Set (JWKS) URI, and Issuer. If this does not work, then manually enter the values.</p>

Setting	Description
Authorization Endpoint	<p>This setting is only visible if you select Enable above. Enter the entire endpoint URL for authorization purposes, not only the server part. For example:</p> <pre>https://login.microsoftonline.com/<tenant-ID>/oauth2/v2.0/authorize</pre> <p>i Make sure to replace <tenant-ID> with the directory (tenant) ID from Azure Active Directory.</p>
Token Endpoint	<p>This setting is only visible if you select Enable above. Enter the entire token endpoint URL, not only the server part. For example:</p> <pre>https://login.microsoftonline.com/<tenant-ID>/oauth2/v2.0/token</pre> <p>i Make sure to replace <tenant-ID> with the directory (tenant) ID from Azure Active Directory.</p>
JSON Web Key Set (JWKS) URI	<p>This setting is only visible if you select Enable above. Enter the URI of the JSON Web Key Set (JWKS), not only the server part. For example:</p> <pre>https://login.microsoftonline.com/<tenant-ID>/discovery/v2.0/keys</pre> <p>i Make sure to replace <tenant-ID> with the directory (tenant) ID from Azure Active Directory.</p>
Issuer	<p>This setting is only visible if you select Enable above. Enter the SSO issuer. For example:</p> <pre>https://login.microsoftonline.com/<tenant-ID>/v2.0</pre> <p>i Make sure to replace <tenant-ID> with the directory (tenant) ID from Azure Active Directory.</p>
Scope	<p>This setting is only visible if you select Enable above. Enter the scope for SSO. For example:</p> <pre>openid profile offline_access email api://<client-ID>/AnAPIName</pre> <p>i Make sure to replace <client-ID> with the application (client) ID from Azure Active Directory.</p>
Application (Client) ID	<p>This setting is only visible if you select Enable above. Enter the application (client) ID from Azure Active Directory.</p>
Client Secret	<p>This setting is only visible if you select Enable above. Enter the client secret to verify the integrity of the SSO token.</p>
Endpoint Handling	<p>This setting is only visible if you select Enable above. Define whether to select the callback from a list of callbacks or to manually enter a callback:</p>

Setting	Description
	<ul style="list-style-type: none"> ▪ Select from a list of endpoints (default): Select an endpoint from a list of available endpoints. ▪ Manually enter a URL: Manually enter an endpoint URL below. <ul style="list-style-type: none"> ❗ You need to enter a manual callback if you access PRTG via a different DNS name. For example, if you access PRTG via myPRTG.example.com but the actual DNS name of the PRTG core server is myPRTG.internal.example.com, you need to enter a manual callback.
Available Callback URLs	<p>This setting is only visible if you select Enable and select Select from a list of endpoints (default) above. This list shows the available callbacks of this PRTG instance. Select the callbacks that your users use to connect to PRTG.</p> <p>❗ If you define an HTTPS endpoint in this field, you need to configure the HTTPS endpoint as a valid redirection URI in your SSO provider's settings.</p>
External Callback URL	<p>This setting is only visible if you select Enable and select Manually enter a URL above. If you access PRTG via a different DNS name, define the HTTPS endpoint.</p> <p>This is necessary if the DNS name that you configured under Setup | System Administration | User Interface does not appear in the Available Callback URLs list. For example, if you access PRTG via myPRTG.example.com but the actual DNS name of the PRTG core server is myPRTG.internal.example.com, then enter myPRTG.example.com.</p> <p>❗ If you define an HTTPS endpoint in this field, you need to configure the HTTPS endpoint as a valid redirection URI in your SSO provider's settings.</p>
Available Callback URLs (for reference)	<p>This setting is only visible if you select Enable and select Manually enter a URL above. This list shows the available callbacks URLs of this PRTG instance for reference purposes.</p>
Test Single Sign-On Authorization Endpoint	<p>Click Test Single Sign-On Authorization Endpoint to call the authorization endpoint to check if starting the single sign-on process will succeed.</p> <p>❗ In case of errors, check the answer from the endpoint.</p>

❗ Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

Notes and Restrictions

- SSO is not available for the [Freeware Edition](#)²¹.
- SSO users do not have access to the [PRTG API](#)⁴³⁸⁹. Because of this, SSO users can also not create [PDF reports](#)⁴⁰⁸⁸.

- When an SSO user [logs in to the PRTG web interface](#)^[164], PRTG automatically creates a corresponding local account on the PRTG core server.
- Changing the Login Name in PRTG for SSO users is not supported
- By default, no access rights for monitoring objects, libraries, maps, or reports are set for the new user group in PRTG. This is why, initially, users in this user group do not see monitoring objects, libraries, maps, or reports. This does not apply if the new user group has administrative rights. Edit the monitoring [object's settings](#)^[226] and the settings of libraries, maps, and reports, and set access rights for your newly created user group in the respective Access Rights section.
 - ❶ The easiest way is to set these access rights in the [root group settings](#)^[366] and use the [inheritance of settings](#)^[142].
- A local user account for an SSO user is only created if this SSO user has successfully logged in to PRTG. If you want to send [email notifications](#)^[4138] to an SSO group in PRTG, using the option Send to User Group in the notification settings, a member of this SSO group has to log in to PRTG at least once to receive email notifications. To avoid this, enter the email address of the SSO group in the Send to Email Address field in the notification settings and select None for the Send to User Group option.
- If you want to delete an SSO group from PRTG, you have to delete all users that are in this user group first. This is because SSO users always have this user group set as their primary group, and user accounts cannot be without a primary group.
- If a license is not valid, is temporarily unavailable, or is being updated, SSO does not work during this time.
- SSO users cannot log on to a failover node in a cluster.

More

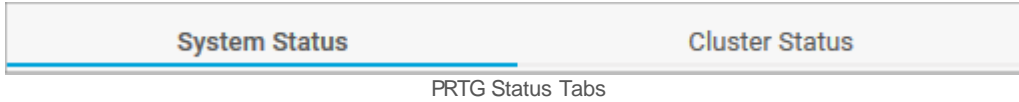
KNOWLEDGE BASE

How to integrate Azure Active Directory into PRTG?

- <https://kb.paessler.com/en/topic/88527>

8.12.3 PRTG Status

To view the status of your PRTG installation, select Setup | PRTG Status from the [main menu bar](#)⁴²⁸⁹. Select the various tabs to change the different settings.



You can view the following aspects of the PRTG status:

- [System Status](#)⁴²³⁶
- [Cluster Status](#)⁴²⁴⁸

8.12.3.1 System Status

System Status










Click the System Status tab to view relevant system information. You might need this data for debugging or when you contact the Paessler support team. They ask you in some cases to provide system status information to analyze your issues with PRTG. Furthermore, this page shows interesting usage statistics. Use the links at the top of the page for quick access to status information.

In this section:

- [Software Version and Server Information](#)⁴²³⁷
- [License Information](#)⁴²³⁸
- [System Startup Log](#)⁴²³⁹
- [System Warnings](#)⁴²³⁹
- [Cluster Status](#)⁴²³⁹
- [Local Status](#)⁴²³⁹
- [Cluster Connections](#)⁴²⁴⁰
- [Core System Memory](#)⁴²⁴⁰
- [Thread Information](#)⁴²⁴⁰
- [Activity History](#)⁴²⁴⁰
- [Auto-Discovery Tasks](#)⁴²⁴¹
- [Background Tasks](#)⁴²⁴¹
- [Database Objects](#)⁴²⁴²
- [Sensors by Performance Impact](#)⁴²⁴³
- [Sensors by Interval](#)⁴²⁴³
- [Probes](#)⁴²⁴³
- [System Settings](#)⁴²⁴⁴
- [Web Server Activity](#)⁴²⁴⁵

▪ [Synchronization](#) 

Software Version and Server Information

Category	Description
PRTG Version	Shows the exact version of the build your PRTG installation is running on.
Auto-Update Status	Shows the latest auto-update message available from the auto-update  . For example, the message indicates any updates ready to be installed.  This information is not displayed in PRTG Hosted Monitor.
Operating System	Shows the exact Windows version build and service packs, the number and kind of CPUs, and the computer name of the PRTG core server system.  If you run PRTG in a cluster, this shows information for the system of the cluster node you are logged in to.  When running PRTG on virtual systems, some of the mentioned values might not be available.  This information is not displayed in PRTG Hosted Monitor.
Server Time	Shows the date and time of the PRTG core server system.  If you run PRTG in a cluster, this shows information for the system of the cluster node you are logged in to.
Server CPU Load	Shows the CPU load of the PRTG core server system.  If you run PRTG in a cluster, this shows information for the system of the cluster node you are logged in to.
User Name	Shows the user name  of the user account that you are logged in with.
Active User Sessions	Shows the usernames of all user accounts that are logged in.  When a user account logs out, it takes up to 1 minute until the user name disappears.
Browser	Shows the name and user agent string of the browser you are viewing this page with.

License Information

Setting	Description
License Status	<p>Shows the activation status of this installation of PRTG. Usually, PRTG completes the activation automatically during installation or when you change your license information. Only if PRTG cannot connect directly to the internet, is a manual activation necessary.</p> <p>■ For more information, see section Activate the Product^[110].</p>
License Name	<p>Shows the owner of the license^[107] that you use for this installation of PRTG, for example ExampleOrganization. License Name, license key, and system ID together build your license information.</p> <p>ⓘ You can find the label License Owner in some documents from the Paessler shop. License Owner is the same as License Name, for which you might be asked while installing PRTG or when you change your license key^[107].</p>
License Key	<p>Shows the license^[107] key that you use for this installation of PRTG. License Name, license key, and system ID together build your license information.</p>
System ID	<p>The system ID is a fixed value that is automatically assigned to your PRTG installation.</p>
Licensed Edition	<p>Shows the PRTG edition that you use for this installation of PRTG. This determines how many sensors you can use in your monitoring (see below).</p>
Last Update	<p>Shows the date of the last update for this PRTG installation. We recommend that you use the auto-update^[4257].</p>
Maintenance until	<p>Shows the expiration date and the days remaining for your active maintenance contract. You can buy maintenance for each PRTG license. With an active maintenance contract, you can download any available updates and use our premium email support.</p> <p>ⓘ This information is not visible in Paessler PRTG Enterprise Monitor.</p>
Number of Sensors	<p>Shows the number of sensors you can use in your monitoring with your edition of PRTG. If you reach the limit, PRTG automatically sets each new sensor that you add to a Paused status^[197]. To upgrade your license right now, click Need more sensors? Click here to upgrade! to visit our web shop.</p>

Setting	Description
	<p>Editions that allow an unlimited number of sensors do not restrict the number of possible sensors by license, so you can create sensors until the performance limit²⁸ is reached. This means that you can use about 10,000 sensors per PRTG core server (depending on your system's performance, sensors, and scanning intervals).</p> <p>■ For more information, see section System Requirements²³.</p>

System Startup Log

Shows the log information created during the last startup of the PRTG core server.

i If you run PRTG in a cluster, this shows information for the system of the cluster node you are logged in to.

System Warnings

If there are any warnings, PRTG shows them here. Usually, you see [None](#).

Cluster Status

This setting is only visible if you have a [cluster](#)¹³⁵. This section lists all of your cluster nodes.

Category	Description
Node [Number]	<p>Shows the name and type of the cluster node (primary node or secondary node) and its status (current master node or failover node). Additionally, all connections from this cluster node to the other cluster nodes are shown.</p> <p>■ For more information, see section Cluster Status⁴²⁴⁸.</p>

Local Status

This setting is only visible if you have a [cluster](#)¹³⁵. This section lists information about the cluster node that you are logged in to.

Category	Description
Server State	Shows the name of the cluster node and its status (current master node or failover node).

Category	Description
Cluster Messages	Shows internal summary information about the cluster node and the communication between the cluster nodes. You might be asked about this by the Paessler support team.

Cluster Connections

This setting is only visible if you have a [cluster](#)¹³⁵. This section lists information about the connections between the cluster nodes.

Category	Description
State of Local Node	Shows the treversion and size of the server volume, both types of internal system information.
State of Cluster Members	For each cluster node, the name and IP address is shown, as well as a state cyclic redundancy check (CRC) code, the time stamp of the last "keep alive" signal sent, the size of the buffer, and the remote IP address.
Message State of Cluster Members	For each cluster node, the name and unique identifier is shown, as well as the connection state, and statistics about the cluster message system that is used for the communication between the cluster nodes.

Core System Memory

Shows machine-oriented information regarding the memory usage of the PRTG core server system.

i If you run PRTG in a cluster, this shows information for the system of the cluster node you are logged in to.

■ For more information, see the Knowledge Base: [What do the PRTG core memory parameters mean?](#)

Thread Information

Shows machine-oriented information regarding the threads running on the PRTG core server system.

i If you run PRTG in a cluster, this shows information for the system of the cluster node you are logged in to.

Activity History

The Activity History shows how busy PRTG was for you in the past. The graphs indicate the number of activities in the last 365 days. Below the graphs, you see statistics about the past day.

Category	Description
Sensor Scans	Shows how often all sensors refreshed their data in the past.
Sensor Status Changes	Shows how often the sensor states changed in the past.
Notifications Sent	Shows how many notifications PRTG sent out in the past.
Reports Generated	Shows how many reports PRTG created in the past.
Page Views	Shows how often pages in the PRTG web interface were opened in the past.
Sensors	Shows how many sensors existed in the past.
Devices	Shows how many devices existed in the past.
Reports	Shows how many reports existed in the past.
Maps	Shows how many maps existed in the past.

Auto-Discovery Tasks

Category	Description
Running	Shows the number of auto-discovery tasks that are running. A high number of auto-discovery tasks can negatively influence system performance.

Background Tasks

Category	Description
Historic Data	Shows if PRTG is recalculating the historic data cache in the background. If so, you see the tasks to do until done. Usually, this calculation is done after every PRTG core server restart.

Category	Description
Toplist Buffer	When using xFlow (NetFlow, iFlow, sFlow, IPFIX) or Packet Sniffer sensors, PRTG stores Toplist data. The data stream received is buffered and written to the data directory of the PRTG core server system. Depending on the number and size of the data stream as well as the hard disk and system performance of the PRTG core server system, the buffer size can rise. When reaching a buffer size of 500, Toplist data is dropped, which can lead to incorrect Toplist values for the sensors.
Similar Sensors Detection	Shows the status and the selected setting for the analysis depth of the similar sensors analysis.
Recommended Sensors Detection	Shows the status of the detection engine and the tasks of the recommended sensors detection .

Database Objects

Shows statistic information about your monitoring configuration. This information might be necessary when contacting the Paessler support team.

Category	Description
Probes	Shows the total number of probes in your installation.
Groups	Shows the total number of groups in your installation.
Devices	Shows the total number of devices in your installation.
Sensors	Shows the total number of sensors in your installation.
Channels	Shows the total number of channels in your installation.
User Groups	Shows the total number of user groups in your installation.
Users	Shows the total number of users in your installation.
Notifications	Shows the total number of notifications in your installation.
Schedules	Shows the total number of schedules in your installation.
Maps	Shows the total number of created maps in your installation.
Libraries	Shows the total number of created libraries in your installation.

Category	Description
Reports	Shows the total number of reports in your installation.
Bitfield/Boolean/Integer/R ange Lookups	Shows the total number of used lookups by lookup type ⁴⁴⁹³ .
Requests/Second	Shows a value calculated from the total number of sensors and the average scanning interval configured. This number indicates how many monitoring requests per second are sent from the probes to the devices in your network. There are no general guidelines on what a "good" value is here. This depends on the sensors used as well as on your system's performance.

Sensors by Performance Impact

Shows all sensors used in your configuration in order of performance impact (from very low to very high). If the CPU load of the probe system is very high, you can see which sensors might be causing this issue. Consider the recommended number of sensors in the respective [sections](#) ⁴⁷⁶ for sensors with high and very high performance impact.

- ❗ In the list, internal short names are used for sensors instead of the official designations.
- ❗ You can also see the performance impact of a sensor on the sensor's Overview tab or in the [Add Sensor](#) ³⁶² dialog.
- For an overview list of sensors sorted by performance impact, see section [List of Sensors by Performance Impact](#) ⁴⁶⁷².

Sensors by Interval

Shows all sensors used in your configuration in order of scanning interval. Choose reasonable scanning intervals for sensors that can affect the system performance. See the respective [sections](#) ⁴⁷⁶ for sensors for more information.


- ❗ In the list, internal short names are used for sensors instead of the official designations.

Probes





This section lists all probes configured in your monitoring setup. If there are no remote probes configured, only the local probe or the hosted probe appears in the list, which always runs on the PRTG core server.

- ❗ If you run PRTG in a cluster, this shows information for the system of the cluster node you are logged in to.

Remote probes (if any) are only shown when you are logged in to the primary master node. When logged in to a failover node, the cluster probe on this cluster node appears as local probe.

Category	Description
Probe [#Number] "[Name]"	<p>Information about the connection status is shown. If the probe is connected, the field shows the source IP address and port number used by the probe. For the local probe, the IP address is always 127.0.0.1. You also see information about the date when the last data packet was received from the probe.</p> <p>If you want to restart a single probe, open the Administrative Tools Settings .</p>

System Settings

Category	Description
Web Server URL	<p>Shows the URL to access the PRTG web interface .</p> <p> If you run PRTG in a cluster, this shows information for the system of the cluster node you are logged in to.</p>
Web Server IP Addresses	<p>Shows all IP addresses that the PRTG web server runs on.</p> <p> If you run PRTG in a cluster, this shows information for the system of the cluster node you are logged in to.</p>
Web Server Ports	<p>Shows the port that the PRTG web server runs on.</p> <p> If you run PRTG in a cluster, this shows information for the system of the cluster node you are logged in to.</p>
Web Server Port Usage	Shows the number of ports used by the PRTG web server.
SSL/TLS Versions for Web Server	Shows the Secure Sockets Layer (SSL)/Transport Layer Security (TLS) versions used for connections from and to the PRTG web server. This is only shown if you use an SSL/TLS-secured connection.
Web Server Ciphers	Shows the ciphers used by the PRTG web server. This is only shown if you use an SSL/TLS-secured connection.
SSL/TLS Versions for Probe Port	Shows the SSL/TLS versions used for the probe port.
Probe Ciphers	Shows the ciphers used for the remote probe connection.
DH Parameters Size	Shows the length of the Diffie-Hellman (DH) parameters. This is only shown if you use an SSL/TLS-secured connection.

Category	Description
Incoming Probe Connection Binding	Shows a combination of the two values below.
Incoming Probe Connection IP Addresses	Shows a list of all IP addresses on which PRTG listens for incoming remote probe connections. This is the same information as shown in the Core & Probes settings. 0.0.0.0 means that the PRTG core server listens on all local network adapter IPs.
Incoming Probe Connection Port	Shows the port number on which the PRTG listens for incoming remote probe connections. The default port is 23560.
Probe Allow IP Addresses	Shows all source IP addresses that PRTG accepts for incoming remote probe connections. This is the same information as shown in the Core & Probes settings and you can change it there. any means that all remote probe connections are accepted, regardless of the IP address of the remote probe system.
Probe Deny IP Addresses	Shows all source IP addresses that PRTG denies for incoming remote probe connections. This is the same information as shown in the Core & Probes settings and you can changed it there. Denied IPs are superior to allowed IPs. If this field is empty, there are no denied IPs. <i>i</i> PRTG automatically adds the IP address of a remote probe system to this list when you delete a remote probe from your device tree .
Data Path	Shows the path where PRTG stores its configuration, monitoring database, etc. To change this setting, open the PRTG Administration Tool on the PRTG core server system (or of the respective cluster node, if applicable). <i>i</i> If you run PRTG in a cluster, this shows information for the system of the cluster node you are logged in to.

Web Server Activity

Shows statistics about the web server since the last startup. All values are reset when the PRTG core server is restarted.

i If you run PRTG in a cluster, this shows information for the system of the cluster node you are logged in to.

Category	Description
Time Since Startup	Shows the time that has passed since the PRTG web server was started.

Category	Description
Page Views	Shows the total number of page views on this PRTG core server.
Geo Maps	Shows the total number of geographical maps shown on this PRTG core server.
HTTP Requests	Shows the total number of HTTP requests to this PRTG core server.
HTTP Requests > 500/1000/5000 ms	Shows for how many (percent) of the HTTP requests above the page delivery took longer than 500, 1,000, or 5,000 milliseconds (ms).
Slow Request Ratio	Shows a calculated number of the HTTP request values above. The lower this number is, the faster the PRTG web interface is.

Synchronization

The PRTG core server holds the configuration of the entire monitoring setup and deploys it to the probes. This section shows statistics about the synchronization of the PRTG core server with the local probe and all connected remote probes (if any), since the last startup of the PRTG core server. All values shown here are reset when the PRTG core server is restarted.

- i** If you run PRTG in a cluster, this shows information for the system of the cluster node you are logged in to.
- i** You must log in to the primary master node to see synchronization data for remote probe connections.

Category	Description
Last Synchronization with a Probe	Shows the time stamp of the last probe synchronization, and if there is still something to do.
Probe/Core Message Count	Shows the total number of messages sent between the PRTG core server and probes, as well as a calculated message speed value.
Raw Buffer Count	Shows the number of raw buffers and a corresponding status indicator.
Configuration Requests Sent	Shows the total number of configuration requests and the requests that still have to be sent.
Configuration Requests Deleted	Internal debug information. Usually, this value is 0.
Configuration Requests With Response	Internal debug information. Usually, this value is 0.

More

■ KNOWLEDGE BASE
























What do the PRTG core memory parameters mean?

- <https://kb.paessler.com/en/topic/71671>

How can I speed up PRTG—especially for large installations?

- <https://kb.paessler.com/en/topic/2733>

Setup

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 - [My Account](#)  4123
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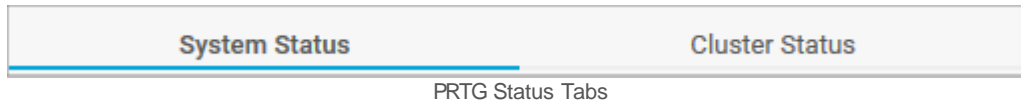
Others

There are some settings that you must make in the [PRTG Administration Tool](#)  4346. For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#) ⁴³⁴⁷
- [PRTG Administration Tool on Remote Probe Systems](#) ⁴³⁷¹

8.12.3.2 Cluster Status

To view the status of your PRTG installation, select Setup | PRTG Status from the [main menu bar](#) ²⁸⁹. Select the various tabs to change the different settings.



You can view the following aspects of the PRTG status:

- [System Status](#) ⁴²³⁶
- [Cluster Status](#) ⁴²⁴⁸

Cluster Status

i This tab is only available if you run PRTG in a [cluster](#) ¹³⁵.

Click the Cluster Status tab to view all cluster nodes. The following information is available:

- Cluster Status: Shows all connected cluster nodes as table and graphic
- Cluster Log: Shows all log entries for cluster connections

PRTG Status

System Status Cluster Status

Cluster Status

Node 10.0.10.35
Failover Node

PRTG Network Monitor (10.0.10.34)
Current Master

Node 1: PRTG Network Monitor (10.0.10.34)
Primary Node (Current Master) [Start Maintenance Mode](#)

Connection To	IP	State
⇒ Node 10.0.10.35	10.0.10.35	Connected

Node 2: Node 10.0.10.35
Secondary Node (Failover Node, Version: 104386) [Start Maintenance Mode](#)



Connection To	IP	State
⇒ PRTG Network Monitor (10.0.10.34)	10.0.10.34	Connected

Cluster Log Items: ~ 50
[Show Filters](#) ▾

Date Time	Object	Status	Message	Cluster Node
2/11/2019 8:38:41 AM	Cluster Probe	Connection connected	Cluster: Connected to node	Node 10.0.10.35
2/11/2019 8:38:41 AM	Cluster Probe	Cluster	Node 2 Connection 1 (10.0.10.35): TCP connected from	Node 10.0.10.35
2/11/2019 8:38:38 AM	Cluster Probe	Connection connected	Cluster: Connected to node	PRTG Network Monitor (10.0.10.34)
2/11/2019 8:38:38 AM	Cluster Probe	Cluster	Node 1 Connection 1 (10.0.10.34): TCP connected from	PRTG Network Monitor (10.0.10.34)

Cluster Status Tab
























Click the Start Maintenance Mode link to put a cluster node in maintenance mode. A cluster node in this mode is still connected to the cluster, but its monitoring results are discarded until you click the Stop Maintenance Mode link. You can use this functionality to explicitly exclude a cluster node from monitoring if you know that the monitoring values are not accurate, for example, because you are reconfiguring the server. During maintenance, a cluster node is displayed with a transparent color in the overview graphic.

 On the Cluster Status tab, you do not see if your [remote probes are connected to failover nodes](#) . Connect to your failover nodes and explicitly check if remote probes are connected (for example, in the device tree of the PRTG web interface on a cluster node).

 For more information about cluster settings, see section [Cluster](#) .

 This feature is not available in PRTG Hosted Monitor.

Setup

- [Account Settings](#) 
 - [My Account](#) 
 - [Notification Templates](#) 
 - [Notification Contacts](#) 
 - [Schedules](#) 
- [System Administration](#) 
 - [User Interface](#) 
 - [Monitoring](#) 
 - [Notification Delivery](#) 
 - [Core & Probes](#) 
 - [User Accounts](#) 
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 - [Cluster Status](#) 
- [License Information](#) 
- [Auto-Update](#) 
- [Optional Downloads](#) 
- [Help and Support Center](#) 
- [Contact Support](#) 

Others

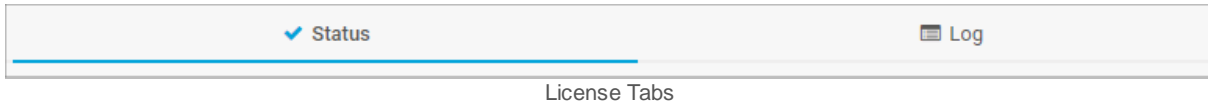
There are some settings that you must make in the [PRTG Administration Tool](#)⁴³⁴⁶. For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#)⁴³⁴⁷
- [PRTG Administration Tool on Remote Probe Systems](#)⁴³⁷¹

8.12.4 License Information

To view information about your license and to enter your license key, select Setup | License Information from the [main menu bar](#) ^[289].

☁ This option is not available in PRTG Hosted Monitor.



You can view the following aspects of your PRTG license:

- [Status](#) ^[4251] tab
- [Log](#) ^[4252] tab
- [Update Your License](#) ^[4252]

☁ If 15 minutes (900) seconds have passed since your last credential-based login and you open a system administration page from a different system administration page, PRTG asks you to enter your credentials again for security reasons. A dialog box appears. Enter your Login Name and Password and click OK to continue.



ⓘ This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

Status

Click the Status tab to view information about your license.

License Information

Setting	Description
License Status	Shows the activation status of this installation of PRTG. Usually, PRTG completes the activation automatically during installation or when you change your license information. Only if PRTG cannot connect directly to the internet, is a manual activation necessary. ■ For more information, see section Activate the Product ^[110] .
License Name	Shows the owner of the license ^[107] that you use for this installation of PRTG, for example ExampleOrganization . License Name, license key, and system ID together build your license information. ⓘ You can find the label License Owner in some documents from the Paessler shop. License Owner is the same as License Name, for which you might be asked while installing PRTG or when you change your license key ^[107] .

Setting	Description
License Key	Shows the license ^[107] key that you use for this installation of PRTG. License Name, license key, and system ID together build your license information.
System ID	The system ID is a fixed value that is automatically assigned to your PRTG installation.
Licensed Edition	Shows the PRTG edition that you use for this installation of PRTG. This determines how many sensors you can use in your monitoring (see below).
Last Update	Shows the date of the last update for this PRTG installation. We recommend that you use the auto-update ^[4257] .
Maintenance until	Shows the expiration date and the days remaining for your active maintenance contract. You can buy maintenance for each PRTG license. With an active maintenance contract, you can download any available updates and use our premium email support.  This information is not visible in Paessler PRTG Enterprise Monitor.
Number of Sensors	Shows the number of sensors you can use in your monitoring with your edition of PRTG. If you reach the limit, PRTG automatically sets each new sensor that you add to a Paused status ^[197] . To upgrade your license right now, click Need more sensors? Click here to upgrade! to visit our web shop. Editions that allow an unlimited number of sensors do not restrict the number of possible sensors by license, so you can create sensors until the performance limit ^[28] is reached. This means that you can use about 10,000 sensors per PRTG core server (depending on your system's performance, sensors, and scanning intervals).  For more information, see section System Requirements ^[23] .

Log

Click the Log tab to show a [table list](#)^[246] of all system log entries with all messages and status changes regarding your license.

Change and Update License Information

Use the following buttons to edit your license or refresh your maintenance information.

- **Get Maintenance:** Click to open the Paessler shop and extend your maintenance for PRTG on premises installations. This button is **only** visible to users of a commercial license.

- Deactivate this License: If you want to use the license of a PRTG installation on a different computer, click this button to deactivate the license. This is necessary, for example, when you move PRTG to a different computer, because a PRTG license can be active on only one computer at the same time. Once you have deactivated the license, the PRTG installation on this computer reverts to the [Freeware Edition](#)^[21] after a grace period of 30 days.

■ See also section [Activate the Product](#)^[110].

Update Your License Information

Click Change License Key or Refresh Information on the Status tab to update your license. Provide the necessary information and click Update License to complete the activation of your license.


- ⓘ If you have any issues with license activation or updates, click Contact Support in the page footer to contact us directly via the [Paessler Service Center](#) in our shop (internet access required).

Step 1: Choose Activation Type

Setting	Description
Activation Type	<p>Define how you want to validate and activate your license:</p> <ul style="list-style-type: none"> ▪ Automatic (online activation with optional HTTP proxy): PRTG connects to the activation server and validates your license. The license is activated automatically. For automatic activation, the PRTG core server system must have internet access. ▪ Manual (offline activation): Choose manual activation if the PRTG core server system has no access to the internet and cannot connect to activation.paessler.com. <ul style="list-style-type: none"> ⓘ This is the default selection if the PRTG core server system is offline.

Step 2: Verify Your PRTG License

Setting	Description
License Name	<p>Enter the License Name that you have received from us, the Paessler AG. It must exactly match. To avoid typing errors, copy and paste the License Name.</p> <ul style="list-style-type: none"> ⓘ You can find the label License Owner in some documents from the Paessler shop. License Owner is the same as License Name, for which you might be asked while installing PRTG or when you change your license key^[107].
License Key	<p>Enter the license key you have received from us, the Paessler AG. To avoid typing errors, copy and paste the License Key. It must exactly match your license key.</p>

Setting	Description
System ID	<p>This field shows the system ID, a fixed value assigned to your PRTG installation.</p> <p> This setting is for your information only. You cannot change it.</p>


For offline activation, click Save to File to write your license information into a text file.

Step 3a: Activate Your PRTG

If you select the automatic activation type, you can now update your license. Define if you need an HTTP proxy for the HTTPS connection to the activation server and click Update License.

Proxy Configuration

 This option is not available in PRTG Hosted Monitor.

Setting	Description
Use Proxy Server	<p>We recommend that you use PRTG with a direct internet connection. However, if you need to use a proxy, you can configure the relevant settings here. Choose between:</p> <ul style="list-style-type: none"> No, use direct connection to the internet (default): Do not use a proxy. Use this setting if a direct internet connection to the PRTG core server system is available. Yes, in our network a proxy is mandatory: Define proxy settings below. <p> Proxy settings are valid for auto-update⁴²⁵⁷, activating the product¹¹⁰¹, obtaining Geo Maps⁴⁰²⁶ tiles, and for sending out HTTP, push, and SMS text message notifications⁴¹³⁸.</p>
Proxy Server	<p>This setting is only visible if you enable Yes, in our network a proxy is mandatory above. Enter the address of the proxy server that you use for outbound connections. Enter a valid address.</p>
Port	<p>This setting is only visible if you enable Yes, in our network a proxy is mandatory above. Enter the port number of the proxy server that you use for outbound connections. Enter an integer value.</p>
Use Proxy Credentials	<p>This setting is only visible if you enable Yes, in our network a proxy is mandatory above. Determine whether the proxy server needs credentials or not:</p> <ul style="list-style-type: none"> No, there are no credentials necessary: Do not use credentials for proxy connections.

Setting	Description
	<ul style="list-style-type: none"> Yes, the proxy server requires credentials: Define credentials (username and password) below.
User	This setting is only visible if you enable Yes, the proxy server requires credentials above. Enter a user name for proxy authentication. Enter a string.
Password	This setting is only visible if you enable Yes, the proxy server requires credentials above. Enter a password for proxy authentication. Enter a string.

Step 3b: Request Activation Data

If you select Manual (offline activation), you have to request your activation data at <https://www.paessler.com/activation> using your license information. Open the activation page from a computer with internet access and provide your license information.

Generate the key file for your license and provide this data below.

Step 4: Provide Activation Data

This step is only necessary if you activate your license offline.

- Copy the content of the key file that you have generated on <https://www.paessler.com/activation>.
- Paste it into the Activation Data field. Alternatively, click Load from File if you have saved the key file with your activation data.
- Click Update License to complete the activation of your license.

More

■ KNOWLEDGE BASE





How do I upgrade to a higher edition of PRTG?

- <https://kb.paessler.com/en/topic/4193>




















The automatic license activation of my PRTG Enterprise Monitor license does not work. What can I do?

- <https://kb.paessler.com/en/topic/89281>

Setup

- [Account Settings](#)  4123
 - [My Account](#)  4123
 - [Notification Templates](#)  4131
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Part 8: Advanced Procedures | 12 Setup
4 License Information

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- [System Administration](#) 
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Others

There are some settings that you must make in the [PRTG Administration Tool](#)  4346. For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#)  4347
- [PRTG Administration Tool on Remote Probe Systems](#)  4371


8.12.5 Auto-Update

Whenever a new version of PRTG is available from the Paessler website, PRTG automatically downloads the setup file if a direct internet connection is available. The [PRTG System Administrator](#) user then receives a [ToDo ticket](#)^[240] with instructions to initiate the update installation.

If you are using a [Freeware or Trial Edition](#)^[21], automatic software updates are available at any time. If you are using a [Commercial Edition](#)^[21], you need to have an active maintenance contract to receive updates.

 This option is not available in PRTG Hosted Monitor.

Status


 This documentation refers to an administrator that accesses the PRTG web interface on a master node. Other user accounts, interfaces, or failover nodes might not have all of the options in the way described here. In a cluster, note that failover nodes are read-only by default.

To view the auto-update page, select Setup | Auto-Update from the [main menu bar](#)^[289]. On the Status tab, you can download and install updates.

Using Auto-Update

If there is a new version available, you see detailed information about the available version. Read these notes carefully. You find a summary of current and past release notes below the update section. For detailed release notes, click PRTG Release Notes and Version History, which redirects you to the [version history page on paessler.com](#).

To install the latest available version, click Install Update [version number]. PRTG asks you to confirm installation and license.

 Downloaded software versions are automatically saved in the \download subfolder of the [PRTG program directory](#)^[4526]. The [prtg.zip](#) that contains all necessary files is also cached in this subfolder.

Here you can automatically update your PRTG installation.

- If you are using the freeware or trial edition you can always update to the latest version for free
- If you are using a commercial edition your license key must be covered by a valid maintenance contract in order to download updates.
- You can always prolong your maintenance at <https://shop.paessler.com>

You can deactivate automatic downloading in the [Settings tab](#).

Update Status For PRTG Network Monitor

Remaining Maintenance Days	4704 (4/29/2030)
Latest Message from Auto-Update	[6/12/2017 3:50:05 PM] Downloaded version (17.2.32.2190) is not newer than your current version (17.2.32.2194).
Currently Installed Version	17.2.32.2194+
Currently Selected Release Channel	Canary Select Other Release Channel
Latest Version Available from Paessler	17.2.32.2196 NEW! Check For Latest Update and Download
Latest Downloaded Version	

Automatic Software Update Page

Manually Install an Interim Update

Not all available updates from Paessler are pushed to all customers, but they are still available from the website. Sometimes the Paessler support team might ask you to update to the latest version.

In this case, click [Check For Latest Update and Download](#). PRTG connects to the Paessler servers and downloads the setup file, regardless of the status of the update check. Then [Install Update \[version number\]](#).

To use this function, a direct internet connection is necessary on the PRTG core server system.

Select Other Release Channel

PRTG is available in three different release channels. To change the release channel you receive updates from, open the auto-update [Settings](#) ⁴²⁵⁸ tab and choose the desired release channel in the Release Channel section.

Log

Click the Log tab to show log information about the update status of PRTG, newest first. In the [table list](#) ²⁴⁶, you can filter the items by using the [respective options](#) ²⁴⁶.


For more information, see section [Logs](#) ²³⁷.

Settings

Click the Settings tab to configure the Software Auto-Update.

Software Auto-Update

Setting	Description
When a New Version is Available	<p>Define what to do when software updates are available:</p> <ul style="list-style-type: none"> Automatically download and install the latest version: PRTG automatically downloads and installs any new version as soon as PRTG detects that a newer version is available (PRTG checks this once per day). <ul style="list-style-type: none"> i The installation of a new version restarts the PRTG core server service and PRTG probe service and might also include a server restart. Automatically download the latest version and alert the admin: PRTG automatically downloads any new version as soon as PRTG detects that a newer version is available (PRTG checks this once per day). After successful download, PRTG creates a ToDo ticket^[240] for the PRTG System Administrator user. Alert the admin only: When PRTG detects that a newer version is available, it does not automatically download updates, but only creates a ToDo ticket. You can still manually download updates via the auto-update^[4258].
Installation Time	<p>If you select the automatic installation option above, choose the desired time for the installation of updates from the dropdown list. You can also choose As soon as the update is available, which can be at any time of the day.</p>
Release Channel	<p>Updates are delivered in different release channels. You can choose between maximum stability, or most early access to new features. Choose from:</p> <ul style="list-style-type: none"> Stable: Updated about once per month (most conservative option, recommended): These are our best tested versions. Choose this channel for live environments that you depend on. Preview: Updated about once per month (thoroughly tested in our labs, do not use on production systems): Versions in this channel are already thoroughly tested in our labs, but might still contain limitations in certain monitoring configurations. Choose this channel if you are willing to take a little risk for the benefit of getting new features and bug fixes a little earlier. <ul style="list-style-type: none"> i We strongly recommend that you not use those versions in live environments you depend on. Canary: Updated daily (testing only, should not be used on production systems): Updated every night. <ul style="list-style-type: none"> i Use with caution. Software versions in this channel are not tested yet, might contain severe bugs, and are provided for testing purposes only. We strongly recommend that you not use those versions in live environments you have to depend on.

-  Save your settings. If you change tabs or use the main menu without saving, all changes to the settings are lost.

Notes

There are a few things we ask you to consider regarding automatic software updates:

- For auto-update to work, the PRTG core server system needs direct internet access. If a proxy connection is needed, configure it in the [Core & Probes](#) settings.
 - For details about the update servers, see the Knowledge Base: [Which servers does PRTG connect to for software auto-update and for activation?](#)
- During installation, the PRTG core server might restart without notice.
- PRTG automatically updates remote probes, causing short downtimes in monitoring of remote locations. In rare cases, a manual update of remote probes is required after you update the PRTG core server. In these cases, you are notified in the device tree, and monitoring of remote locations is interrupted until you perform the [manual update](#) on the remote probe system. If a probe system uses several network connections with different IP addresses, ensure these addresses are included in the [list of allowed IPs](#). Otherwise the remote probe on this machine might be disconnected after an update.
- In a cluster, you only need to install the update on one cluster node. The new version is then automatically deployed to all other cluster nodes (causing a short amount of downtime for the monitoring on the cluster nodes, one after the other).
- If you run several individual PRTG core servers that are not in a cluster, you have to initiate and confirm an update for each single PRTG core server.
- You can disable automatic downloading on the auto-update [Settings](#) tab. Updates are then only downloaded on request, when you click Check For Latest Update and Download.
- PRTG does not start auto-update downloads if less than 500 MB disk space is available on the PRTG core server system. If this is the case, you can check this on the [Log](#) tab.
- Virus scanners can potentially cause issues when downloading or installing software updates. To avoid such issues, we recommend that you make the appropriate exclusions for the PRTG program directory.

More

KNOWLEDGE BASE

Which servers does PRTG connect to for software auto-update, activation, etc.?

- <https://kb.paessler.com/en/topic/32513>

Which information does PRTG send back to Paessler?

- <https://kb.paessler.com/en/topic/28103>

How and where does PRTG store its data?
























- <https://kb.paessler.com/en/topic/463>

PAESSLER WEBSITE

Release notes for the "stable" release channel

- <https://www.paessler.com/prtg/history/stable>

Setup

- [Account Settings](#)  4123
 - [My Account](#)  4123
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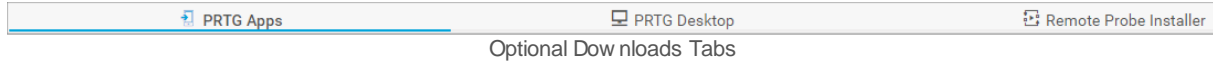
Others

There are some settings that you must make in the [PRTG Administration Tool](#)  4346. For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#)  4347
- [PRTG Administration Tool on Remote Probe Systems](#)  4371

8.12.6 Optional Downloads

To see optional downloads, select Setup | Optional Downloads from the [main menu bar](#)^[289]. Click a tab to switch between different options.



The following downloads are available:

- [PRTG Apps](#)^[4262]
- [PRTG Desktop](#)^[4262]
- [Remote Probe Installer](#)

PRTG Apps

To monitor your network while on the go, use our free PRTG apps for smartphones and tablets. They run on iOS and Android.

■ For more information, see section [PRTG Apps for Mobile Network Monitoring](#)^[4278].

■ For more information on PRTG for iOS and PRTG for Android, see our website: [PRTG Apps for iOS or Android](#)

PRTG Desktop

Download PRTG Desktop to your computer. You can run it on Windows and macOS to manage one or several independent [PRTG core servers](#)^[4262] or PRTG Hosted Monitor instances with a native, cross-platform application.

■ For more information, see section [PRTG Desktop](#)^[4275].

■ Directly download PRTG Desktop from our website: [PRTG Desktop Download](#)

☁ PRTG Hosted Monitor supports connections from PRTG Desktop. For more information, see section [Using PRTG Hosted Monitor](#)^[56].

Remote Probe Installer

With remote probes, you can extend your monitoring to distributed networks that are not directly reachable from your PRTG core server system. The version of the remote probe installer must match your version of PRTG, so it is a good idea to download it from here.

■ For more information, see section [Install a Remote Probe](#)^[112].

More

■ [PAESSLER WEBSITE](#)
























[PRTG Desktop](#)

- <https://www.paessler.com/prtg-desktop>

PRTG apps for iOS or Android



- <https://www.paessler.com/apps>

Setup

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Others

There are some settings that you must make in the [PRTG Administration Tool](#)  4346. For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#)  4347
- [PRTG Administration Tool on Remote Probe Systems](#)  4371

8.12.7 Help and Support Center

To access help and support information for PRTG, select Setup | Help and Support Center from the [main menu bar](#) ²⁸⁹.

Help and Support Center

- PRTG MANUAL** ²⁸⁹
The PRTG Manual provides in-depth coverage of all topics you need for network monitoring with PRTG, including:
 - Basic Concepts of PRTG
 - Basic Procedures in the PRTG Web Interface
 - Advanced Procedures in the PRTG Web Interface
 - Device and Sensor Setup
 - Sensor Technologies[READ MANUAL >](#)
- KNOWLEDGE BASE** [?]
The Knowledge Base contains thousands of articles about PRTG, including:
 - Tutorials and How-Tos
 - Tips and Tricks
 - Custom Code
 - Workarounds
 - Contribute: Make your own questions, answers, and custom content available for all PRTG users worldwide![GET ANSWERS >](#)
- VIDEO TUTORIALS** [▶]
Find comprehensive videos created by our network monitoring professionals, including:
 - PRTG Basics
 - All About Monitoring
 - PRTG Advanced
 - PRTG Webcasts
 - PRTG Apps[HAVE A LOOK >](#)
- ADVANCED TOPICS** ⁺
This section covers various topics and special use cases for advanced users, including:
 - Active Directory Integration
 - Application Programming Interface (API)
 - Lookups
 - Setting up Remote Probes and Failover Clusters
 - And many more![LEARN MORE >](#)
- TECHNICAL SUPPORT** ⁺
If the available help resources did not help you, you can open a support ticket at any time. Usually we will answer your questions within 24 hours on business days. Please use the Contact Support form and describe your issue with as much detail as possible.
We will be happy to help you!
[CONTACT SUPPORT >](#)
- CUSTOMER SERVICE** ⁺
Let us help you with your license purchase, upgrade, or maintenance extension. Our Customer Service Team is happy to assist you with quotes (and valuable license/maintenance information), guide you through the purchasing process, and facilitate the contact to our system engineers and/or our partners in your region.
[CONTACT US >](#)
















Help and Support Center

The Help and Support Center is where you can access the PRTG Manual, the Knowledge Base, and video tutorials. You can also open support tickets and contact our customer service.

- [User Manual](#) ¹⁴
- [Knowledge Base](#)
- [Video Tutorials](#)
- [Advanced Topics](#) ⁴³⁸⁴
- [Technical Support](#) ⁴²⁶⁶
- [Customer Support](#) ¹⁷⁹

Setup

- [Account Settings](#) ⁴¹²³
 - [My Account](#) ⁴¹²³
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 - [Notification Contacts](#) ⁴¹⁶³
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Others

There are some settings that you must make in the [PRTG Administration Tool](#)  4346. For more details, see the sections:

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- [PRTG Administration Tool on Remote Probe Systems](#)  4371

8.12.8 Contact Support

For technical issues, use the Contact Paessler Support / Send Your Feedback to Paessler form in PRTG. To open the form, select Setup | Contact Support from the [main menu bar](#)²⁸⁹. You can also open the form via Contact Support in the footer on every page in PRTG.

The screenshot displays the PRTG Network Monitor interface. At the top, there are navigation tabs for 'Logs', 'Tickets', and 'Setup'. The 'Setup' menu is open, showing options: Overview, Account Settings, System Administration, PRTG Status, License, Auto-Update, Optional Downloads, PRTG API, and Help and Support Center. The 'Contact Support' option is highlighted with a blue box and a blue arrow pointing to it. Below the menu, there is a 'Notification Triggers' section with fields for Status, Default Interval, and ID. A map of North America is visible. The main area contains three line graphs showing performance metrics over different time periods: 2 days, 30 days, and 365 days. The graphs plot Alarms (#), Response Time (%), CPU Load Index (%), and Traffic Index (%). A legend at the bottom identifies the data series: Alarms (#) in red, Response Time (%) in dark blue, CPU Load Index (%) in green, and Traffic Index (%) in pink. At the bottom of the interface, a 'Contact Support' button with an envelope icon and a 'Help' button with a question mark icon are visible. A blue arrow points to the 'Contact Support' button.

How to Open the Contact Support Form

On the one hand, you can use this form to give us [feedback](#). Help improve PRTG by providing criticism, praise, bug reports, and feature requests. Any comments are welcome. Your feedback is handled directly by the Paessler support team.

On the other hand, you can use this form to ask for support regarding technical issues. To make the support contact more comfortable, PRTG can automatically attach a screenshot in combination with a [Support Bundle](#) that contains several selected PRTG logfiles and status files. This information really helps the Paessler support team to analyze any issue you might have with PRTG. Also consider the suggested links to articles regarding the scope of your issue.

We offer our support directly from our headquarters in Nuremberg, Germany, working closely with our development department to guarantee the fastest and most constructive assistance possible. As we have to analyze a lot of data over the course of a support case, like logfiles and screenshots, we use email as our primary support mechanism. Our office is staffed Monday to Friday from 07:00 to 22:00 (UTC+1), so you receive an answer within 24 hours on business days. Depending on the complexity of the case, we might need to ask for remote access to your system, or to schedule a remote desktop session.

One-to-One Support

Customers with valid maintenance can open support tickets. Use the Contact Support form of your PRTG installation for technical questions to get the best possible help from our experts. If you have trouble using this form, you can fill out the [support ticket form on our web page](#).

Do you use our Freeware? We try to answer your questions in a timely manner but if we are busy, paying customers come first. You might find an answer in our [Knowledge Base](#).

Supported Versions

Note that we only support PRTG versions that were released in the last 12 months. For more information on released versions, see our website: [Release notes for the "stable" release channel](#).

Single Topics

Open a new ticket for each new topic.

Communication Methods

Write us in English or German and communicate via email. This is the best way for us to analyze your logfiles, screenshots, and other data in detail. We always try to answer within 24 hours on business days. If necessary, we ask you for remote access.

Updates and License Key

If you are looking for updates or your license key, log in to the [Paessler Software Shop and Customer Service Portal](#).

Network Planning

If you need help with your network setup or detailed installation planning, our partners are always happy to help. Please [contact a partner near you](#).

How Contact Support Works

PRTG securely transmits your feedback or support question including the support bundle to Paessler via the PRTG Cloud.

- ① Make sure that your PRTG core server system has access to the internet and can reach the URL <https://api.prtgcloud.com:443>

Legal Notice on Data Privacy

Paessler safeguards data that you send to our organization in the same manner in which we protect our own similar confidential information and in accordance with the GDPR. However, Paessler cannot guarantee that your data is handled in compliance with all regulatory standards that are applicable to such data. Accordingly, do not send any data that is subject to regulations that prescribe special handling requirements to Paessler. If your data file contains this type of regulated information, contact us before sending it. We can discuss masking, obfuscation, or other possible methods of converting your data set to a format that Paessler can manage.

Security Reports

If you are a user of PRTG or any of our other services and would like to file a security report, send an email to security@paessler.com. Always include a detailed technical summary in your email. If you wish to send us an encrypted email, use the public key on this page <https://www.paessler.com/support>.

Feature Requests

Do you have requests or suggestions that could improve PRTG? The [Paessler support team](#) is happy to hear your ideas. Read more in our Knowledge Base on [how we handle your feedback](#).

Contact Paessler Support / Send Your Feedback to Paessler ✕

Ask a Question or Give Feedback

Your Ticket ID PAE<id>
(If You Have One) ⓘ

Your Email Address

john.q.public@company.com

Scope of Your Question

- PRTG configuration and usage
- PRTG Desktop and PRTG apps for iOS or Android
- Technical issues (performance, web server, sensors, probes, cluster)
- Critical issue (large parts of my monitoring do not work)
- Other (including feedback and feature requests)

Helpful resources:

- Help with installation, licensing, and setup
- Information about data storage/backup/migration and updating PRTG
- Working with user accounts and user rights
- Installing an SSL certificate for the PRTG web server
- Configuring a failover cluster

Emotional State

OK ▾

Enter a Subject for Your Question/Feedback ⓘ

[Cancel](#) [Submit](#)

Contact the Paessler Support or Send Feedback

Ask a Question or Give Feedback

Provide the following information in this section of the contact form.

Field	Description
Your Ticket ID PAE<id>	If you have already opened a ticket (directly via email to support@paessler.com , via the Knowledge Base , or via the support form on paessler.com), enter its ID here. You can find it in your confirmation email regarding the request we received. You can provide the ID with "PAE" in front or only the number. If you leave this field empty, you create a new ticket when you submit this form.
Your Email Address	Enter your email address here. You can provide any of your addresses. However, the recommended and default address is the email address of your user account to be able to associate you with your license.
Scope of Your Question	Select a topic regarding your issue and consider the proposed links.
Emotional State	If you want to, you can express your feelings about PRTG.
Enter a Subject for Your Question/Feedback	Provide short information with max. 60 characters to indicate the topic of your issue.
Enter a Detailed Description	Leave your comments here. They can be feedback or support questions. If you have a support question, describe your issue with as much detail as possible.

Attach a Screenshot and/or Support Bundle

To provide the most helpful information possible, you can attach a screenshot of the selected page and a support bundle with useful analytical data about your PRTG installation.

Setting	Description
Do not attach screenshot	Send the ticket without a screenshot. i If you ask for technical help, we recommend that you attach a screenshot. This helps us a lot to analyze your issue and to provide a solution.
Create and attach screenshot (recommended)	PRTG creates a screenshot of the selected page and sends it with your ticket. You can see a preview below the screenshot section. i We recommend that you open the contact support form directly on the page where you encountered an issue. Taking screenshots is not possible on some generic error pages that are not meaningful enough for the Paessler support team.

In section Support Bundle, you can choose from several packages that differ in coverage of information.

Setting	Description
Support Bundle	<ul style="list-style-type: none">▫ Attach Base Pack with logfiles (recommended): Contains the following data about PRTG:<ul style="list-style-type: none">▫ System status▫ Lists of sensors in the Down status or the Unknown status▫ Core and probe health data▫ Current log entries▫ Attach Base Pack with logfiles and PRTG configuration file: Contains the Base Pack and the PRTG configuration file.<ul style="list-style-type: none">① Send this package only if the Paessler support team told you so. Usernames, encrypted passwords in the config.dat file, and passwords that your browser masks while you enter them on settings pages are removed before PRTG sends this package to the Paessler support team.▫ Do not attach a Support Bundle: The ticket does not contain files. Choose this option only when sending feedback.

Click Submit to send your request directly to the Paessler support team, or click Cancel to return to the page where you opened the contact form. Usually, you receive an answer from the Paessler support team within one or two business days.

① If you have questions or feedback regarding your license purchase, upgrade, or maintenance extension, [contact our customer service](#) ¹⁷⁹.

More

■ KNOWLEDGE BASE

How can I propose new features or sensors for PRTG?

- <https://kb.paessler.com/en/topic/79245>




















■ PAESSLER WEBSITE

Release notes for the "stable" release channel

- <https://www.paessler.com/prtg/history/stable>

Setup

- [Account Settings](#) ⁴¹²³
 - [My Account](#) ⁴¹²³
 - [Notification Templates](#) ⁴¹³¹
 - [Notification Contacts](#) ⁴¹⁶³

- [Schedules](#)  4169
- [System Administration](#) 
 - [User Interface](#)  4175
 - [Monitoring](#)  4187
 - [Notification Delivery](#)  4194
 - [Core & Probes](#)  4202
 - [User Accounts](#)  4211
 - [User Groups](#)  4219
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 - [Single Sign-On](#)  4232
- [PRTG Status](#)  4236
 - [System Status](#)  4236
 - [Cluster Status](#)  4248
- [License Information](#)  4251
- [Auto-Update](#)  4257
- [Optional Downloads](#)  4262
- [Help and Support Center](#)  4264
- [Contact Support](#)  4266

Others

There are some settings that you must make in the [PRTG Administration Tool](#)  4346. For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#)  4347
- [PRTG Administration Tool on Remote Probe Systems](#)  4371

Part 9

PRTG Desktop

9 PRTG Desktop

PRTG Desktop is an alternative interface that you can use to connect to one or several independent [PRTG core servers](#) or PRTG Hosted Monitor instances to configure your setup, view monitoring results, and keep an eye on your network. It is a cross-platform application for fast access to data and monitoring management.

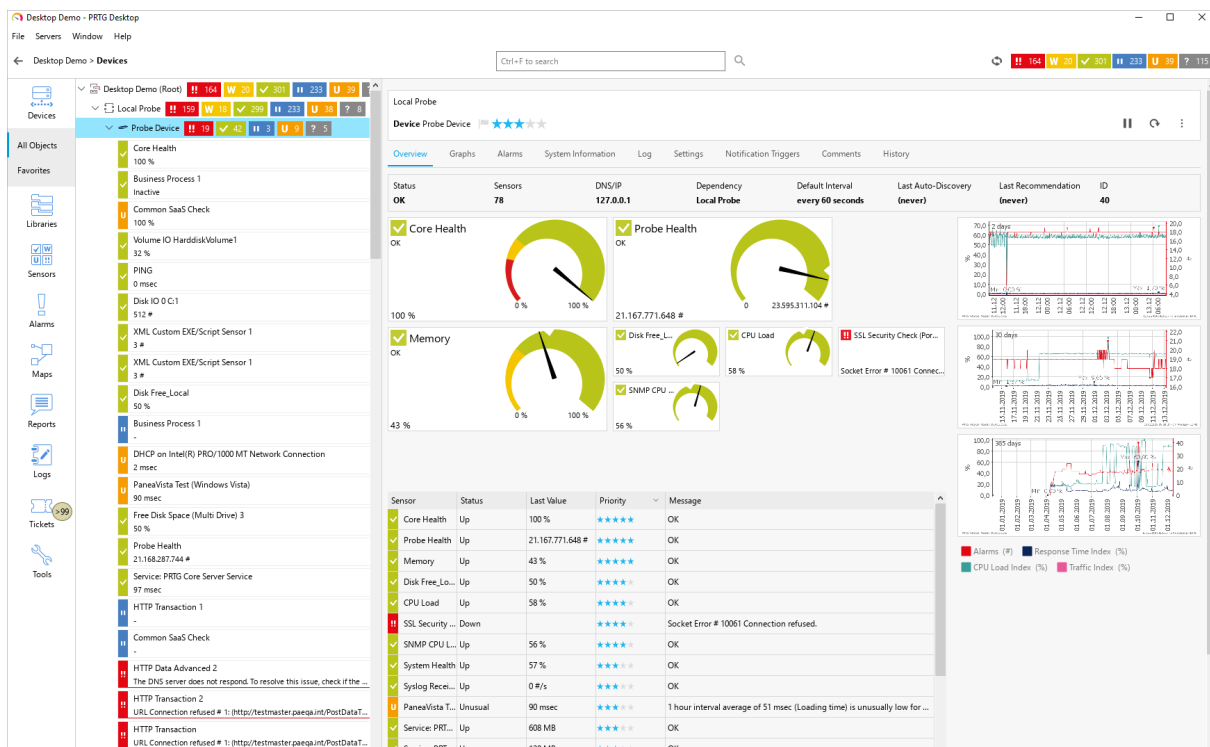
PRTG Desktop natively includes most PRTG functions. For a few options, PRTG Desktop opens an external browser window using your default browser, for example, for system setup.

PRTG Desktop also optionally displays a tray icon, taskbar notifications, or plays notification sounds to keep you up to date in the case of new Alarms, Log Entries, or Tickets.

To use PRTG Desktop, [download](#) and install it on your Windows or macOS computer.

Download the PRTG Desktop user manual here: [PRTG Desktop User Manual \(PDF\)](#)

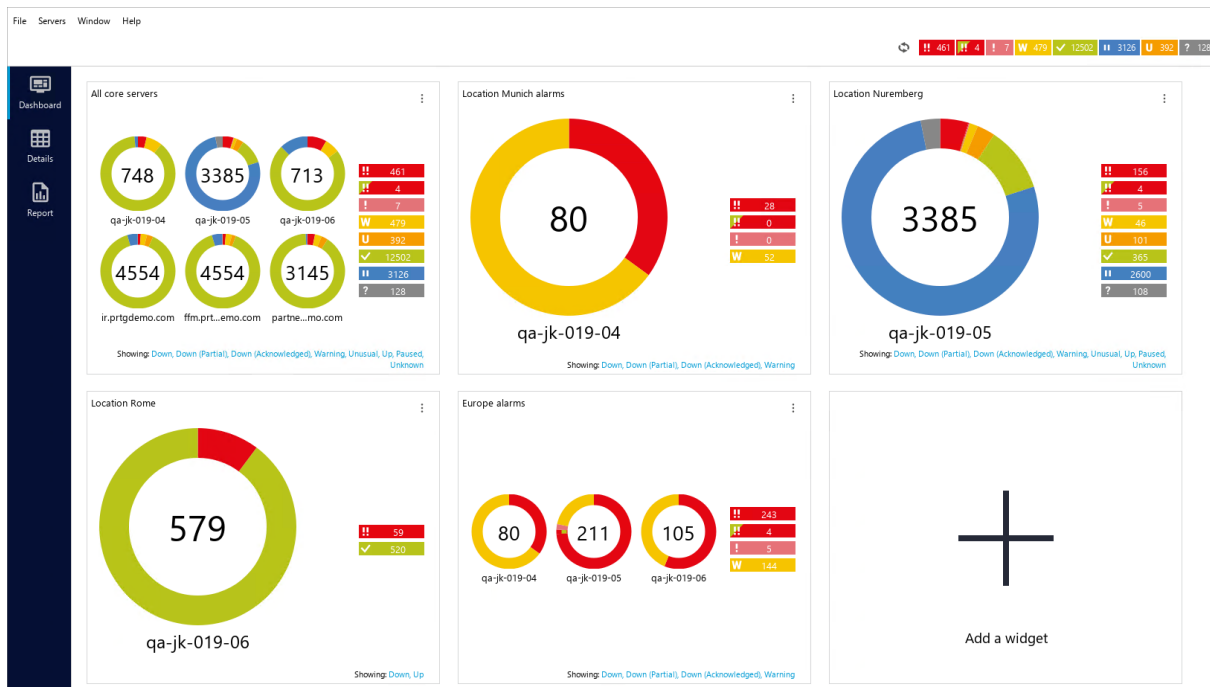
Directly download PRTG Desktop from our website: [PRTG Desktop Download](#)



PRTG Desktop

Access Several Servers in One Console

Using the Multi Server functionality of PRTG Desktop, you can connect to several independent servers to view their data and manage your monitoring centrally.



Multi Server window

- **Dashboard:** Show an overview of all sensors and current alarms of each configured server.
- **Details:** Select a configured server to show its alarms.
- **Report:** Show an overview of the number of sensors on each connected server and in total, and the number of sensors that show a certain status. Export the report in comma-separated values (CSV) format.

i PRTG Desktop is mainly designed to review and manage PRTG installations that you already set up. If you have just started with monitoring, we recommend that you first run through the [smart setup](#)^[48] in the [PRTG web interface](#)^[163] and add your network devices there. Once finished, you can seamlessly switch to PRTG Desktop.

☁ PRTG Hosted Monitor supports connections from PRTG Desktop. For more information, see section [Using PRTG Hosted Monitor](#)^[56].

More

■ KNOWLEDGE BASE

Which audible notifications are available in the PRTG web interface and in PRTG Desktop?

- <https://kb.paessler.com/en/topic/26303>

How do I troubleshoot erratic behavior of push notifications in PRTG Desktop or the PRTG apps?

- <https://kb.paessler.com/en/topic/86064>

■ PAESSLER WEBSITE

How to set up PRTG Desktop notifications in 3 steps

- <https://www.paessler.com/support/how-to/notifications-desktop>

Part 10

PRTG Apps for Mobile Network Monitoring

10 PRTG Apps for Mobile Network Monitoring

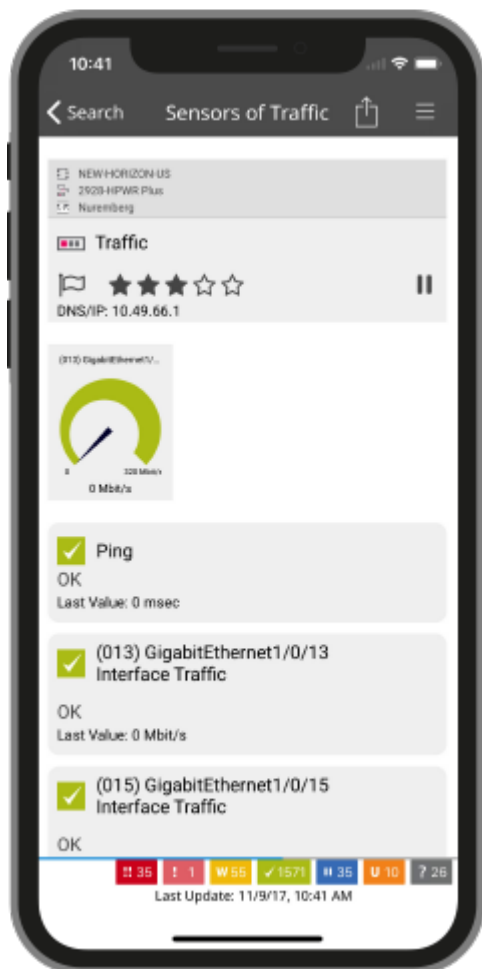
You can access your PRTG installation on your mobile devices with PRTG apps for iOS or Android. You can download and use these PRTG apps for free. [PRTG for iOS](#) ⁴²⁷⁸ and [PRTG for Android](#) ⁴²⁷⁸ let you monitor your network while on the go.

The basic requirements to use these free PRTG apps are a running PRTG core server that is accessible from the network your device is connected to (either directly or via a VPN connection) and a recent operating system version on your mobile device. For details about requirements, see below.

PRTG for iOS

PRTG for iOS is the iOS app that you can use as of PRTG 13. You can use the newest PRTG app version on iPhone, iPad, and iPod touch with iOS version 9 or later. You can also use free [push notifications](#) ⁴¹⁵³ with this PRTG app (required: PRTG for iOS 14.3.6 or later; PRTG 15.4.20 or later).

■ For more information and to download this PRTG app, see our website: [PRTG for iOS](#). For troubleshooting solutions, see the Knowledge Base: [I have an issue with PRTG for iOS. What can I do?](#)

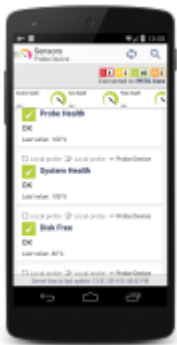


Traffic Sensors on iPhone

PRTG for Android

PRTG for Android is the Android app that you can use as of PRTG 14. Use it on your smartphone or tablet with Android version 4.0 or later, or on a Kindle Fire. For full functionality, we recommend that you use at least Android 4.1. You can also use free [push notifications](#) ⁴¹⁵³ with the PRTG app (required: PRTG for Android 14.3.2 or later; PRTG 15.4.20 or later).

■ For more information and to download this PRTG app, see our website: [PRTG for Android](#). For troubleshooting solutions, see the Knowledge Base: [I have an issue with PRTG for Android. What can I do?](#)



Sensor List on PRTG for Android

More

■ KNOWLEDGE BASE

I have an issue with PRTG for iOS. What can I do?

- <https://kb.paessler.com/en/topic/88395>

I have an issue with PRTG for Android. What can I do?

- <https://kb.paessler.com/en/topic/88151>

Which features do the PRTG apps for iOS or Android support?

- <https://kb.paessler.com/en/topic/60042>

How can I use push notifications with PRTG?

- <https://kb.paessler.com/en/topic/60892>

How do I troubleshoot erratic behavior of push notifications in PRTG Desktop or the PRTG apps?

- <https://kb.paessler.com/en/topic/86064>

■ PAESSLER WEBSITE

PRTG apps for iOS or Android

- <https://www.paessler.com/apps>

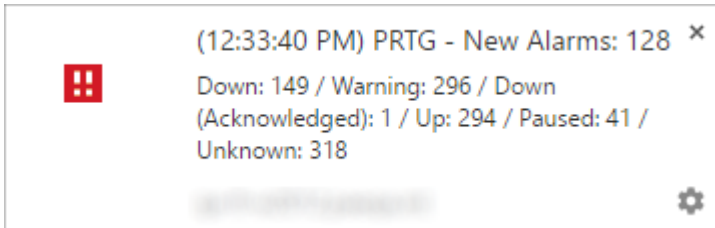
Part 11

Desktop Notifications

11 Desktop Notifications

While you are logged in to the PRTG web interface with your Google Chrome or Firefox browser, PRTG can show notifications on your desktop whenever there are new alarms in your monitoring.

PRTG shows desktop notifications (by default, in the lower-right corner of your desktop) whenever there are new alarms after a page refresh in the PRTG web interface. The notification displays the number of new alarms and the current number of each [sensor status](#).



Example of a Chrome Desktop Notification

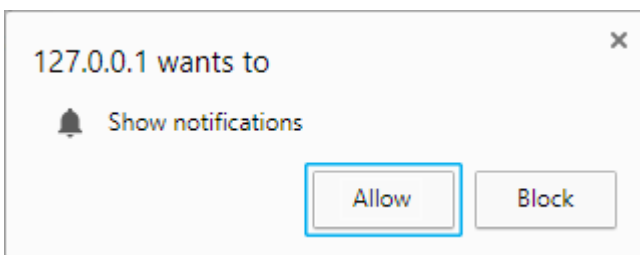
i Desktop notifications are not available for Internet Explorer.

Desktop Notifications Settings

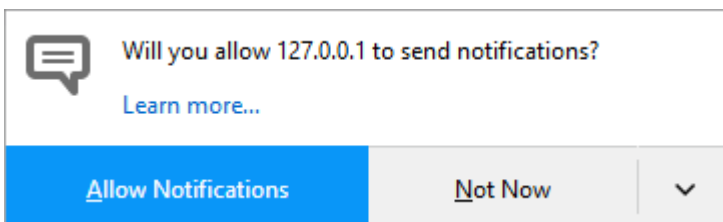
When you log in to the PRTG web interface, a message appears, asking you to allow desktop notifications. You have to initially allow the notifications for each installation or profile of Firefox or Google Chrome.

i Desktop notifications in Google Chrome are not available for HTTP connections. See section [User Interface](#) for more information.

- In Google Chrome, click Allow to add the URL of the PRTG web interface to the allowed sites.
- In Firefox, click Allow Notifications to add the URL of the PRTG web interface to the allowed sites.



Click 'Allow' to enable Google Chrome Desktop Notifications


























Click 'Allow Notifications' to enable Firefox Desktop Notifications

Disabling or Re-Enabling Desktop Notifications

To disable or re-enable desktop notifications for the PRTG web interface, edit your browser options:

- In Google Chrome: Click the View site information icon in the address bar of the browser. You can block or re-enable notifications for the PRTG web interface in section Notifications.
- In Firefox: Click the Show site information icon in the address bar of the browser. You can block or re-enable notifications for the PRTG web interface in section Permissions.

Setup

- [Account Settings](#)  4123
 - [My Account](#)  4123
 - [Notification Templates](#)  4131
 - [Notification Contacts](#)  4163
 - [Schedules](#)  4169
- [System Administration](#)  4175
 - [User Interface](#)  4175
 - [Monitoring](#)  4187
 - [Notification Delivery](#)  4194
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 - [User Groups](#)  4219
 - [Administrative Tools](#)  4225
 - [Cluster](#)  4229
 - [Single Sign-On](#)  4232
- [PRTG Status](#)  4236
 - [System Status](#)  4236
 - [Cluster Status](#)  4248
- [License Information](#)  4251
- [Auto-Update](#)  4257
- [Optional Downloads](#)  4262
- [Help and Support Center](#)  4264
- [Contact Support](#)  4266

Others

There are some settings that you must make in the [PRTG Administration Tool](#)  4346. For more details, see the sections:

- [PRTG Administration Tool on PRTG Core Server Systems](#)  4347

- [PRTG Administration Tool on Remote Probe Systems](#) 















Part 12

Sensor Technologies

12 Sensor Technologies

This section introduces different technologies that PRTG uses for monitoring to give you more background information. Read more in the following sections.

Sensor Technologies

- [Monitoring via SNMP](#)  4286
- [Monitoring via WMI](#)  4298
- [Monitoring via SSH](#)  4301
- [Monitoring Bandwidth via Packet Sniffing](#)  4305
- [Monitoring Bandwidth via xFlows](#)  4305
- [Bandwidth Monitoring Comparison](#)  4308
- [Monitoring Quality of Service](#)  4310
- [Monitoring Email Round Trip](#)  4315
- [Monitoring Backups](#)  4317
- [Monitoring Virtual Environments](#)  4318
- [Monitoring Databases](#)  4324
- [Monitoring Syslogs and SNMP Traps](#)  4326
- [Monitoring via Push](#)  4335
- [Monitoring via HTTP](#)  4339

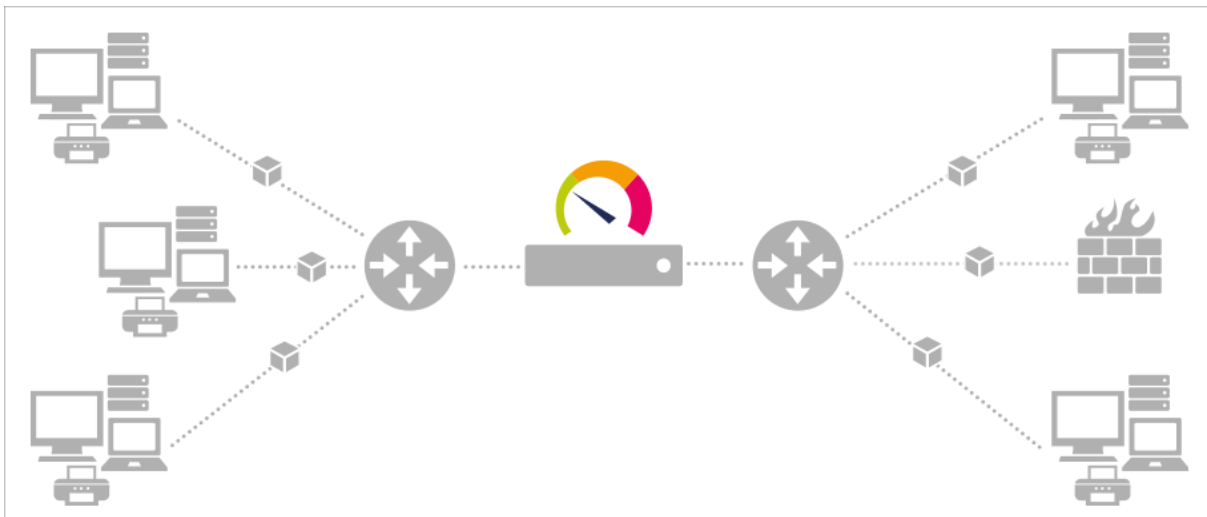
12.1 Monitoring via SNMP

Monitoring via the Simple Network Management Protocol (SNMP) is the most basic method of gathering bandwidth and network usage data.

How SNMP Monitoring Works

Simple Network Management Protocol (SNMP) is a set of standards for communication with devices in a Transmission Control Protocol (TCP)/IP network. SNMP monitoring is useful if you are responsible for servers and network devices such as hosts, routers, hubs, and switches. It enables you to keep an eye on network and bandwidth usage, and monitor important issues such as uptime and traffic levels.

You can use SNMP to monitor the bandwidth usage of routers and switches on a port-by-port basis, as well as device readings such as memory and CPU load. The target devices must support SNMP. Most devices with enabled SNMP require the same configuration like SNMP version and community string. To find out how to set up SNMP on a specific device, search the internet for your device name or model and SNMP configuration.



Network Monitoring via SNMP

When you use a sensor with this technology, PRTG sends small data packets to devices, for example, querying routers, switches, and servers for the traffic counters of each port. These queries trigger reply packets from the device. Compared to other bandwidth monitoring technologies via World Wide Name (WWN), packet sniffing, or Windows Management Instrumentation (WMI), the SNMP option creates the least CPU and network load.

Reasons to Choose SNMP Monitoring

SNMP is the most commonly used method because it requires minimal bandwidth and CPU cycles. If your network devices support SNMP and/or if you want to monitor large networks with several hundred or thousands of sensors, we recommend that you start with SNMP.

Besides network usage monitoring, another well-known feature of SNMP is the ability to also monitor other network parameters such as CPU load, disk usage, temperature, as well as many other readings, depending on the queried device.



SNMP Network Issues

To use SNMP for monitoring purposes, it is necessary that User Datagram Protocol (UDP) packets can be bidirectionally sent from the PRTG core server to the device that you want to monitor. This is usually the case in LANs and intranets. For connections across the internet, to a perimeter network (also known as DMZ, demilitarized zone, and screened subnet), or for WAN connections, some changes to the traversed firewalls might be necessary.

Keep in mind that SNMP v1 and v2c are no secure protocols, so you should not use them on the internet or with data connections that are not secure. Only SNMP v3 supports encryption.

Understanding SNMP Sensors

To better understand and set up SNMP sensors, you might want to learn more about the principles of object identifiers (OID) and Management Information Base (MIB) files.


- For more information about this topic, see the Knowledge Base: [How do SNMP, MIBs, and OIDs work?](#)
- For an overview and details about all SNMP sensors, see section [List of Available Sensor Types](#) .
- For more information about which SNMP sensor is best for your monitoring setup, see section [Choosing the Right SNMP Sensor](#) .

SNMP Versions

PRTG supports three versions of the Simple Network Management Protocol (SNMP) protocol: version 1, version 2c, and version 3.

SNMP v1

This is the oldest and most basic version of SNMP.

- Pro: Supported by most SNMP-compatible devices.
- Con: Limited security because it only uses a simple password ([community string](#) ) and sends data in clear text (unencrypted). Because of this, you should only use it inside LANs behind firewalls, but not in WANs. Version 1 only supports 32-bit counters, which are not enough for high-load (gigabits/second) bandwidth monitoring.

SNMP v2c

This version adds 64-bit counters.

- Pro: Supports 64-bit counters to monitor bandwidth usage in networks with gigabits/second loads.
- Con: Limited security (same as with SNMP v1).

SNMP v3

This version adds authentication and encryption to SNMP.

- Pro: Offers user accounts and authentication for multiple users and optional data packet encryption to increase the available security, and has all advantages of Version 2c in addition.
- Con: Difficult to configure and higher overhead for the probe, which reduces the number of devices that you can monitor (see [here](#)⁴²⁸⁸ for more information).

SNMP Traps

Various devices can send SNMP trap messages to notify you of system events.

- PRTG supports SNMP v1 and SNMP v2c traps.
- The destination for SNMP traps is the IP address of the trap receiver, which is the IP of the probe system to which you add the [SNMP Trap Receiver sensor](#)³¹⁰⁷.

Which SNMP Version Should I Choose?

The SNMP version you should choose depends on your environment. Here are some guidelines:

- If your network is publicly accessible, you might want to use SNMP v3, which has encryption and secure access. However, security and encryption add overhead, which results in less performance.
- If your network is isolated or well-protected behind firewalls, the lower security level of SNMP v1 or SNMP v2c might be sufficient.
- From the perspective of monitoring with PRTG, SNMP v2c is preferable if you have a lot of devices to monitor. This lets you monitor more devices with a shorter scanning interval, and it supports 64-bit counters.

The most important aspect is to set the same SNMP version in the PRTG settings (for example, in the [root group settings](#)³⁶⁶) as you have configured in your target device. If you select an SNMP version that is not supported by the server or device that you want to monitor, you receive an error message. Unfortunately, these error messages, in most cases, do not explicitly point to the possibility that you are using the incorrect SNMP version. These messages provide minimum information only, such as [cannot connect](#). Similar errors occur when community strings, usernames, or passwords do not match.

■ For more information about basic requirements for SNMP monitoring, see this Knowledge Base article: [My SNMP sensors don't work. What can I do?](#)

SNMP Overload and Limitations of the SNMP System

SNMP v1 and v2 scale directly with the performance of the hardware and the speed of the network. In our labs, we can monitor 30,000 SNMP v1 sensors in a 60-second scanning interval with one PRTG core server (and local probe) plus two remote probes with 10,000 sensors each.

SNMP v3 has performance limitations because of the use of encryption. Furthermore, keep in mind that SNMP v3, unlike SNMP v1 and v2c, does not scale with more CPU power. Because of this limitation, PRTG can only handle a limited number of requests per second so that you can use only a limited number of sensors using SNMP v3.

Furthermore, the PRTG core server and probes should run on different computers. If you experience increased values in the [Interval Delay SNMP](#) or [Open Requests](#) channels of the [Probe Health sensor](#)²⁰⁸³ (values above 0 % indicate that the SNMP requests cannot be performed at the desired interval), you need to distribute the load among probes. SNMP v1 and v2 do not have this limitation.

If you run into SNMP overload problems, you have the following options:

- Increase the scanning interval of the SNMP v3 sensors.
- Distribute the SNMP v3 sensors among two or more probes.
- Evenly distribute the SNMP v3 sensors on your devices (about 10 to 100 sensors per device).
- Check if your target devices answer fast enough. Performance issues might also result from slow SNMP v3 devices.
- Switch to SNMP v1 or v2 if you can go without encryption.

What is the SNMP Community String?

The SNMP community string is similar to a user ID or password that allows access to the statistics of a device. PRTG sends the community string along with all SNMP requests. If the correct community string is provided, the device responds with the requested information. If the community string is incorrect, the device discards the request and does not respond.

- ① SNMP community strings are only used by devices that support SNMP v1 and SNMP v2c. SNMP v3 uses safer user name/password authentication, along with an encryption key.

By convention, most SNMP v1/v2c equipment ships with a read-only community string set to the value public. It is standard practice for network managers to change all the community strings to customized values during device setup.

More

KNOWLEDGE BASE

How do SNMP, MIBs, and OIDs work?

- <https://kb.paessler.com/en/topic/653>

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

The interface numbers on my switch keep changing. What can I do?

- <https://kb.paessler.com/en/topic/62217>

What can I check if SNMP and SSH sensors throw timeout and auth errors?

- <https://kb.paessler.com/en/topic/63794>

What can I monitor with the SNMP Custom Table sensor?

- <https://kb.paessler.com/en/topic/68539>

PAESSLER TOOLS

MIB Importer and SNMP Tester

- <https://www.paessler.com/tools>

■ PAESSLER WHITE PAPER

Introducing SNMP and Putting SNMP into Practice

- https://www.paessler.com/learn/whitepapers/introducing_snmp

▶ VIDEO TUTORIAL

SNMP basics

- <https://www.paessler.com/learn/videos/snmp-basics>

SNMP debugging


- <https://www.paessler.com/learn/videos/snmp-debugging>

12.1.1 Choosing the Right SNMP Sensor

The Simple Network Management Protocol (SNMP) generally requires little configuration once it is set up. Many network devices support it and you can monitor many parameters with it. PRTG provides you with various SNMP sensors. These sensors range from monitoring general parameters to very specific parameters. Choosing the right sensor for SNMP monitoring that gives you the desired hardware parameters is a decision that depends on several factors: the type of hardware you have, what values you want to monitor, and a few others.


Check SNMP Capability

Make sure that each device that you want to monitor supports SNMP, and that SNMP is enabled. You can find out whether a device supports SNMP by either going to the vendor's website or checking that it is enabled in the configuration of the device.

 If you are uncertain whether SNMP is enabled on the target device and works, we recommend that you try [SNMP Tester](#). You can scan for uptime to perform a basic check for SNMP availability of the target device.

Setup Checklist

1. Enable SNMP on the device.
2. In the security settings of the device, allow SNMP access for the PRTG core server system.
3. Allow User Datagram Protocol (UDP) packages to be sent bidirectionally from the PRTG core server to the device.
4. SNMP requires the use of UDP ports >1023 to the PRTG client side. This is important for your firewall settings.
5. Ensure that the firmware of the device is up to date.
6. Select the appropriate SNMP protocol.

 It is important to know which SNMP version you have to select, because if it is not supported by the server or device you want to monitor, you receive an error message.

 For more information, see the Knowledge Base: [My SNMP sensors don't work. What can I do?](#)



SNMP Monitoring Overview

Vendor-specific SNMP Sensors

PRTG offers many vendor-specific SNMP sensors for some common vendors. These sensors are programmed to match the respective end devices. There are also workarounds for known vendor implementation issues, for example, if SNMP has not been fully implemented on an end device according to the RFCs. Here, our vendor-specific sensors still automatically receive the most important values.

Supported Vendors

- APC
- Buffalo
- Cisco
- Dell
- Fujitsu
- HP







- HPE
- IBM
- Jakarta
- Juniper
- LenovoEMC
- NetApp
- Nutanix
- Poseidon
- QNAP
- SonicWall
- Synology

■ For more information, see the Knowledge Base: [What SNMP sensors does PRTG offer?](#)

Generic SNMP Sensors


PRTG offers several generic sensors that work with almost every device that supports SNMP, the corresponding Management Information Base (MIB) file and OIDs, and it correctly implements the respective RFCs. The standard SNMP libraries of PRTG include predefined, common values for the generic SNMP sensors. You can monitor the following parameters with the generic sensors.

Sensor	Description
SNMP CPU Load sensor <small>2442</small>	The SNMP CPU Load sensor monitors the system load via the Simple Network Management Protocol (SNMP).
SNMP Disk Free sensor <small>3154</small>	The SNMP Disk Free sensor monitors the free disk space on a logical disk via the Simple Network Management Protocol (SNMP).
SNMP Hardware Status sensor <small>2609</small>	The SNMP Hardware Status sensor monitors the status of a server's hardware component via the Simple Network Management Protocol (SNMP).
SNMP Memory sensor <small>2855</small>	The SNMP Memory sensor monitors the memory usage of a system via the Simple Network Management Protocol (SNMP).
SNMP Printer sensor <small>2980</small>	The SNMP Printer sensor monitors various types of printers via the Simple Network Management Protocol (SNMP).

Sensor	Description
SNMP RMON sensor 	<p>The SNMP RMON sensor monitors traffic on a device using the Remote Monitoring (RMON) standard via the Simple Network Management Protocol (SNMP).</p> <p> You can create it on an SNMP-compatible device that provides traffic data via RMON. Depending on the data that the device returns, PRTG displays traffic data for each port in different channels, which allows a detailed analysis. If available, the sensor queries 64-bit counters.</p>
SNMP System Uptime sensor 	<p>The SNMP System Uptime sensor monitors the uptime of a device via the Simple Network Management Protocol (SNMP).</p>
SNMP Traffic sensor 	<p>The SNMP Traffic sensor monitors traffic on a device via the Simple Network Management Protocol (SNMP).</p> <p> You can create the sensor on a device that provides traffic data.</p>
SNMP Trap Receiver sensor 	<p>The SNMP Trap Receiver sensor receives and analyzes Simple Network Management Protocol (SNMP) traps.</p>

Operating System-based SNMP Sensors

PRTG also offers several operating system-based SNMP sensors that extend your SNMP monitoring. You can monitor the following parameters with these sensors.

Sensor	Description
SNMP Linux Disk Free sensor 	<p>The SNMP Linux Disk Free sensor monitors the free space on disks of a Linux/Unix system via the Simple Network Management Protocol (SNMP).</p>
SNMP Linux Load Average sensor 	<p>The SNMP Linux Load Average sensor monitors the system load average of a Linux/Unix system via the Simple Network Management Protocol (SNMP).</p>
SNMP Linux Meminfo sensor 	<p>The SNMP Linux Meminfo sensor monitors the memory usage of a Linux/Unix system via the Simple Network Management Protocol (SNMP).</p>
SNMP Linux Physical Disk sensor 	<p>The SNMP Linux Physical Disk sensor monitors the input/output (I/O) on disks of a Linux/Unix system via the Simple Network Management Protocol (SNMP).</p>

Sensor	Description
SNMP Windows Service sensor <small>3123</small>	The SNMP Windows Service sensor monitors a Windows service via the Simple Network Management Protocol (SNMP).

Custom SNMP Sensors

PRTG also offers custom SNMP sensors. The monitoring capabilities of these sensors extend the scope of the generic sensors. With custom sensors, you can show certain values that are not included in the standard libraries of PRTG. With these sensors, you can monitor most devices that support SNMP and for which PRTG does not have native sensors. Basically, you only need to find out the required OIDs for the desired device readings, for example, in the vendor's documentation for your hardware device.

■ For more information, see the Knowledge Base: [How do I find out which OID I need for an SNMP Custom sensor?](#)

Sensor	Description
SNMP Custom sensor <small>2453</small>	<p>The SNMP Custom sensor monitors a single parameter that is returned by a specific object identifier (OID) via the Simple Network Management Protocol (SNMP).</p> <p>Value types include the expected numeric type of the results at the specified OID: You can choose from</p> <ul style="list-style-type: none"> ▪ Absolute (unsigned integer): for integer values such as 10 or 120 ▪ Absolute (signed integer): for integer values such as -12 or 120 (negative values supported) ▪ Absolute (float): for float values such as -5.80 or 8.23 (with decimal places) ▪ Delta (counter): PRTG calculates the difference between the previous and the current value. <p>▶ For more information, see this video tutorial SNMP Custom sensor and SNMP Custom Library sensor on our website.</p>
SNMP Custom Advanced sensor <small>2464</small>	<p>The SNMP Custom Advanced sensor monitors numeric values returned for object identifiers (OID) via the Simple Network Management Protocol (SNMP).</p> <p>This sensor monitors very similarly to the regular SNMP Custom sensor, with the advantage of being able to poll up to 10 specific OIDs with a single sensor. For each OID, you can define a name, OID, expected type, and the unit to be displayed. The possible value types are the same as with the SNMP Custom sensor.</p>

Sensor	Description
SNMP Custom String sensor ²⁴⁷⁵	<p>The SNMP Custom String sensor monitors a string returned by a specific object identifier (OID) via the Simple Network Management Protocol (SNMP). It can check for keywords. If you want to set limits to the channel value, you can also extract a numeric value contained in the string.</p> <p>Hexadecimal-encoded strings can also be decoded as MAC addresses or IP addresses. The sensor can check for keywords via plain text or regular expression (regex) or you can use a regex to extract a numeric value from the string that can be evaluated later for additional alerts.</p> <ul style="list-style-type: none"> See section Number Extraction with Regular Expression ²⁴⁸⁷ for an example.
SNMP Custom String Lookup sensor ²⁴⁸⁸	<p>The SNMP Custom String Lookup sensor monitors a string that a specific object identifier (OID) returns via the Simple Network Management Protocol (SNMP). It can map the string directly to a sensor status ¹⁹⁷ by using a defined lookup file ⁴⁴⁸⁵.</p> <ul style="list-style-type: none"> Basically, this sensor does a "reverse lookup". You have to define all potential return strings in the lookup file as text values, each in one lookup entry. Graphs and data tables show the value to which the string is mapped, usually an integer (lookup type ⁴⁴⁸³ SingleInt). For more information, see section Example ²⁴⁸⁸.
SNMP Custom Table sensor ²⁵⁰⁰	<p>The SNMP Custom Table sensor monitors entries from a table that is provided via the Simple Network Management Protocol (SNMP). You can create one new sensor per table row. For each sensor, you can define up to ten channels. Each channel shows the value of one defined table column.</p> <p>Vendors use tables when there are multiple instances of the same object (for example, memory, disks). The sensor recognizes a table via a meta-scan and lets you configure the indexes (interfaces) that you want to monitor.</p> <ul style="list-style-type: none"> For more details, see the Knowledge Base: What can I monitor with the SNMP Custom Table sensor?
SNMP Library sensor ²⁷⁹⁷	<p>The SNMP Library sensor uses a Management Information Base (MIB) file to create sensors that monitor a device via the Simple Network Management Protocol (SNMP).</p>

More

■ KNOWLEDGE BASE

My SNMP sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/46863>

What SNMP sensors does PRTG offer?

- <https://kb.paessler.com/en/topic/75522>

How do I find out which OID I need for an SNMP Custom sensor?

- <https://kb.paessler.com/en/topic/903>

What can I monitor with the SNMP Custom Table sensor?

- <https://kb.paessler.com/en/topic/68539>

How do SNMP, MIBs, and OIDs work?

- <https://kb.paessler.com/en/topic/653>

How can I import my MIB files into PRTG?

- <https://kb.paessler.com/en/topic/733>

Can't find a sensor for my device in PRTG but I believe it supports SNMP. How to proceed?

- <https://kb.paessler.com/en/topic/65638>

VIDEO TUTORIAL

SNMP Custom sensor and SNMP Custom Library sensor

- <https://www.paessler.com/learn/videos/snmp-custom-and-library-sensor>

12.2 Monitoring via WMI

You can monitor Windows systems via [Windows Management Instrumentation \(WMI\)](#)^[4298] and [Windows performance counters](#)^[4298]. WMI is the Microsoft base technology for monitoring and managing Windows-based systems. PRTG uses this technology to access data of various Windows configuration parameters and status values. However, sensors using the WMI protocol generally have a high impact on system performance. In addition to strict WMI sensors, there are sensors that can use performance counters to monitor Windows systems.

To monitor via WMI and performance counters, it is usually sufficient to provide Credentials for Windows Systems in PRTG. However, monitoring via WMI is not always trivial and often causes issues.

■ If you run into issues, see the Knowledge Base: [My WMI sensors don't work. What can I do?](#)

It is also possible to use Simple Network Management Protocol (SNMP) for Windows devices. The same information is often available using any of these protocols. From a performance perspective, the preference is SNMP, then WMI or performance counters.

How WMI Works

WMI allows access to the data of many Windows configuration parameters, as well as system status values. Access can be local or remote via a network connection. WMI is based on [COM](#) and [DCOM](#) and is integrated in Windows versions as of Windows Server 2000. PRTG officially supports WMI for Windows 7 or later.

ⓘ WoW64 (Windows 32-bit on Windows 64-bit) must be installed on target systems that run Windows Server 2016. This allows 32-bit applications to be run on 64-bit systems. This is necessary because the PRTG probe service only runs with 32-bit support. Without it, WMI sensors do not work.

To monitor remote machines, WMI sensors need Active Directory account credentials to have access to the WMI interface. You can enter these credentials in the settings of the parent device or group, or in the [root group](#)^[368]. The sensor then inherits these settings.

ⓘ Sensors using the WMI protocol generally have a high impact on the system performance. Try to stay below 200 WMI sensors per [probe](#)^[130]. Above this number, consider using [remote probes](#)^[4503] for load balancing.

■ For an overview and details about all WMI sensors, see section [List of Available Sensor Types](#)^[4627].



Monitoring Windows Systems: Performance Counters

Besides sensors that can monitor Windows systems only via WMI, PRTG provides sensors that can use a [hybrid](#) approach. If you choose the hybrid approach, these sensors first try to query data via Windows performance counters using [Remote Registry Service](#). These Windows sensors use WMI as a fallback if performance counters are not available or cannot be read out. When running in fallback mode, PRTG tries to connect to performance counters again after 24 hours. You can change the Preferred Data Source in the Windows Compatibility Options in the [device settings](#)^[446].

ⓘ You can identify these hybrid sensors by looking at their categories, for example, in the [Add Sensor](#)^[367] dialog. Search directly for "windows" and select "Performance Counters" as Technology Used. Among them are various sensors with "Windows" in the name, as well as some Hyper-V sensors.

Limitations of WMI on Windows Server 2008 (R1)

You should be aware that the performance of WMI-based monitoring is drastically limited when the monitoring station or the monitored client runs on Windows Server 2008 (R1). When it comes to network monitoring via WMI, Windows Server 2008 R2 is many times faster than Windows Server 2008 (R1).

-  These are not limitations of PRTG. They arise from the WMI functionality built into the Windows operating systems mentioned.
-  These limitations also apply to Windows Vista, which is no longer officially supported. You can still monitor machines that run Windows Vista, but the PRTG core server and probes are no longer supported on this operating system.

The results of our tests are:

- On Windows Server 2008 R2 or Windows 7 (and on later Windows versions), you can run most WMI sensors if you provide optimal conditions, such as running the PRTG core server system and the target systems exclusively under Windows Server 2008 R2 and being located within the same LAN segment. Actual performance can be significantly lower depending on the network topology and the WMI health of the target systems. We have seen configurations that could not go beyond 500 sensors (and even less).
- On Windows 2008 (R1), you can run about 300 WMI sensors with a 1-minute scanning interval.
- The more Windows 2008/Windows 7 client systems you have in your network, the more the WMI monitoring performance is affected.
- System performance (CPU, memory, etc.) of virtualization does not strongly affect WMI monitoring performance.

If you want to use WMI for network monitoring of more than 20 or 30 systems, consider the following rules:

- Do not use Windows 2008 (R1) as monitoring stations for WMI-based network monitoring.
- Use Windows Server 2008 R2 (or later Windows versions) for WMI-based network monitoring instead.
- Consider setting up remote probes for the WMI monitoring. You still get far better WMI monitoring performance with a remote probe on a virtual machine (VM) running Windows Server 2008 R2 than on any physical system running Windows 2008.
- Consider switching to SNMP-based monitoring for large networks. Using SNMP, you can monitor 10 times as many objects than with WMI on the same hardware.

More

KNOWLEDGE BASE

My WMI sensors don't work. What can I do?

- <https://kb.paessler.com/en/topic/1043>

Which WQL queries are used by the PRTG WMI sensors?

- <https://kb.paessler.com/en/topic/8783>

Why do I receive the sensor error message 'Connection could not be established (code: PE015)'?

- <https://kb.paessler.com/en/topic/81843>

 VIDEO TUTORIAL

Bandwidth monitoring with SNMP and WMI

- <https://www.paessler.com/learn/videos/bandwidth-monitoring-basic>

 PAESSLER TOOLS

WMI Tester

- <https://www.paessler.com/tools/wmitester>

12.3 Monitoring via SSH

Monitoring via Secure Shell (SSH) enables you to gather performance and system data from many Linux and Unix distributions, as well as from certain macOS X systems. If your system is supported, this monitoring technology works without any additional software on the target systems.

How Monitoring via SSH Works

To monitor remote machines via SSH, PRTG needs the credentials (preferably root access) of the devices. If you use SSH sensors, you can enter the necessary credentials in the [settings](#)²²⁶ of the parent device or group, or in the root group, in the Credentials for Linux/Solaris/macOS (SSH/WBEM) Systems section. The sensors then inherit these settings by default.

With each scanning interval, PRTG logs in to your devices and queries data by executing specific commands.

■ For an overview and details about all SSH sensors, see section [List of Available Sensor Types](#)⁴⁶¹².

Limitations When Using SSH Monitoring

Because of the plurality of Linux/Unix derivatives, SSH sensors cannot support all distributions on the market. Also, only certain macOS systems are supported.

■ For a list of successfully tested distributions, see the Knowledge Base: [Which Linux or macOS distributions are supported by the Linux/Unix sensors \(SSH, SNMP\)?](#)

Authentication via SSH Private Key

PRTG supports authentication via password or via private key.

When you use a private key, ensure the following:

- Provide the key in [OpenSSH](#) RSA format.
- The key may not be encrypted. PRTG does not support password-protected keys.
- The key must be provided as an [RSA](#) key, you cannot use [DSA](#) keys.

When you provide an unencrypted RSA private key in OpenSSH RSA format, copy the entire key, including the

```
-----BEGIN RSA PRIVATE KEY-----
```

and

```
-----END RSA PRIVATE KEY-----
```

lines, into the designated text field in PRTG and Save your settings. Once you have pasted in and saved the private key, PRTG shows it as

```
*****
```

Make sure that a corresponding public key exists on the target device.

- For a detailed description on how to convert and use an SSH key, see the Knowledge Base: [How can I use private keys for my SSH sensors with PRTG?](#)

More

■ KNOWLEDGE BASE

Which Linux or macOS distributions are supported by the Linux/Unix sensors (SSH, SNMP)?

- <https://kb.paessler.com/en/topic/6733>

How can I use private keys for my SSH sensors with PRTG?

- <https://kb.paessler.com/en/topic/32883>

How do I enable SSH on my macOS system?

- <https://kb.paessler.com/en/topic/33113>

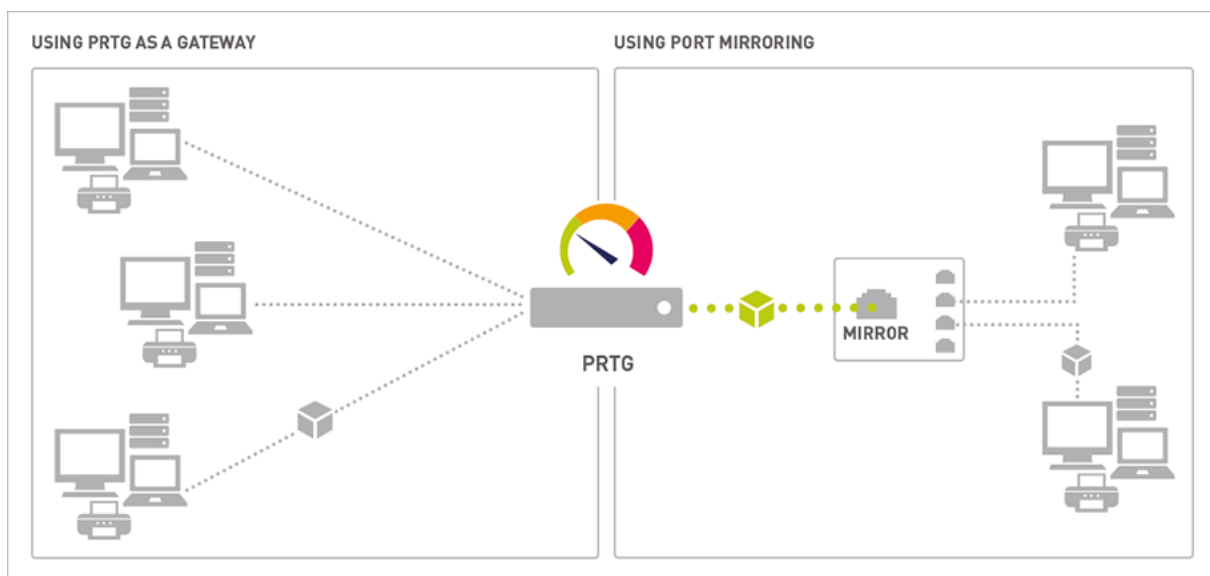
12.4 Monitoring Bandwidth via Packet Sniffing

Packet sniffing comes into consideration if your network devices do not support the Simple Network Management Protocol (SNMP) or xFlow (NetFlow, jFlow, sFlow, IPFIX) to measure bandwidth usage and if you need to differentiate the bandwidth usage by network protocol and/or IP addresses.

❶ Packet Sniffer sensors support [Toplists](#)⁴⁰⁰² (for example, Top Talkers or Top Connections).

How Packet Sniffing Works

If you need to know what applications or IP addresses cause the traffic in your network, you can use a packet sniffer. A packet sniffer looks at every single data package that travels through your network for accounting purposes.



Monitoring with PRTG via Packet Sniffer Sensors

PRTG can analyze the packets that pass the network card of a PC or you can connect it to the monitoring port of a switch. To calculate bandwidth usage, PRTG inspects all network data packets either passing the PC's network card (shown on the left side in the schema above) or the data packages that a monitoring port of a switch (right side) sends with its built-in packet sniffer. Using remote probes, you can set up packet sniffers anywhere in your network.

❶ Packet Sniffer sensors use the [npcap library](#) to monitor traffic.

■ For more information, see section [Add Remote Probe](#)⁴⁵⁰¹.

[Comparing](#)⁴³⁰⁸ the four bandwidth monitoring technologies that PRTG provides (SNMP, Windows Management Instrumentation (WMI), xFlow, and packet sniffing), packet sniffing creates the most CPU and network load, so you should only use it in small to medium-sized networks, on dedicated computers for larger networks, or for individual computers.

Reasons to Choose Packet Sniffing



It is important to understand that the packet sniffer can only access and inspect data packages that actually flow through the network interfaces of the probe system. This is fine if you only want to monitor the traffic of this machine (for example, your web server). In switched networks, only the traffic for a specific machine is sent to each machine's network card, so PRTG usually cannot discern the traffic of the other machines in the network.

If you also want to monitor the traffic of other devices in your network, you must use a switch that offers a monitoring port or port mirroring configuration (Cisco calls it Switched Port Analyzer (SPAN)). In this case, the switch sends a copy to the monitoring port of all data packages traveling through the switch. As soon as you connect one of the probe system's network cards to the switch's monitoring port, PRTG can analyze the entire traffic that passes through the switch.

An alternative is to set up the PRTG core server system as the gateway for all other computers in the network.


Set Up Packet Sniffer Sensors

Find details on how to set up the different xFlow sensors in the following sections:

- [Packet Sniffer sensor](#)  1956
- [Packet Sniffer \(Custom\) sensor](#)  1972

Header-Based Packet Sniffing

For packet sniffing, PRTG looks at the IP addresses and ports of source and destination to assess the protocol. This is a very fast method and saves system resources.

 Sometimes, this method is not fully accurate. For example, it is not possible to identify HTTP traffic on ports other than 80, 8080, and 443 as HTTP. HTTP traffic on non-standard ports would not be accounted as such.

More

KNOWLEDGE BASE

How can I change the default groups and channels for xFlow and Packet Sniffer sensors?

- <https://kb.paessler.com/en/topic/60203>

12.5 Monitoring Bandwidth via xFlows

Using xFlow (NetFlow, jFlow, sFlow, IPFIX) protocols, you can monitor the bandwidth usage of all packets going through a device. In PRTG, you can view [Toplists](#)^[4002] for all xFlow sensors.

xFlows are monitoring data pushed from network devices to PRTG. You can use them to monitor where and how much data is traveling to and from. This way, they determine which machine, protocol, or user is consuming bandwidth. PRTG supports the following xFlow types:

- NetFlow v5/v9 and IPFIX: Originally introduced by Cisco and supported by several vendors.
- jFlow: Traffic sampling technology introduced by Juniper networks.
- sFlow: Short for [sampled flow](#), introduced by HP. sFlow uses statistical sampling of the traffic at defined intervals to achieve scalability for high volume interfaces.

You can also use [packet sniffing](#)^[4305] for bandwidth monitoring if your hardware does not support any of these xFlow versions.

How xFlow Monitoring works

You can measure bandwidth usage by IP address or by application in a network, using one of the xFlow protocols. They are the best choice especially for networks with high traffic (connections with hundreds of megabits or gigabits).

For xFlow monitoring, the router gathers bandwidth usage data (flows), aggregates it, and sends information about it to PRTG using User Datagram Protocol (UDP) packets. When you use sampling (mandatory for sFlow), only information about every n-th packet is sent to PRTG, which reduces CPU load a lot. Because the switch already performs an aggregation of traffic data beforehand, the flow of data to PRTG is much smaller than the monitored traffic. This makes xFlow the ideal option for high traffic networks that need to differentiate the bandwidth usage by network protocol and/or IP addresses.

NetFlow and IPFIX Monitoring

The NetFlow (and IPFIX) protocol is mainly used by Cisco devices. Once configured, the router sends a NetFlow or IPFIX packet for each data flow to the monitoring system running on a probe. You can filter and evaluate the data in PRTG. Different NetFlow and IPFIX sensors are available: The basic sensors offer predefined channel definitions, the custom variants enable you to define your own channels.

The advantage of using NetFlow or IPFIX:

- Generates little CPU load on the router itself (according to Cisco, 10,000 active flows create about 7% additional CPU load; 45,000 active flows account for about 20% additional CPU load).
- Generates less CPU load on the PRTG core server system compared to Packet Sniffer sensors.

i You must enable NetFlow or IPFIX export on the device that you want to monitor. The device must send a flow data stream to the IP address of the probe system on which you set up the NetFlow or IPFIX sensor.

i You can monitor Juniper jFlow with the corresponding sensors as well. Basically they are adjusted NetFlow v5 sensors.

i NetFlow Lite monitoring is possible using the Sampling Mode of the [NetFlow v9 sensor](#)¹⁸⁵⁶ or of the [NetFlow v9 \(Custom\) sensor](#)¹⁸⁷³. You can turn on the sampling mode and define a suitable Sampling Rate in the sensor settings. Note that NetFlow Lite monitoring might not work in every case even with active sampling mode.

sFlow Monitoring

sFlow works similar to NetFlow monitoring. The router sends data flow packets to the monitoring system running on a probe. The most obvious difference between the two xFlow protocols: With sFlow, not all of the traffic is analyzed, but only every n-th packet.

The advantage is clear: There is less data to analyze, there is less CPU load needed, and less monitoring traffic is generated. Nevertheless, you can get a good insight into your network bandwidth usage.

i PRTG supports sFlow v5.

Set Up xFlow Sensors

Find details on how to set up the different xFlow sensors in the following sections:

- [NetFlow v5 sensor](#)¹⁸²⁴
- [NetFlow v5 \(Custom\) sensor](#)¹⁸⁴¹
- [NetFlow v9 sensor](#)¹⁸⁵⁶
- [NetFlow v9 \(Custom\) sensor](#)¹⁸⁷³
- [IPFIX sensor](#)¹⁴⁵⁸
- [IPFIX \(Custom\) sensor](#)¹⁴⁷⁵
- [sFlow sensor](#)²¹⁹⁶
- [sFlow \(Custom\) sensor](#)²²¹³
- [jFlow v5 sensor](#)¹⁵⁰⁴
- [jFlow v5 \(Custom\) sensor](#)

Limitations

For example, with a dual core, 2.5 Ghz hardware system, you can process about 100,000 flows per second for one xFlow stream. Using sampling, the number of actual flows can be much higher. When using complex filters, the value can be much lower. For example, with a router sending about 2,000 flows/second (which corresponds to mixed traffic at gigabit/second level without sampling) you can expect to configure up to 50 xFlow sensors operating properly.

PRTG internally monitors its own xFlow processing. You can see decreased values in the Health channels of the [Core Health](#)⁷⁶⁰ and [Probe Health](#)²⁰⁶³ sensors as soon as xFlow packets are not processed because of an overload (you find these sensors on the local probe device).

If you experience an overload, consider using sampling or setting up multiple probes and distributing the xFlow streams to them. We recommend that you do not add more than 50 xFlow sensors per probe.

- ① IPv6 flows are supported by NetFlow v9 sensors and IPFIX sensors, other xFlow sensors only support IPv4.

More

■ KNOWLEDGE BASE

Can I add custom channels to standard Packet Sniffer and NetFlow sensors?

- <https://kb.paessler.com/en/topic/2143>

What filter rules can be used for custom Packet Sniffing, xFlow, or IPFIX sensors?

- <https://kb.paessler.com/en/topic/483>

How do the channel definitions for custom Packet Sniffing, xFlow, and IPFIX sensors work?

- <https://kb.paessler.com/en/topic/473>

Does my Cisco device (router/switch) support NetFlow export?

- <https://kb.paessler.com/en/topic/5333>

Do you have any configuration tips for Cisco routers and PRTG?

- <https://kb.paessler.com/en/topic/563>

How do I monitor Cisco ASA firewalls using NetFlow 9 and PRTG?

- <https://kb.paessler.com/en/topic/1423>

How can I change the default groups and channels for xFlow and Packet Sniffer sensors?

- <https://kb.paessler.com/en/topic/60203>

What is the Active Flow Timeout in Flow sensors?

- <https://kb.paessler.com/en/topic/66485>

✂ PAESSLER TOOLS

NetFlow Generator and NetFlow Tester

- <https://www.paessler.com/tools>

12.6 Bandwidth Monitoring Comparison

The following table shows the differences between the four bandwidth monitoring methods available in PRTG:

Category	WMI <small>4298</small>	SNMP <small>4286</small>	Packet Sniffer <small>4303</small>	xFlow (IPFIX, NetFlow, sFlow, jFlow) <small>4305</small>
Setup	Medium	Low	Low to high (depending on filter rules used)	Can be high (for example, the switch must be configured)
Traffic filtering	No	No	Yes	Yes
Differentiate bandwidth usage by protocol or IPs	No	No	Yes	Yes
PRTG can show Toplists (Top Talker, Top Connections, Top Protocols, custom)	No	No	Yes	Yes
Filter bandwidth usage by IP address	No	No	Yes	Yes
Filter bandwidth usage by MAC address	No	No	Yes	No
Filter bandwidth usage by physical network port	Yes	Yes	No	No
Monitor network parameters other than bandwidth usage	Yes	Yes	No	No
CPU load on the PRTG core server system	Medium	Low	Higher, depends on the amount of traffic	Higher, depends on the amount of traffic
Excess bandwidth usage of monitoring	Small	Small	None (except when monitoring switch ports are used)	Depends on the traffic

More

 KNOWLEDGE BASE

Should I use SNMP, xFlow (IPFIX/NetFlow/sFlow) or Packet Sniffing for my monitoring?

- <https://kb.paessler.com/en/topic/923>

How do I differentiate between excessive bandwidth usage with PRTG?

- <https://kb.paessler.com/en/topic/2923>

12.7 Monitoring Quality of Service and VoIP

PRTG can monitor the Quality of Service (QoS) in a network with dedicated QoS sensors, as well as Cisco IP service level agreement (SLA) and Cisco Class Based Quality of Service (CBQoS). Slight variations in network parameters like jitter, packet loss, or packet delay variation (PDV) usually have only little effect on Transmission Control Protocol (TCP) based services (for example, HTTP and Simple Mail Transfer Protocol (SMTP)). But for User Datagram Protocol (UDP) based services like Voice over IP (VoIP) and video streaming, a steady stream of data packets is crucial. The sound quality of a VoIP call drops noticeably when UDP packets are not received in time, or if packets are lost or in the wrong order.

As a rule of thumb for good quality of service (from a VoIP perspective), it is important to have low measurements for jitter (less than 20 to 50 ms) and PDV (less than 100 ms), and preferably **zero** measurements for packet loss, duplicated packets, or packets in wrong order.

For QoS measurements, four sensors are available:

Sensor	Description
QoS (Quality of Service) One Way sensor <small>2105</small>	Parameters regarding the quality of a network connection between two probes
QoS (Quality of Service) Round Trip sensor <small>2116</small>	Parameters regarding the quality of a network connection between a probe and a target device at the endpoint of the connection. Traffic is measured bidirectionally.
Cisco IP SLA sensor <small>658</small>	VoIP network parameters using IP SLAs from Cisco via SNMP
SNMP Cisco CBQoS sensor <small>2372</small>	VoIP network parameters using Cisco's CBQoS via SNMP

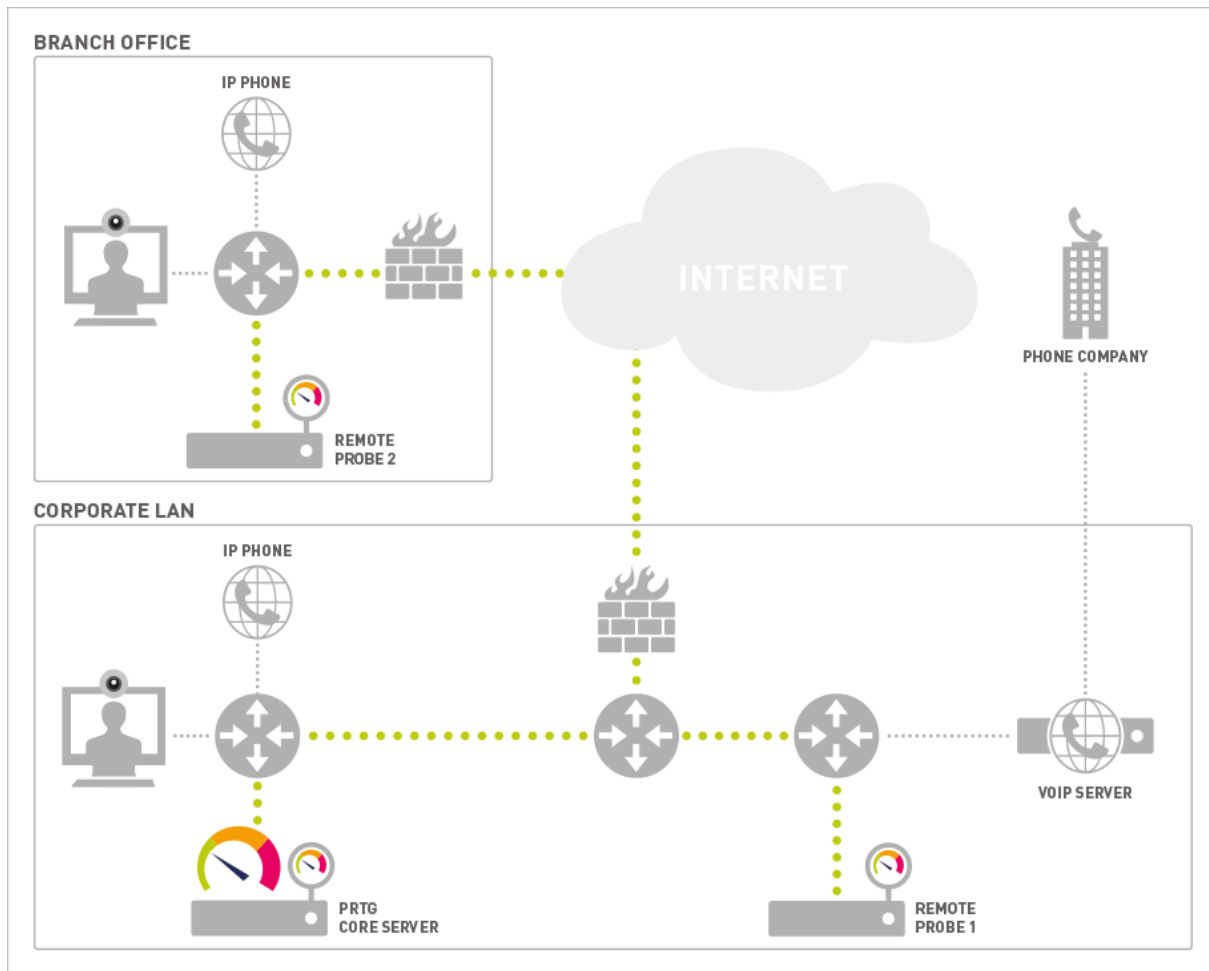
QoS (Quality of Service) Sensors

The QoS sensors monitor the quality of a network connection by measuring the following parameters:

- Jitter in ms according to RFC 3550
- PDV in ms according to RFC 3393
- Lost packets in %
- Out-of-order packets in %
- Duplicated packets in %

The QoS sensors measure the quality of service by sending UDP packets between two probes. This means that you can test any network connection in your network by placing a [remote probe](#) 4501 on (or near) each end of the connection and measuring the connection quality between them. This way, you can find network issues that can affect VoIP sound quality or cause video streaming issues.

You can also use the QoS (Quality of Service) Round Trip sensor without installing a remote probe at the connection endpoint. For details about the PRTG QoS Reflector, see the Knowledge Base: [How can I monitor QoS round trips without using remote probes?](#)



Monitoring Quality of Service with PRTG

The measurements for QoS monitoring are taken between two probes. So the first step is to place two PCs running a remote probe on (or near) both ends of the connection that you want to monitor. As an alternative, the local probe on the PRTG core server system can also be used as one end, or you can use the PRTG QoS Reflector (see the [Knowledge Base](#)) to bounce the packets when monitoring QoS roundtrips. If any firewalls, packet filters, or network address translation (NAT) systems are used, you must configure them as necessary so that the UDP packets can reach the target probe.

Create a new QoS sensor on a probe device, or, if you use the QoS (Quality of Service) Round Trip sensor, on any device. With the settings for the number and for the size of the packets, you can configure the test data stream. 1,000 packets of 172 bytes each is a good start, but if your applications use larger packets, you might want to enter other values here. Try to configure the test streams with parameters similar to that of the UDP services you are using across this connection.

Find details about settings in the sections [QoS \(Quality of Service\) One Way sensor](#)²¹⁰⁵ and [QoS \(Quality of Service\) Round Trip sensor](#)²¹¹⁶.

Cisco IP SLA Sensor

Wikipedia describes IP SLA as [a feature included in the Cisco IOS Software that can allow administrators the ability to Analyze IP Service Levels for IP applications and services. IP SLA uses active traffic-monitoring technology to monitor continuous traffic on the network. This is a reliable method in measuring over head network performance.](#) IP SLA is mostly used to monitor the sound quality of VoIP traffic.

If you have not done so already, add a device that represents the Cisco device that you want to monitor. Then create a new Cisco IP SLA sensor on this device.

■ Find details about settings in section [Cisco IP SLA sensor](#)^[658].

This feature is only available in the more expensive Cisco devices. If you do not have IP SLA-capable routers and switches, you can still get similar information with QoS sensors (see [above](#)^[4310]) that do not require any special hardware.

PRTG monitors the following parameters: Impairment Calculated Planning Impairment Factor (ICPIF), Mean Opinion Score (MOS), Average Jitter, Packets Lost, Packets Out Of Sequence, Packets Late, Average Round Trip Time (RTT), Domain Name System (DNS) RTT, TCP RTT, Transaction RTT.

Two of these parameters are especially interesting for VoIP: MOS and ICPIF.

SNMP Cisco CBQoS Sensor

Cisco CBQoS provides information about QoS of Cisco network devices that support the [Modular QoS Command-Line Interface \(MQC\)](#). With Class Based QoS, you can obtain monitoring data that includes summary counts and rates by traffic class before and after the enforcement of QoS policies, according to Cisco's CBQoS Management Information Base (MIB) definition.

PRTG determines CBQoS data via SNMP. The corresponding sensor is available as of PRTG 13.x.5 or later. CBQoS is available in Cisco IOS by default as of version 12.4(4)T.

To monitor CBQoS, add a device to PRTG for the Cisco device that you want to monitor. Then create a new SNMP Cisco CBQoS sensor on this device.

■ See section [SNMP Cisco CBQoS sensor](#)^[2372] for more details.

This sensor supports the following CBQoS classes:

- Class Map: statistical data about class maps, such as pre-policy and post-policy packets and sizes, drop packets and size, as well as no-buffer drop packets
- Match Statement: statistical data about match statement specific information, such as pre-policy packets and size
- Queueing: statistical data about queueing actions, such as current and maximum queue depth, drop packets, and drop size

You can select the desired CBQoS entries that you want to monitor while creating the sensor. The available entries are specified with their particular connections, their descriptions, and class types.

Voice over IP

For MOS measurements, Cisco conducted a panel test where a wide range of listeners judged the quality of voice samples sent using particular codecs, on a scale of 1 (poor quality) to 5 (excellent quality). The Cisco device calculates the corresponding value for the network connection based on network parameter measurements like jitter and packet loss.

■ The Cisco IP SLA sensor reads out the MOS directly from the Cisco device. For the QoS (Quality of Service) One Way sensor and the QoS (Quality of Service) Round Trip sensor, PRTG calculates the MOS by itself. For details, see the Knowledge Base: [How does PRTG calculate the MOS score for QoS sensors?](#)

The values and their meanings are:

MOS	Quality	Expected Quality Impairment
5	Excellent	Imperceptible
4	Good	Perceptible, but not annoying
3	Fair	Slightly annoying
2	Poor	Annoying
1	Bad	Very annoying

The second interesting parameter ICPIF is the sum of measured impairment factors minus a user-defined access Advantage Factor that is intended to represent the user's expectations, based on how the call was placed (for example, a mobile call versus a land-line call) (quoted from the Cisco website).

Upper Limit for ICPIF	VoIP Call Communication Quality
5	Very good
10	Good
20	Adequate
30	Limiting case
45	Exceptional limiting case
55	Customers likely to react strongly (complaints, change of network operator)

More

■ KNOWLEDGE BASE

How can I monitor QoS round trips without using remote probes?

- <https://kb.paessler.com/en/topic/61176>

How does PRTG calculate the MOS score for QoS sensors?

- <https://kb.paessler.com/en/topic/59491>

■ PAESSLER WEBSITE

How to connect PRTG through a firewall in 4 steps

- <https://www.paessler.com/support/how-to/firewall>

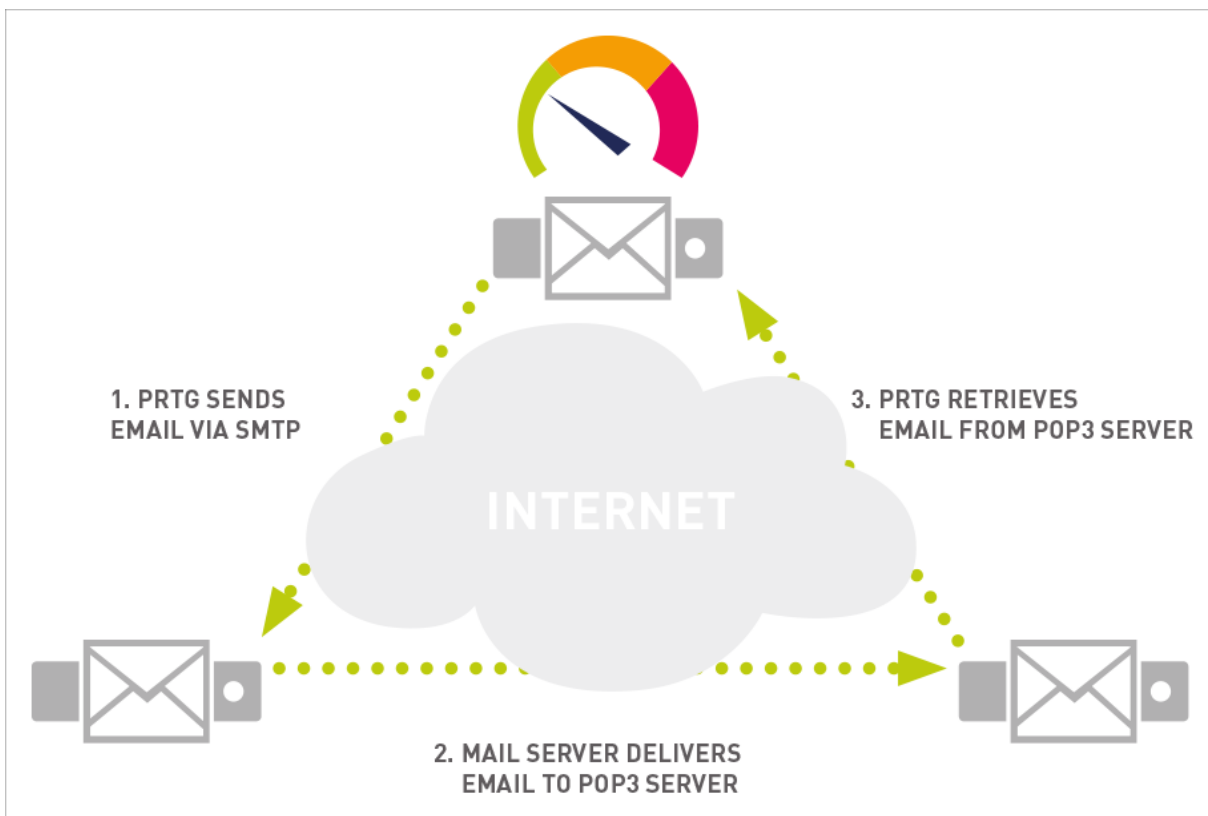
12.8 Monitoring Email Round Trip

Email Round Trip sensors ensure the end-to-end delivery of emails and let you monitor the availability and the performance of a complete email delivery process. There are two sensors for this task:

- [SMTP&POP3 Round Trip sensor](#) 
- [SMTP&IMAP Round Trip sensor](#) 

Both initially deliver an email to a mail server using the Simple Mail Transfer Protocol (SMTP). Afterward, the receiving mailbox is scanned using Post Office Protocol version 3 (POP3) or Internet Message Access Protocol (IMAP) until the email arrives. The test email contains a unique code in the topic that is used to identify the email, such as [PRTG Roundtrip Mail: {6D136420-5A3E-46CF-871A-1DAF0C4F3D5D}](#)

When PRTG successfully receives an email in this email round trip cycle, it marks the respective message for deletion on the mail server. Usually, a mail server then deletes this email. For best performance, we recommend that you use dedicated email accounts for email round trip sensors.



Monitoring an Email Round Trip

In the scenario shown above, there are three steps in the round trip:

- **Step 1**
PRTG delivers an email via SMTP to a mail server (like an email client).
- **Step 2**
The SMTP server delivers the email to a POP3/IMAP server (which can be located at a remote site, in your local LAN, or on the same server as well).
- **Step 3**
Every few seconds, PRTG connects to the POP3/IMAP server until the test email arrives.

Recommended Configuration

Here is a simple concept to check the delivery of email from and to your organization:

1. Create a dedicated email account for this test in your mail system.
2. Set up an external email account (for example, on a hosted mail server or free mail service) and configure it to send all emails back to this dedicated email account in your organization (that you created in [step 1](#)).
3. Set up a Round Trip sensor to send an email to the external email account (that you created in [step 2](#)) using your network's mail server and then check for the email account on your mail system (that you created in [step 1](#)) for the arrival of the email.

With this technique, you are testing multiple aspects of your email server setup. As long as the sensor shows the Up [status](#)¹⁹⁷, this means:

- Your email server accepts emails via SMTP.
- Emails are being sent to the outside world. So the internet connection and MX lookups work.
- Emails from an external mail server can be delivered into your mail system. So the MX records for your domain are correct and the mail server is reachable from the outside world. Also, your email filtering is working.
- Emails can be retrieved using POP3 (or IMAP).

Use dedicated email accounts with this sensor. If you use more sensors of this type, make sure that each sensor uses its own email accounts.

Conclusion

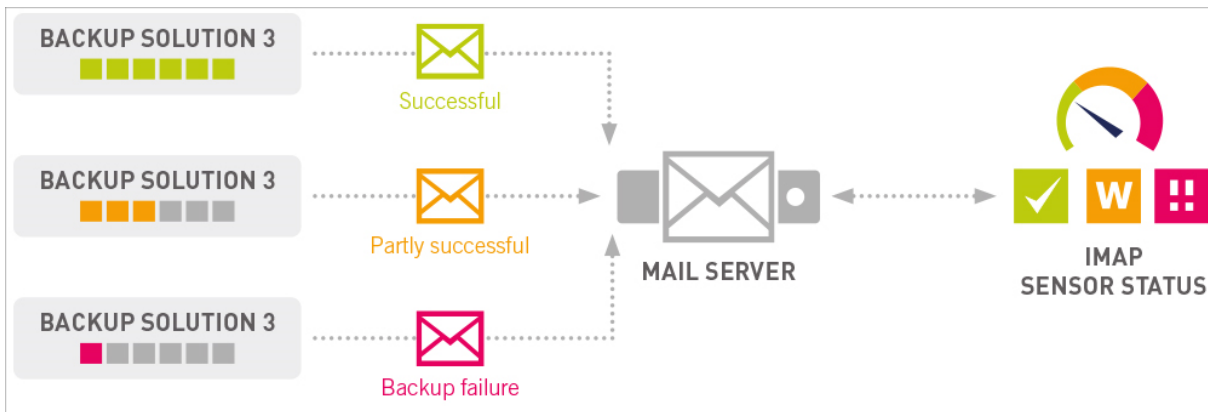
These two sensors ensure the delivery of email from and to your mail servers. Compared to the standard SMTP, POP3, and IMAP sensors that only check the availability of these services, the two round trip sensors actually monitor the complete transaction from accepting the email on the first email server to the delivery of the email to the final POP3/IMAP server.

12.9 Monitoring Backups

Monitoring your backup software enables you to be sure that your recent backups succeeded. With PRTG, you can check the email notifications of various backup jobs. You only need to do two things for backup monitoring:

1. Configure your backup software to send emails to a dedicated email account.
2. Configure the [IMAP sensor](#)¹⁴³⁰ for backup monitoring.

PRTG analyzes the backup emails for you and sets the status of the IMAP sensor accordingly. This way you see the states of all your backup jobs.



Backup Monitoring via Email

Setting up Backup Monitoring

Refer to our Knowledge Base for a step-by-step tutorial on how to monitor your backup jobs: [How can I monitor my backup software to be sure backup succeeded last night?](#)

More

KNOWLEDGE BASE

How can I monitor my backup software to be sure backup succeeded last night?

- <https://kb.paessler.com/en/topic/47023>

Can I analyze multipart emails using the IMAP sensor?

- <https://kb.paessler.com/en/topic/63532>

12.10 Monitoring Virtual Environments

Monitoring your complete IT infrastructure in a comprehensive way usually means monitoring not only your physical infrastructure, but also your virtual environments. With the layer of virtualization added to the layers that represent your physical hardware, it also becomes necessary to plan beforehand how you want to logically set up your monitoring infrastructure.

Monitoring All Layers of Your IT Infrastructure

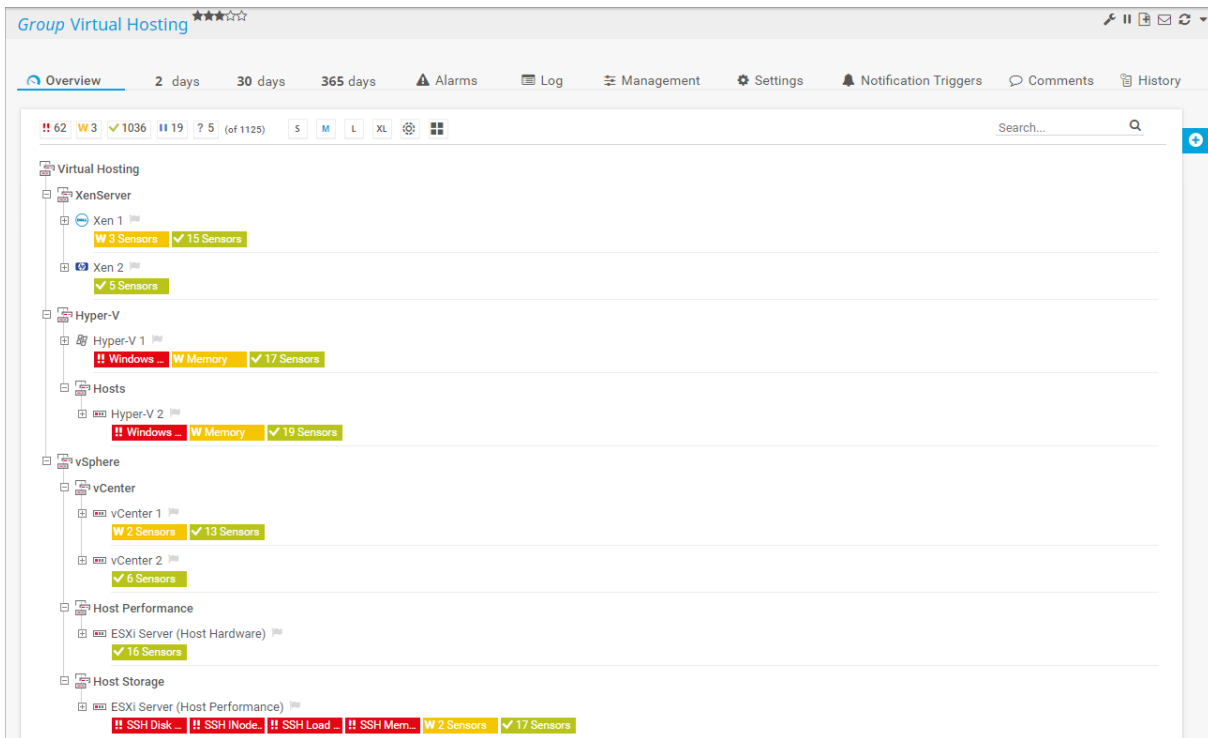
In general, you can assume that with the layer of virtualization, you have to monitor a total of four layers in your IT infrastructure.

Layer	Description
Hardware (Server Racks)	<p>Usually, you monitor most of the hardware components in your network with SNMP sensors⁴⁶¹⁵. With this monitoring technology⁴²⁸⁶, you can gather monitoring data such as CPU load, memory, and disk space. You can also get information about the network traffic and bandwidth usage of your routers and switches.</p> <p>Alerts can tell you if there is an issue with a hardware component or if hardware resources are running out. In addition, you can identify potential bottlenecks that might affect your virtualized infrastructure.</p>
Host Server Hardware	<p>We recommend that you explicitly monitor the host hardware of your virtualization solution. If you have issues with your virtual machines (VM), the origin might be a host hardware failure. You should closely monitor your VM host servers to be alerted if the hardware status changes in any significant way.</p> <p>Besides the standard hardware sensors, PRTG provides specific sensors for various virtualization host servers. The following monitoring data of your host servers can prevent issues in virtualized environments:</p> <ul style="list-style-type: none"> ▪ VMware: current reading and health status (via Web-based Enterprise Management (WBEM)), a general status as shown in vSphere (via Simple Object Access Protocol (SOAP)), and disk space of a VMware data store (via SOAP) ▪ Hyper-V: host health-critical values; deposited pages; network traffic; CPU usage of guests, hypervisor, and in total ▪ Citrix XenServer: CPU, memory, and network usage; the number of running VMs on the host server; and load average
Resource Usage of VMs	<p>VMs run on their particular host servers. PRTG can show you the status of single VMs and several of their performance counters. You might want to know which resources a single VM uses and needs, but we do not recommend that you monitor single VMs in every case because it has a noticeable influence on overall performance. Often, it is sufficient to only monitor VMs that are critical for your network. If a VM reaches its capacity limits, PRTG can alert you so that you can take the respective steps to solve the issue.</p>

Layer	Description
Operating Systems of VMs	<p>Indicators for a healthy VM that you can monitor with PRTG are:</p> <ul style="list-style-type: none"> ▪ VMware: CPU and memory usage, disk read and write speed, read and write latency, and network usage ▪ Hyper-V: CPU usage, disk read and write speed ▪ Citrix XenServer: CPU usage and free memory <p>You can monitor, for example, the Windows operating system of a single VM with the standard WMI sensors. With this technology, you can access data of various Windows parameters. Other operating systems like Linux/macOS can make data available via SSH and SNMP.</p> <p>The status of the operating systems on your VMs can indicate potential issues. You can monitor these but be careful with regard to performance considerations. This is because sensors using the WMI protocol have a high impact on system performance, so you should only monitor operating systems that are critical for your infrastructure. Furthermore, you do not need to monitor every item multiple times. For example, it might be sufficient to monitor free disk space only as a needed resource of the actual VM, not for the VM's operating system itself.</p>

Monitoring the Virtual Infrastructure

To monitor your IT infrastructure, best practice is to first set up the monitoring of your data center's hardware layer in PRTG. This way, you can detect potential bottlenecks that might have an impact on your virtual servers. Then, you can prepare to start monitoring your virtual environment. If you use several solutions for virtual hosting, it is also a good idea to group related host servers, their VMs, and the operating systems. The screenshot below shows a possible structure of monitoring a virtual environment with PRTG.



Grouped Virtual Components

At the top level, you can see the [Virtual Hosting](#) group. This group contains several subgroups for the virtualization solutions Citrix [XenServer](#), Microsoft [Hyper-V](#), and VMware [vSphere](#). The [vSphere](#) group, for example, has three subgroups: we monitor the vCenter VMs and the vCenter Windows operating system ([vCenter](#) group), the performance of the host server ([Host Performance](#) group), and the storage system of the host ([Host Storage](#) group).

Devices for Physical Hosts

In PRTG, set up devices that represent the physical hosts of your VMs. For example, for your VMware hosts, add devices that represent the ESXi servers. For Hyper-V, add devices that represent your Hyper-V host servers. For Citrix, add devices that represent your XenServers.

Then you can add suitable sensors to the host server devices. If you run the [auto-discovery](#)^[296], many sensors are automatically created. Several preconfigured host hardware sensors are available:

- [VMware Host Hardware \(WBEM\) sensor](#)^[333]: monitors an ESXi server via WBEM
- [VMware Host Hardware Status \(SOAP\) sensor](#)^[340]: monitors a VMware host server via SOAP
- [VMware Host Performance \(SOAP\) sensor](#)^[3416]: monitors a VMware host server via SOAP
- [Hyper-V Host Server sensor](#)^[1384]: monitors a Microsoft Hyper-V host server via Windows Management Instrumentation (WMI) or Windows performance counters, as configured in the [Windows Compatibility Options](#)^[464] of the parent device
- [Citrix XenServer Host sensor](#)^[670]: monitors a Xen host server via HTTP

These sensors monitor hardware-specific counters to ensure that no hardware issues affect your actual VMs. Additional sensors can monitor the host hardware via the Simple Network Management Protocol (SNMP) (for example, traffic and custom requests), and the data storage on ESXi servers via SOAP. There are also sensors for network adapters and storage devices that are connected to a Hyper-V host server.

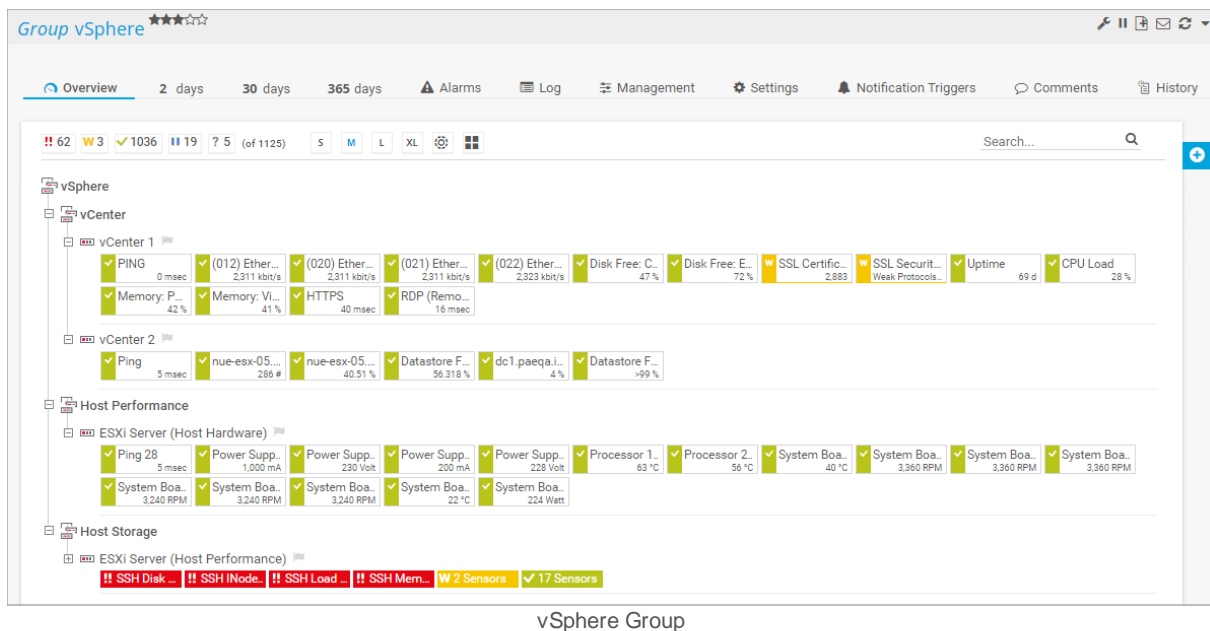
Devices for Virtual Machines

To monitor your actual VMs, add them to your host servers in PRTG. For a better overview, you might want to add a device to PRTG that represents your host server and add sensors for your VM there. The respective sensors for VMs show you the performance of single VMs as well as their resource usage. This identifies VMs with low performance so that you can react before there is an issue with one or more of your VMs. As mentioned before, you can additionally monitor the operating systems of your VMs, if necessary. See the following sections for details about particular virtualization solutions.

VMware Virtual Machine

The [VMware Virtual Machine \(SOAP\) sensor](#) monitors VMs on a VMware host server via SOAP. The general idea is to add a vCenter server as a device to your vCenter group and use it as a parent device to which you add the sensors for your VMs. This way, in the case of vMotion, when your VMs change their host server, PRTG can follow these movements and does not lose the monitored VMs.

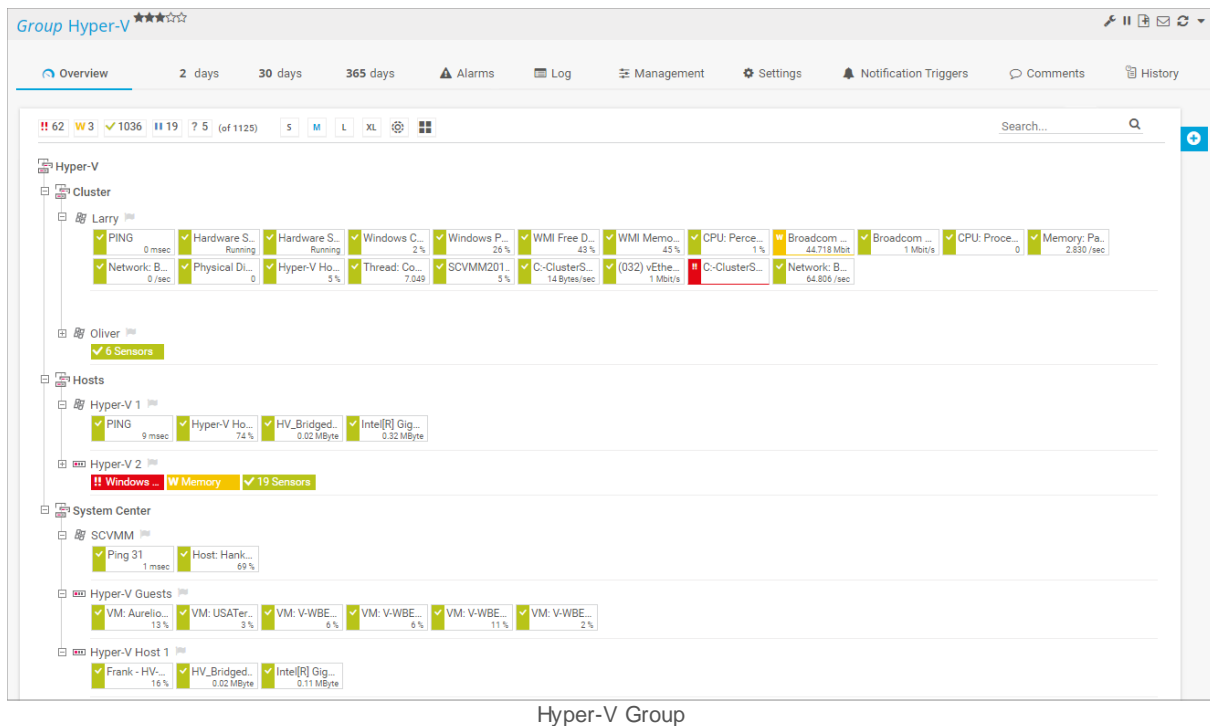
For this sensor, .NET 4.7.2 or later must be installed on the probe system. If you use many VMware sensors, we also recommend that you adjust the settings on your VMware host server to accept more incoming connections.



This screenshot shows an example of a vSphere group. As recommended, the sensors for the VMware virtual machines are added to the vCenter 1 device. There is also a dedicated vCenter 2 device for the vCenter Windows operating system with common WMI sensors for CPU, memory, disk, and network usage. The ESXi host servers are organized in their own groups regarding performance and storage. In this example, PRTG monitors the hosts with the standard SNMP hardware sensors as well as with the specific VMware ESXi host sensors.

Microsoft Hyper-V Virtual Machine

The [Hyper-V Virtual Machine sensor](#)^[1395] monitors VMs via Windows Management Instrumentation (WMI) or Windows performance counters, as configured in the [Windows Compatibility Options](#)^[464] of the parent device. With this hybrid approach, the sensor first tries to query data via performance counters and uses WMI as a fallback if no performance counters are available. Performance counters generally need less system resources than WMI. The parent device of this sensor must be a Windows server running Hyper-V. You should also disable the User Account Control (UAC) in the Windows operating system of the VM. Otherwise, the sensor might change to the Down status with the error message [The virtual machine is not running or is powered off](#). Also, this sensor does not support [Live Migration](#).



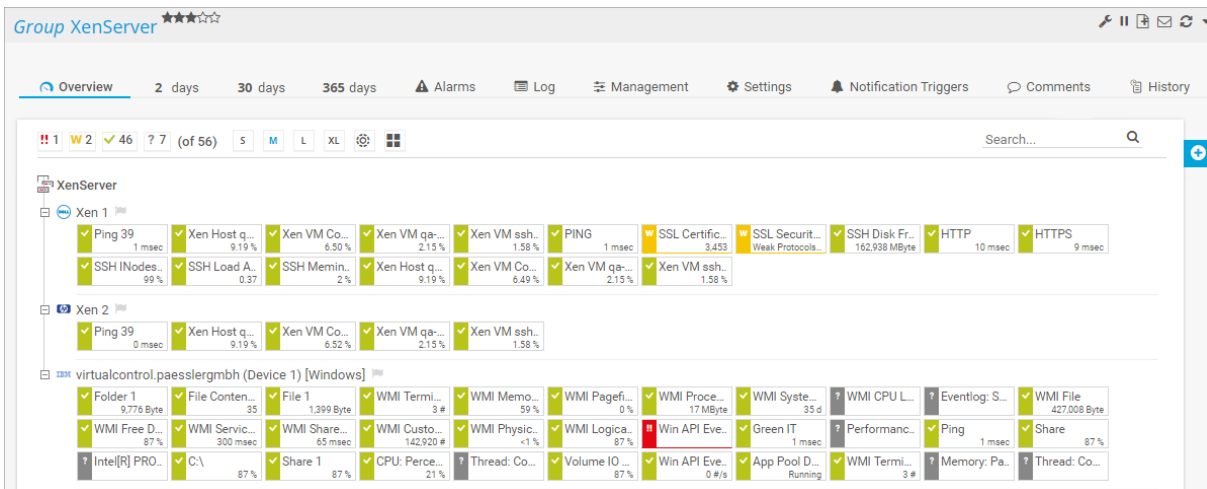
Hyper-V Group

This screenshot shows an example of a [Hyper-V](#) group. There is a dedicated group for failover clusters where two cluster nodes are monitored with several SNMP and WMI sensors, as well as Hyper-V Host Server sensors and sensors for the Hyper-V virtual machines. This ensures that Hyper-V and failover clusters work without any issues. The Hyper-V hosts are monitored the same way, organized in a dedicated group for hosts.

Citrix XenServer Virtual Machine

The [Citrix XenServer Virtual Machine sensor](#)^[681] monitors VMs via HTTP. For this sensor, you have to add a device that represents a Citrix XenServer with version 5.0 or later. Another requirement is the Microsoft .NET Framework. You have to install .NET 4.7.2 or later on the probe system.

In a XenServer pool, each host knows each running VM. Because of this, there is no central instance that provides all available data, so it does not matter on which host you query your VMs. All queries on any host are automatically forwarded to the pool master that manages the XenServer pool. Therefore, it is sufficient to create the desired sensors for your XenServer VMs on a device that represents one host server of your pool. The XenServer sensors find out which host is running and retrieve the respective data.



XenServer Group

This screenshot shows an example of a **XenServer** group. There are two devices for XenServer hosts, **Xen 1** and **Xen 2**, that each have a Citrix XenServer Host sensor and several Citrix XenServer Virtual Machine for the particular VMs on this host. Furthermore, the Windows operating system is represented as a dedicated **virtualcontrol** device that PRTG monitors with several WMI sensors regarding CPU, disk, memory, and network usage.

Performance Considerations

For best performance when monitoring virtual environments, we strongly recommend that you use a computer with Windows Server 2012 R2 or later installed on the probe system. For example, you can run up to 300 VMware sensors with a 60-second scanning interval on Windows Server 2012 R2 or later, while you can only use 30 VMware sensors with the same scanning interval on Windows Server 2008 R2.

12.11 Monitoring Databases

Monitoring your databases lets you ensure that database queries are processed in time, and that the database itself performs within the defined parameters. Furthermore, database monitoring with PRTG can alert you via a corresponding sensor status if database queries return unexpected result values.

PRTG comes with built-in native sensors for the most common databases:

- Microsoft SQL servers
- MySQL servers
- PostgreSQL servers
- Oracle SQL servers

It is also possible to monitor many other database servers. For this case, PRTG uses the ActiveX Data Objects (ADO) interface.

There are two types of database sensors:

- [Sensors that monitor databases directly](#)⁴³²⁴: Monitor databases from the user perspective. These sensors send a request to the database server and receive corresponding values. You can optionally process data tables and show values in individual channels or monitor transactions.
- [Sensors that monitor database performance](#)⁴³²⁷: Monitor databases with a more abstract view on the servers. Usually, these sensors monitor performance counters via Windows Management Instrumentation (WMI).

Sensors Monitoring Databases Directly


PRTG provides several sensors that can monitor the content of databases. Sensors of this type connect to the database server, execute a defined query, and show the execution time of the whole request and the query. You can use these sensors to process the data table and show requested values in individual channels.

The following sensors are available for this kind of monitoring:

- [Microsoft SQL v2 sensor](#)¹⁶⁰⁷: Monitor your Microsoft SQL server 2005 or later.
- [MySQL v2 sensor](#)¹⁶⁷⁴: Monitor your MySQL server version 5.0 or later.
- [Oracle SQL v2 sensor](#)¹⁹²³: Monitor your Oracle database server version 10.2 or later.
- [PostgreSQL sensor](#)²⁰⁶⁴: Monitor your PostgreSQL database version 7.x or later.

For these sensors, you can define valid Structured Query Language (SQL) statements that the sensors send to the database server. Define the queries in an SQL script file and store it in the respective \Custom Sensors\sql\ subfolder of the [PRTG program directory](#)⁴⁵²⁶.

You can select this SQL script when you add the sensor. With every [scanning interval](#)³⁷⁹, the sensor executes this script with the defined query against the database and the database returns corresponding values in individual channels (see the [example](#)⁴³²⁵ below for sample channel value selections). Use the [channel settings](#)³⁹⁷⁸ to define limits for specific values.

 These sensors need .NET 4.7.2 or later installed on the probe system.

Alternatively, you can monitor almost all available database servers with the [ADO SQL v2 sensor](#)⁴⁹⁰ via an ADO connection.

Example: SQL Channel Value Selection

The SQL (v2) sensors determine their channel values by using column numbers, column names, row numbers, or key value pairs. This section shows which option you can choose to get the desired value from an SQL data table.

Consider the following data table that an SQL query might return from a database:

article_id	articles_av ailable	first_listing	orders
00	12	2001	4
01	345	2005	56
02	678	2008	290
03	90	2012	32

This data table has four columns with the following numbering:

- Column 0 has the name "article_id"
- Column 1 has the name "articles_available"
- Column 2 has the name "first_listing"
- Column 3 has the name "orders"

The numbering of columns starts with 0, as well as the numbering for rows starts with 0. The table has four rows, each row contains the properties of one "article". The "articles" have the IDs 00, 01, 02, 03. This also illustrates the proper row numbering (0, 1, 2, 3).

With the options for channel value selection in SQL sensors, you can read out the following values:

- All values that are in row 0 (here: 00, 12, 2001, 4)
- All values that are in column 0 (here: 00, 01, 02, 03)
- All values that are in column 1 (here: 12, 345, 678, 90)

It is not possible to get values from any other cell in a data table. If you need this, you have to reconstruct your data table.

The following samples show possible results for channel value selections regarding this data table:

Sample Channel Value Selection Description

Channel Value Selection by Column Number

This channel shows the value in row 0 of the column you specify. Consider you define "1" as column number. Then the channel value is "12" because it is the cell in column 1 and row 0.

Possible return values for this option are:

- Column number "0" returns "00"
- Column number "1" returns "12"
- Column number "2" returns "2001"
- Column number "3" returns "4"

Channel Value Selection by Column Name

This channel shows the value in row 0 of the column you specify. Consider you define "orders" as column name. Then the channel value is "4" because it is the cell in column "orders" and row 0.

Possible return values for this option are:

- Column name "article_id" returns "00"
- Column name "articles_available" returns "12"
- Column name "first_listing" returns "2001"
- Column name "orders" returns "4"

Channel Value Selection by Row Number

This channel shows the value in column 0 of the row you specify. Consider you define "1" as row number. Then the channel value is "01" because it is the cell in row 1 and column 0.

Possible return values for this option are:

- Row number "0" returns "00"
- Row number "1" returns "01"
- Row number "2" returns "02"
- Row number "3" returns "03"

Channel Value Selection by Key Value Pair

This channel shows the value in column 1 of the same row where the key in column 0 was found. Consider you define "02" as key. Then the channel value is "678" because it is the cell in the same row in column 1 as the key in column 0.

Possible return values for this option are:

- Key "00" returns "12"
- Key "01" returns "345"
- Key "02" returns "678"
- Key "03" returns "90"

This sample channel value selection illustrates how to choose the correct option to get needed values from an SQL data table and shows which cells the SQL sensors can address.

UDF: Counting Returned Rows

If you execute a User-defined Function (UDF) on the SQL server and want to know how many rows this UDF returns, follow these steps:

- A command to execute your UDF on the SQL server might look like this, for example:

```
exec myUDF
```

- To get the information how many rows this UDF returns, extend the query in your SQL script:

```
exec myUDF;  
select @@rowcount as row_count
```







- Create a new SQL v2 sensor and select Data Processing during sensor creation.
- In the settings of your SQL sensor, choose the option Select Channel Value by Column name
- Enter row_count into the Column Name field of the channel to show the value from this column in the channel.
- To count table rows returned by a **SELECT** statement, choose the option Count table rows in the sensor settings section Data Processing.

Sensors Monitoring Database Performance

Performance sensors for database servers have a more abstract view on databases and observe performance externally. They do not read out any values of the database, neither do they send SQL queries to databases. This sensor is only available for Microsoft SQL.

The Microsoft SQL server sensors monitor performance via WMI. You can manually set up different performance counters for your server instances, for example, general statistics, access methods, buffer and memory manager, locks, and SQL statistics.

Microsoft SQL Server performance sensors are available for Microsoft SQL Server 2008, 2012, 2014, 2016, 2017, and 2019:


- [WMI Microsoft SQL Server 2008 sensor](#)  3749
- [WMI Microsoft SQL Server 2012 sensor](#)  3762
- [WMI Microsoft SQL Server 2014 sensor](#)  3775
- [WMI Microsoft SQL Server 2016 sensor](#)  3788
- [WMI Microsoft SQL Server 2017 sensor](#)  3801
- [WMI Microsoft SQL Server 2019 sensor](#)  3814


12.12 Monitoring Syslogs and SNMP Traps

PRTG is utilizable as a full-scale syslog server and Simple Network Management Protocol (SNMP) trap receiver without having to install additional software. This section describes a sample configuration for the syslog and SNMP trap receiver and gives you an idea about how to use these features.


Syslog is a well-established standard for computer message logging. Many network devices support sending syslogs to communicate informational, analysis, and debugging messages that are intended for network management and security auditing. SNMP traps are asynchronous notifications from SNMP-enabled devices and can be used to report important incidents and data, just like syslog messages. Devices trigger these messages for various reasons, such as system events, outages, critical conditions, and many more.

PRTG provides two dedicated sensors that work as full-scale syslog and SNMP trap receivers:

- [SNMP Trap Receiver sensor](#) 
- [Syslog Receiver sensor](#) 

Because both the Syslog Receiver and the SNMP Trap Receiver are implemented as common sensors, you do not need to install additional software (for example, you do not need an extra syslog server but only the PRTG web server). You can create the Syslog Receiver sensors as well as the SNMP Trap Receiver sensors in the usual way via the [Add Sensor](#)  dialog. Then configure your syslog or SNMP trap-enabled devices to send messages to PRTG.






Under lab conditions, PRTG could handle about 10,000 syslog and trap messages per second on a quad core desktop machine when using a single sensor without filters.

 The number of messages PRTG can process actually depends on your configuration and system setup. It might be significantly fewer messages.

You can filter the incoming messages by various parameters so that PRTG only processes specific messages and deletes other data right away. Processed messages are stored in an internal, high-performance database on the probe system and are available for review and analysis via the PRTG web interface. The main limiting factor for storing syslog and trap messages is the hard disk space on the probe system.

Sample Configuration

Follow the steps below for a sample configuration of Syslog Receiver and SNMP Trap Receiver sensors. You can apply these instructions to both the SNMP Trap Receiver as well as the Syslog Receiver because the setup works in a similar way for both.

1. [Adding the Receivers](#) 
2. [Configure the Source Devices](#) 
3. [Collect Messages](#) 
4. [Review and Analyze Messages](#) 
5. [Refine the Filters](#) 
6. [Create Notification Triggers](#)

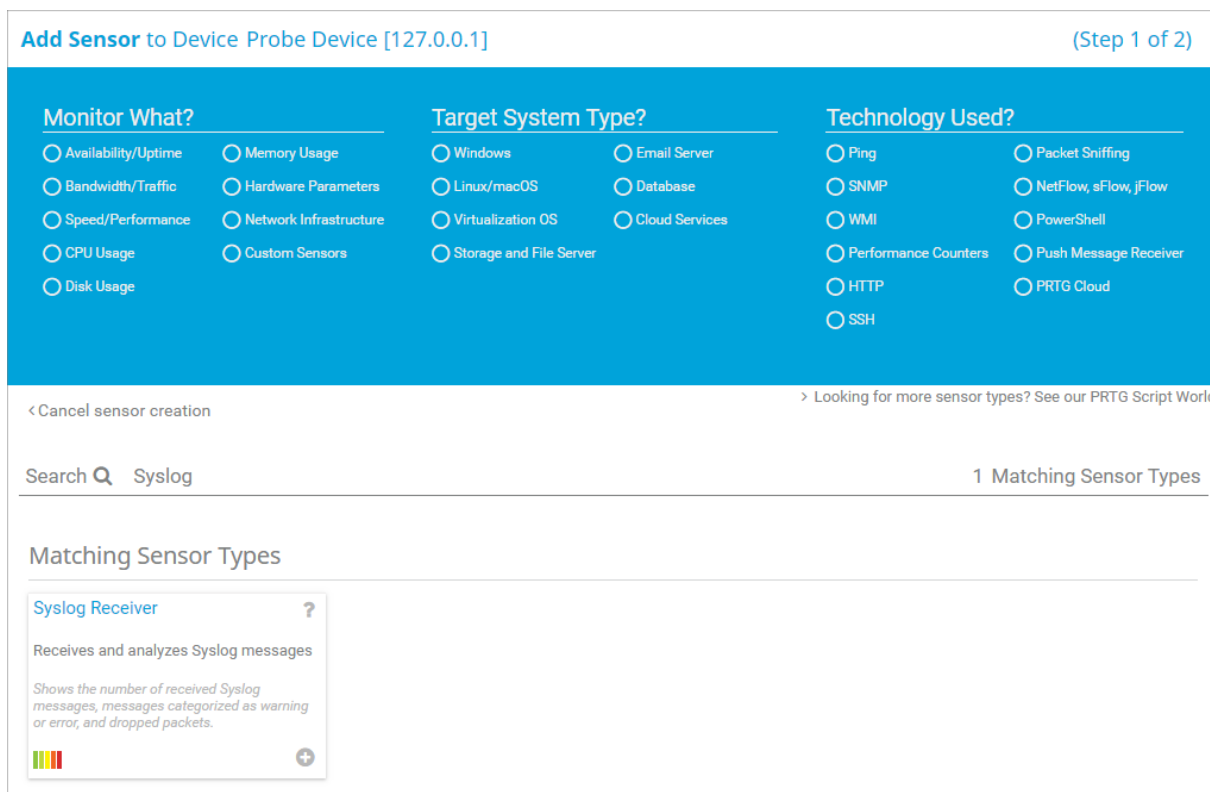
Step 1: Add a Syslog Receiver or SNMP Trap Receiver sensor

Both sensors inherit an implicit filter from the IP address of the parent device. So it is possible to add these sensors to a [probe device](#)^[140]. Then you receive all messages from the probe system and can optionally filter for specific sources later. You can also add these sensors directly to the source device. Then only messages from this device are processed.

Add the receiver sensors to the desired device in the usual way, for example, via the device's [context menu](#)^[266]. We recommend that you leave the sensor's default settings unchanged for the first configuration (port, include and exclude filter, warning and error filter) to see what data actually comes in.

i Adding the sensor directly to a network device increases its speed in comparison to a filter definition in the sensor settings. Distributing Syslog Receiver and SNMP Trap Receiver sensors over different probes makes the overall performance scalable and gives you flexibility with the [data storage](#)^[4526] location.

i If you do not add the sensor to a probe device but to a different device, be careful with the configuration: Ensure that the IP address or Domain Name System (DNS) name of the parent device matches the proper sender. For example, if you want to receive syslog or trap messages from a storage area network (SAN), you might have to add a device using the IP address of a specific array member that sends the messages. Providing a DNS name that points to the IP address of a whole group might not work for SANs.



Syslog Receiver Sensor in the Add Sensor Dialog

Step 2: Appropriately configure your network devices that support sending syslogs or SNMP traps

Configure your syslog or SNMP trap ready devices to send syslogs or traps (see the documentation of the respective device vendors). They have to address the probe system where your Syslog Receiver or SNMP Trap Receiver sensor runs. So specify the IP address of the probe system. If you keep your syslog or trap receiver's default settings, use port 514.

i The protocol is User Datagram Protocol (UDP).

i The SNMP Trap Receiver does not support SNMP v3 traps. Use SNMP v1 or v2c instead.

Filter

Filters are formulas using AND, OR, NOT, brackets and the following fields:

Field	Parameters	Examples
source[ip]	Enter a UDP source IP, IP range, or IP hostmask	source[10.0.23.50], source[10.0.23.10-50], source[10.0.23.10/255]
facility[number]	Enter a number or range of the facility code, between 0 and 23	facility[2], facility[5-7]
severity[number]	Enter a single number or range of the severity code, between 0 (Emergency) and 7 (Debug)	severity[4], severity[1-3]
hostname[text]	Enter the hostname string to match (exact, case sensitive)	hostname[www.paessler.com]
tag[text]	Enter the tag string to match (exact, case sensitive)	tag[su]
appname[text]	Enter the app name string to match (exact, case sensitive)	appname[myproc]
procid[text]	Enter the process ID string to match (exact, case sensitive)	procid[8710]
msgid[text]	Enter the message ID string to match (exact, case sensitive)	msgid[ID47]
message[parttext]	Enter a substring to match the message field (partial, case insensitive)	message[Error]
data[parttext] data[id,param] data[id,param,value]	Enter a substring to match on structured data as displayed in the table (partial, case sensitive); or enter an ID and a parameter (comma separated) to check if the parameter exists in the ID element; or enter an ID, a parameter, and a value (comma separated) to match on a structured data value (RFC 5424)	data[exampleSDID@32473], data[exampleSDID@32473, eventSource], data[exampleSDID@32473, eventSource,Application]

Include Filter **i** severity[0-6]

Exclude Filter **i**

Warning Filter **i** severity[4]

Error Filter **i** severity[0-3]

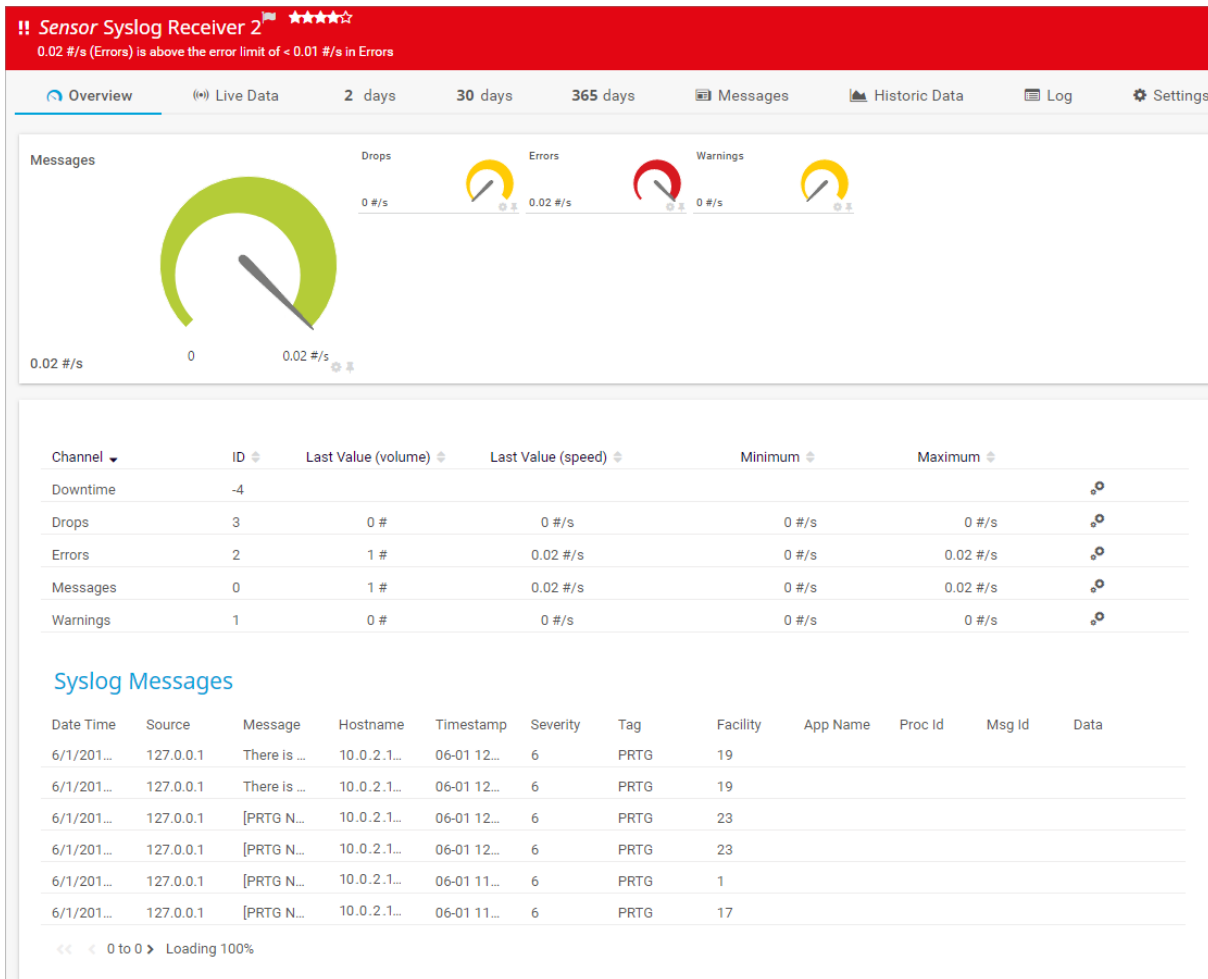
Default Sensor Settings: Sufficient for the First Configuration

Step 3: Start collecting syslog or SNMP trap messages from your devices

You do not have to complete any further configuration steps to use PRTG as a syslog server or SNMP trap receiver. When your devices send syslogs or SNMP traps to the specified probe system, the messages appear automatically in the PRTG web interface. After each sensor scan (by default, the scanning interval is inherited from the parent device), PRTG counts the received syslogs or traps in the according channels (total number of messages during the last interval, error and warning messages, or dropped packets).

Let the syslog receiver or the SNMP trap receiver collect data for a while to see what comes in. By default, the respective sensor shows the Warning status if there was at least one message with **severity 4** and the Down status if there was at least one message with **severity 3 or lower** during the last sensor scan.

❶ Incoming messages are counted per scanning interval, so it might take a few moments to see the received syslogs and traps, depending on the remaining time until the next sensor scan. Of course, you can use Scan Now via the sensor's [context buttons](#)¹⁸⁶ to perform an immediate scan and see corresponding data. The sensor states are also defined per scan. So, for example, a message that is classified as an error counts for the error channel only for one scanning interval. If there is no new error message in the following scanning interval, no message is shown in the error channel and the Down status disappears after the next sensor scan. The syslog or trap itself is still available on the Messages tab.



Syslog Receiver Sensor with Error Messages

Step 4: Review and analyze the collected data

All incoming messages that match the include filter are processed and stored in the internal high-performance database of PRTG. Review and analyze the received syslogs and traps via the PRTG web interface. Then you can decide about further filtering of the incoming messages.

❶ The received data is also available in the [PRTG data directory](#)⁴⁵²⁶ as common files. One data file is created per hour.

In PRTG on premises you can add the Management Information Base (MIB) files of your devices to the \MIB subfolder of the [PRTG program directory](#)⁴⁵²⁶ to use them with the SNMP Trap Receiver sensor. This results in object identifier (OID) resolution and makes trap messages more comprehensible. For example, instead of the OID 1.3.6.1.4.1.32446.1.1.2 you would see [SNMPv2-SMI-v1::enterprises.32446.1.1.2 = 0](#) (example from the PRTG MIB file).

Syslog Messages Items: x 50
Hide Filters ^

Select Range v Date Range:
2017-03-05 12:13 2017-06-13 12:13

Filter Source Message Hostname Severity Tag Facility Appname Procid Msgid Data

	Source	Message	Hostname	Timestamp (Device)	Severity	Tag	Facility	App Name	Proc Id	Msg Id	Data
6/1/2017 12:44:38 PM	127.0.0.1	There is an emergency issue.	10.0.2.134	06-01 12:44:38	6	PRTG	19				
6/1/2017 12:41:43 PM	127.0.0.1	There is an emergency issue.	10.0.2.134	06-01 12:41:41	6	PRTG	19				
6/1/2017 12:39:18 PM	127.0.0.1	[PRTG Network Monitor	10.0.2.134	06-01 12:39:18	6	PRTG	23				
6/1/2017 12:35:38 PM	127.0.0.1	[PRTG Network Monitor	10.0.2.134	06-01 12:35:38	6	PRTG	23				
6/1/2017 11:24:16 AM	127.0.0.1	[PRTG Network Monitor	10.0.2.134	06-01 11:24:16	6	PRTG	1				
6/1/2017 11:17:32 AM	127.0.0.1	[PRTG Network Monitor	10.0.2.134	06-01 11:17:32	6	PRTG	17				

Received Syslogs on the Messages Tab

Step 5: (Optionally) refine the filters

To increase productivity with your PRTG syslog servers and trap receivers, you can adjust the default filter settings. PRTG provides a comprehensible formula system that you can use to describe what kind of messages you want to process and which of them count as error or warning messages. You can configure the following filters for received messages in the settings of the respective receiver:

- Include filter: Process and store specific types of messages only.
- Exclude filter: Do not process specific types of messages and discard them.
- Warning filter: Define rules to categorize received messages as warnings.
- Error filter: Define rules to categorize received messages as errors.

Use the syntax that is provided in the corresponding sections to define your individual filter rules: [SNMP Trap Receiver sensor](#)³¹¹⁹ and [Syslog Receiver sensor](#)³³³⁷.

i You can create filter rules with a few mouse clicks in the Advanced Filter on the Messages tab of a specific sensor and copy these rules into the sensor settings to apply them.

Advanced Filter ✕

Filters are formulas using AND, OR, NOT, brackets and the following fields:

Field	Parameters	Examples
source[ip]	Enter a UDP source IP, IP range, or IP hostmask	source[10.0.23.50], source[10.0.23.10-50], source[10.0.23.10/255]
facility[number]	Enter a number or range of the facility code, between 0 and 23	facility[2], facility[5-7]
severity[number]	Enter a single number or range of the severity code, between 0 (Emergency) and 7 (Debug)	severity[4], severity[1-3]
hostname[text]	Enter the hostname string to match (exact, case sensitive)	hostname[www.paessler.com]
tag[text]	Enter the tag string to match (exact, case sensitive)	tag[su]
appname[text]	Enter the app name string to match (exact, case sensitive)	appname[myproc]
procid[text]	Enter the process ID string to match (exact, case sensitive)	procid[8710]
msgid[text]	Enter the message ID string to match (exact, case sensitive)	msgid[ID47]
message[parttext]	Enter a substring to match the message field (partial, case insensitive)	message[Error]
data[parttext] data[id,param] data[id,param,value]	Enter a substring to match on structured data as displayed in the table (partial, case sensitive); or enter an ID and a parameter (comma separated) to check if the parameter exists in the ID element; or enter an ID, a parameter, and a value (comma separated) to match on a structured data value (RFC 5424)	data[exampleSDID@32473], data[exampleSDID@32473, eventSource], data[exampleSDID@32473, eventSource,Application]

OK
Cancel

Advanced Filters on the Messages Tab

Step 6: (Optionally) create notification triggers



By default, the warning and error channels of the Syslog Receiver and SNMP Trap Receiver sensors have a very low upper warning or error limit (0.00000001). The reason for this is that even when only one syslog or trap has been counted in the respective channel during a scanning interval, the overall status of the sensor shows this with the corresponding status. This way, you always recognize if there is something wrong on the monitored system.

Because of this sensor behavior, best practice is to add a [state trigger](#) on the [Notification Triggers](#) tab of the sensor if you want to get a [notification](#) when a warning or error message type comes in. Define **0 seconds** Down or Warning time condition to not miss any warnings, errors, or any other messages. Alternatively, you could use a [speed trigger](#) for notifications regarding messages per second.

■ For more information, see the Knowledge Base: [How can I configure sensors using speed limits to keep the status for more than one interval?](#)

ⓘ You can use syslog and trap specific placeholders in notification templates to see the messages when you receive a notification. See the [More](#) section for further information.

Notification Triggers

Type ^	Rule	Actions
State Trigger	When sensor state is Down for at least 0 seconds, perform Push Notification	 
	When sensor state is Down for at least 300 seconds, perform Push Notification and repeat every 0 minutes	
	When sensor leaves Down state after a notification was triggered, perform Push Notification	

State Trigger for a Syslog Receiver Sensor

More

■ KNOWLEDGE BASE

How can I configure sensors using speed limits to keep the status for more than one interval?

- <https://kb.paessler.com/en/topic/73212>

12.13 Monitoring via Push

PRTG provides the option to monitor passively received data. For this purpose, you can set up a device in a way that it automatically sends the data to PRTG. Specific sensors can receive this data and alert you based on your individual settings. For example, all Linux/Unix and most network devices support remote devices generating data, which has to be configured on each device, and sending the messages to a probe system. Usually, only the destination IP and port are required.

Push monitoring enables you to use webhooks to push messages to PRTG using HTTP. Wikipedia describes a webhook as a method of augmenting or altering the behavior of a web page or application with custom callbacks.

PRTG comes with sensors for push monitoring:

- [HTTP Push Count sensor](#)¹³⁰²: counts the number of received messages.
- [HTTP Push Data sensor](#)¹³¹³: displays numeric values from received messages.
- [HTTP Push Data Advanced sensor](#)¹³⁰⁶: shows received values and messages encoded in valid Extensible Markup Language (XML) or JavaScript Object Notation (JSON).
- [HTTP IoT Push Data Advanced sensor](#)¹²⁹⁰: displays data from messages that are received from Internet of Things (IoT) capable devices (for example, Sigfox devices) and that are pushed via an HTTPS request to PRTG.

Use Cases

The push technology can be useful for monitoring in different cases, for example, when target devices do not allow requests via the usual technologies. The following scenarios are good examples of where to use HTTP Push sensors.

- Devices that cannot run a probe
- Appliances that are not accessible via Secure Shell (SSH) or the Simple Network Management Protocol (SNMP)
- Web servers that can periodically run certain scripts or PHP
- Migrating a lot of EXE sensors into one EXE script that manages the HTTP Push sensors and sends data to them. Some coding is required, see the Knowledge Base article: [How can I monitor SCVMM hosts and VMs with PRTG?](#)
- When monitoring Linux services, see the Knowledge Base: [How can I monitor and automatically restart a service on a Linux host?](#)
- If you need to push a lot of data to PRTG in short periods of time: the sensors have been tested with about 10,000 values pushed within one minute.

How to Use

Webhooks basically work like push messages. These are triggered by an event (for example, a new comment to a blog post) and send according information to a specified URL in real time. You can use this technology to push messages to the probe, and monitor count and content with HTTP Push sensors. Because webhooks use HTTP, you can integrate them without having to add new infrastructure to your network.


Recommended Configuration

Follow the steps below for a sample configuration of the HTTP Push sensors.

1. Add the sensors.
2. Define the URLs.

Step 1: Add the HTTP Push Count, HTTP Push Data, HTTP Push Data Advanced, and HTTP IoT Push Data Advanced sensors.

You can use the standard method to add sensors to your configuration.

1. Select the probe device or a device of your own.
 -  A device of your own has no practical advantage with HTTP Push sensors but it might be good for organizational purposes.
2. Click Add Sensor and filter for Push Message Receiver under Technology Used.
3. Select one of the HTTP Push sensors that fits best to your intended usage.

 For more details, see section [Add a Sensor](#)^[36].

Step 2: Define the corresponding URL to send HTTP requests to PRTG.

For the desired configuration to be properly sent to and received by PRTG, use the following URL formats.

HTTP Push Count Sensor

The HTTP Push Count sensor uses the following URL:

`http://<probe_ip>:<port_number>/<token>`

Replace the parameters `<probe_ip>`, `<port_number>`, and `<token>` with the corresponding values.

- The `<probe_ip>` is the IP address of the probe system with the sensor.
- The `<port_number>` is where the sensor listens for incoming HTTP calls.
- The `<token>` is used to define the matching sensor.

Example:

```
http://192.0.2.0:5050/XYZ123
```

-  You can use several sensors with the same port and identification token. In this case, the number of push messages is shown in each of these sensors.

HTTP Push Data Sensor

The HTTP Push Data sensor uses the following URL:

`http://<probe_ip>:<port_number>/<token>?value=<integer_or_float>&text=<text message>`

Replace the parameters `<probe_ip>`, `<port_number>`, `<token>`, and `<integer_or_float>` with the corresponding values. The `&text` parameter is optional: You can omit it.

- You can define the port number and identification token in the sensor settings.
- The probe IP is the IP address of the probe system with this sensor.
- The value can be an integer or a float value depending on the data of your application. You have to set the value type accordingly in the sensor settings. This parameter is the sensor value.
 - ❗ If this parameter is missing, the sensor shows a Down [status](#)^[197].
- You can optionally add a custom text message by replacing the parameter `<text message>` with your custom text. The text is shown as the sensor message. If there is no value but only a text, the text is shown as an error message.
 - ❗ This text message has to be URL encoded (for example, the whitespaces in the sample URL below). Most browsers do URL-encoding automatically.

Example:

```
http://192.0.2.0:5050/XYZ123?value=0&text=this%20is%20a%20message
```

- ❗ You can use several sensors with the same port and identification token. In this case, the data of push messages is shown in each of these sensors.

HTTP Push Data Advanced Sensor

The HTTP Push Data Advanced sensor uses the following URLs depending on the type of HTTP request.

- GET requests: `http://<probe_ip>:<port_number>/<token>?content=<valid XML_or_JSON>`

The XML encoded value of the content parameter has to match the format as defined in section [Custom Sensors](#)^[444].

- POST requests: `http://<probe_ip>:<port_number>/<token>`

This HTTP request method sends the XML or JSON encoded HTTP body as POST data. The body has to match the format as defined in section [Custom Sensors](#)^[444]. For POST requests, use an HTTP content type other than `application/x-www-form-urlencoded`. We strongly recommend the HTTP content type `application/xml` or `application/json`.

Replace the parameters `<probe_ip>`, `<port_number>`, `<token>`, and `<valid XML_or_JSON>` (for GET requests) with the corresponding values:

- You can define port number and identification token in the sensor settings.
- The probe IP is the IP address of the probe system with this sensor.
- The content of GET requests has to be valid XML or JSON in the PRTG API format.
 - ❗ The content has to be URL encoded (for example, the whitespaces in the sample URL below). Most browsers do URL-encoding automatically.

Minimum example for the GET method that returns one static channel value:

```
http://127.0.0.1:5050/XYZ123?
content=<prtg><result><channel>MyChannel</channel><value>10</value></result><text>this
%20is%20a%20message</text></prtg>
```

i By default, values within the `<value>` tags in the returned XML or JSON must be **integers** to be processed. If **float** values are returned, you have to explicitly define this value type as defined in section [Custom Sensors](#)⁴⁴⁴² with `<float>` tags, otherwise the sensor shows 0 values in affected channels. Example:

```
http://127.0.0.1:5050/XYZ123?  
content=<prtg><result><channel>MyChannel</channel><value>10.45</value><float>1</float>  
</result><text>this%20is%20a%20message</text></prtg>
```

i You can use several sensors with the same port and identification token. In this case, the data of push messages is shown in each of these sensors.

HTTP IoT Push Data Advanced Sensor

For examples for the deployment of the HTTP IoT Push Data Advanced sensor, see [More](#)⁴³³⁸ below.

More

KNOWLEDGE BASE

How can I monitor SCVMM hosts and VMs with PRTG?

- <https://kb.paessler.com/en/topic/68767>

How can I monitor and automatically restart a service on a Linux host?

- <https://kb.paessler.com/en/topic/70771>

How can I monitor IoT and IIoT environments with PRTG and Node-RED?

- <https://kb.paessler.com/en/topic/87520>

How can I monitor Sigfox callbacks with PRTG?

- <https://kb.paessler.com/en/topic/80232>

How can I monitor Sigfox geolocation with PRTG?
















- <https://kb.paessler.com/en/topic/80157>

12.14 Monitoring via HTTP

HTTP is a standard application layer protocol and the basis for data communication on the internet. HTTP is a request-response method for client-server architectures, where the client sends a request and the server processes and responds to the request.

Monitoring via HTTP is useful if you want to monitor websites or web servers. It enables you to keep an eye on the availability and download times of a website or the performance statistics of a web server. There are also a lot of other possible use cases for HTTP sensors. For example, you can request any application programming interface (API) that is reachable via HTTP and monitor returned values. This approach lets you include almost any type of device or application into your monitoring.

PRTG comes with sensors for HTTP monitoring:

- [Cloud HTTP sensor](#)  692
- [Cloud HTTP v2 sensor](#)  705
- [Common SaaS sensor](#)  751
- [HTTP sensor](#)  1192
- [HTTP Advanced sensor](#)  1204
- [HTTP Apache ModStatus PerfStats sensor](#)  1223
- [HTTP Apache ModStatus Totals sensor](#)  1235
- [HTTP Content sensor](#)  1247
- [HTTP Data Advanced sensor](#)  1261
- [HTTP Full Web Page sensor](#)  1277
- [HTTP Push Count sensor](#)  1302
- [HTTP Push Data sensor](#)  1313
- [HTTP Push Data Advanced sensor](#)  1325
- [HTTP Transaction sensor](#)  1339
- [HTTP XML/REST Value sensor](#)  1355
- [REST Custom sensor](#)

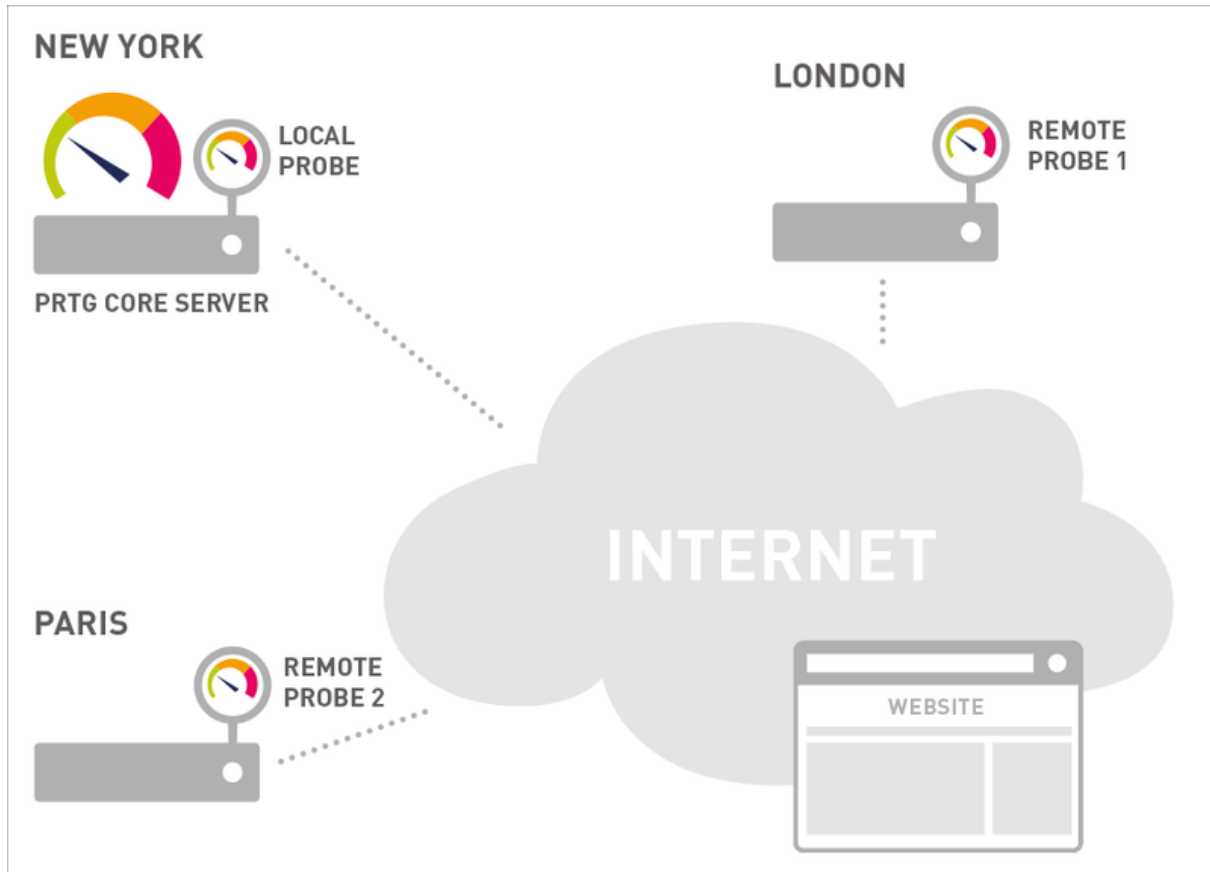
Use Cases

- Monitor the availability and loading times of a website
- Monitor the source code and specific content of a website
- Test the login, purchasing, and shipping processes of a web shop
- Monitor performance statistics and activity of Apache web servers

Types of HTTP Monitoring

Availability Monitoring

This type monitors the availability of a website or a specific website element. For example, the HTTP sensor shows how long the HTML code of a website takes to load. If the sensor shows a loading time that is much longer than expected, the website might not be responding or might be unavailable.



Cloud HTTP Monitoring Provides Better Performance Statistics

The HTTP sensor uses different HTTP requests to request the specified URL.

- GET: requests the website directly
- POST: sends post form data to the URL
- HEAD: requests the HTTP header only, without the actual web page body, saving bandwidth

The HTTP Advanced sensor also monitors the availability of a website, along with other parameters such as bytes received, download bandwidth (speed), and time to first byte, which shows you how fast your web server responds. This sensor lets you use a (custom) user agent when connecting to the target URL and lets you send custom HTTP headers to the target URL.

The Cloud HTTP sensor and the Cloud HTTP v2 sensor monitor a web server from various locations across the globe. For example, the URL of a website to measure the loading time of a page's source code or the URL of a page asset to measure its availability and loading time. The sensors also show the global average response time.

The Common SaaS monitors the availability of your cloud services and is an important pillar for unified monitoring.

Content Monitoring

This type monitors internal values of a web server based application or changes to specific content on a website. The HTTP Full Web Page sensor measures the time it takes to download a web page including all embedded page elements, for example Flash content or images.

 This monitoring option can create a lot of bandwidth traffic, depending on the page size and the scanning interval.

Additionally, the HTTP Content sensor monitors a numeric value returned by an HTTP request. It can also optionally trigger a 'change' notification to notify you of changes to the content.

Example: Content Monitoring


 For example, consider a URL <http://www.example.com/status.html> that returns a PHP script with the current system status in a simple HTML page.

```
<html>
<body>
  Description: Script gives back current status of disk free (%) and CPU usage (%).
  [85.5][12.0]
</body>
</html>
```

You would configure the HTTP Content sensor using

- the script URL from above,
- value type Float,
- and number of channels 2.

The sensor calls the URL with every scanning interval and only regards the two values in brackets [], handling each of them in one channel. The additional description text and HTML tags are not necessary. In this example, they are added in case a human calls the URL.

 If you define the number of channels as 1, the sensor only reads the first value. The second value is ignored. Using 3 as number of channels results in a sensor error message.

To be notified when the website content changes, you first need to configure a Trigger 'change notification' in the sensor's settings and then the notification itself.

 For more information, see section [Notification Triggers Settings](#) .

Performance Monitoring

The HTTP Transaction sensor checks if a web shop is working as expected: with a series of requests, for example, you can simulate the login, purchasing, and shipping processes. Only if all actions can be completed successfully in a row, the check returns an "OK" message. If anything goes wrong, you are immediately alerted and can react instantly to avoid loss of earnings for your company because the web shop is unavailable or very slow.

Apache Web Server Monitoring

The HTTP Apache ModStatus PerfStats and HTTP Apache ModStatus Totals sensors monitor performance statistics and the activity of an Apache web server using mod_status over HTTP. Among other HTTP sensors, these sensors let you enter credentials for web pages that need authentication and let you choose the necessary authentication method.

Security Monitoring

PRTG also provides the option to monitor the security of your website by checking the status of Secure Sockets Layer (SSL) certificates and the security of a connection.

- [SSL Certificate sensor](#)³³⁰²: monitors the certificate of an SSL/TLS-secured connection. For example, it displays whether a certificate has been revoked, or is trusted as root authority, or is self-signed.
- [SSL Security Check sensor](#)³³¹⁵: monitors the SSL connectivity to the port of a device. It tries to connect to the specified TCP/IP port number of a device with different SSL/TLS versions and shows if a specific protocol is supported.

Push Monitoring

PRTG provides the option to monitor passively received data. For this purpose, you can set up a device in a way that it automatically sends the data to PRTG. Specific sensors can receive this data and alert you based on your individual settings. For example, all Linux/Unix and most network devices support remote devices generating data, which has to be configured on each device, and sending the messages to a probe system. Usually, only the destination IP and port are required.

■ For more information, see section [Monitoring via Push](#)⁴³³⁵.

Other Data

You can also monitor other types of data from your website, for example the number of website visitors via the HTTP XML/REST Value sensor. The sensor lets you monitor values within the returned Extensible Markup Language (XML) code, provided your web analytics tool has an XML export option. The HTTP Data Advanced sensor accesses a web server and retrieves XML or JavaScript Object Notation (JSON) encoded data.

The REST Custom sensor queries a Representational State Transfer (REST) application programming interface (API) endpoint and maps the JSON or XML result to sensor values. The mapping rule has to be available as a REST configuration file in JSON template (*.template) format according to the PRTG API definition.

■ For details about the return value format, see section [Custom Sensors](#)⁴⁴⁴⁰.

HTTP Status Codes

The HTTP sensors show their status depending on the HTTP status codes that they receive. By default, the sensor states are the following:

HTTP Status Code	HTTP Sensor Status
2xx Success	Up (Green)

HTTP Status Code	HTTP Sensor Status
3xx Redirection	Warning (Yellow), Down (Red) for too many redirects)
4xx Client Error	Down (Red)
5xx Server Error	Down (Red)

i You need to configure your HTTP sensors manually only if you want to change these default reactions. In this case, you can change the sensor status based on limits and/or keyword checks.

Other HTTP Sensor Settings

- **Server Name Identification (SNI):** You can configure SNI, which has to be a fully qualified domain name (FQDN) and must match the configuration of the target server. For details, see the Knowledge Base: [My HTTP sensors fail to monitor websites which use SNI. What can I do?](#)
- **HTTP Version:** You can choose the HTTP version that the sensor uses when connecting to the target URL.
- **Authentication Method:** You can define if the configured URL needs authentication, enter credentials, and choose an authentication method.
- **Custom User Agent:** You can enter a string to be used as user agent when connecting to the target URL.
- **Custom HTTP Headers:** You can send custom HTTP headers to the target URL.

HTTP Sensor Troubleshooting

For troubleshooting and other tips for monitoring with HTTP sensors, see [More](#)⁴³⁴³ below.

More

KNOWLEDGE BASE

My HTTP sensors fail to monitor websites which use SNI. What can I do?

- <https://kb.paessler.com/en/topic/67398>

Which user agent should I use in the HTTP Advanced sensor's settings?

- <https://kb.paessler.com/en/topic/30593>

HTTP Full Web Page sensor is "unable to navigate". What can I do?

- <https://kb.paessler.com/en/topic/59999>

What to do when I see a CreateUniqueTempDir() error message for my HTTP Full Web Page sensor?

- <https://kb.paessler.com/en/topic/40783>

Where can I find more information about the HTTP XML/REST Value sensor?

- <https://kb.paessler.com/en/topic/62463>

Why does my HTTP XML/REST Value sensor return a 404 error?

- <https://kb.paessler.com/en/topic/46503>

Part 13

PRTG Administration Tool

13 PRTG Administration Tool

The PRTG Administration Tool is part of every PRTG installation. You can use it to edit the administrative settings of local probe and remote probe installations.

You can start the PRTG Administration Tool from the Windows Start menu on the PRTG core server system or on the remote probe system. If you start the PRTG Administration Tool on the PRTG core server system, you can change settings that affect the entire installation and the local probe. If you run the PRTG Administration Tool on a remote probe system, you can only change settings that are related to the remote probe.


Any settings that you change require a restart of the affected PRTG core server service and PRTG probe service to apply any changes to the configuration.

- ① You can also change many administrative settings via the [Setup](#)⁴¹²¹ in the PRTG web interface. For probes, administrative settings are also available on the [Settings tab](#)⁴⁰⁹ in the PRTG web interface.
- ① You can review the history of all changes to the settings of the PRTG Administration Tool in the \Logs\serveradmin subfolder of the [PRTG program directory](#)⁴⁵²⁶. The name of the corresponding logfile is ServerAdmin.log.








PRTG Administration Tool


- [PRTG Administration Tool on PRTG Core Server Systems](#)⁴³⁴⁷
- [PRTG Administration Tool on Remote Probe Systems](#)⁴³⁷¹


13.1 PRTG Administration Tool on PRTG Core Server Systems

With the PRTG Administration Tool, you can define various system settings regarding the PRTG core server installation, restart services, and view log information. You can also change many of these settings via the [system administration](#)  in the PRTG web interface.

The PRTG Administration Tool has the following tabs:

- [PRTG Web Server](#) 
- [PRTG Core Server](#) 
- [Cluster](#) 
- [Administrator](#) 
- [Probe Settings for Core Connection](#) 
- [Probe Settings for Monitoring](#) 
- [Service Start/Stop](#) 
- [Logs and Info](#)

 This section describes the settings that are available in the PRTG Administration Tool when you open it on the PRTG core server system. This means that you can edit settings for the PRTG core server or PRTG web server and the local probe.

 Settings you define are only valid for the PRTG core server system on which you start the PRTG Administration Tool. Make sure that you log in to the system that you want to make changes to and open the PRTG Administration Tool there.



 This feature is not available in PRTG Hosted Monitor.

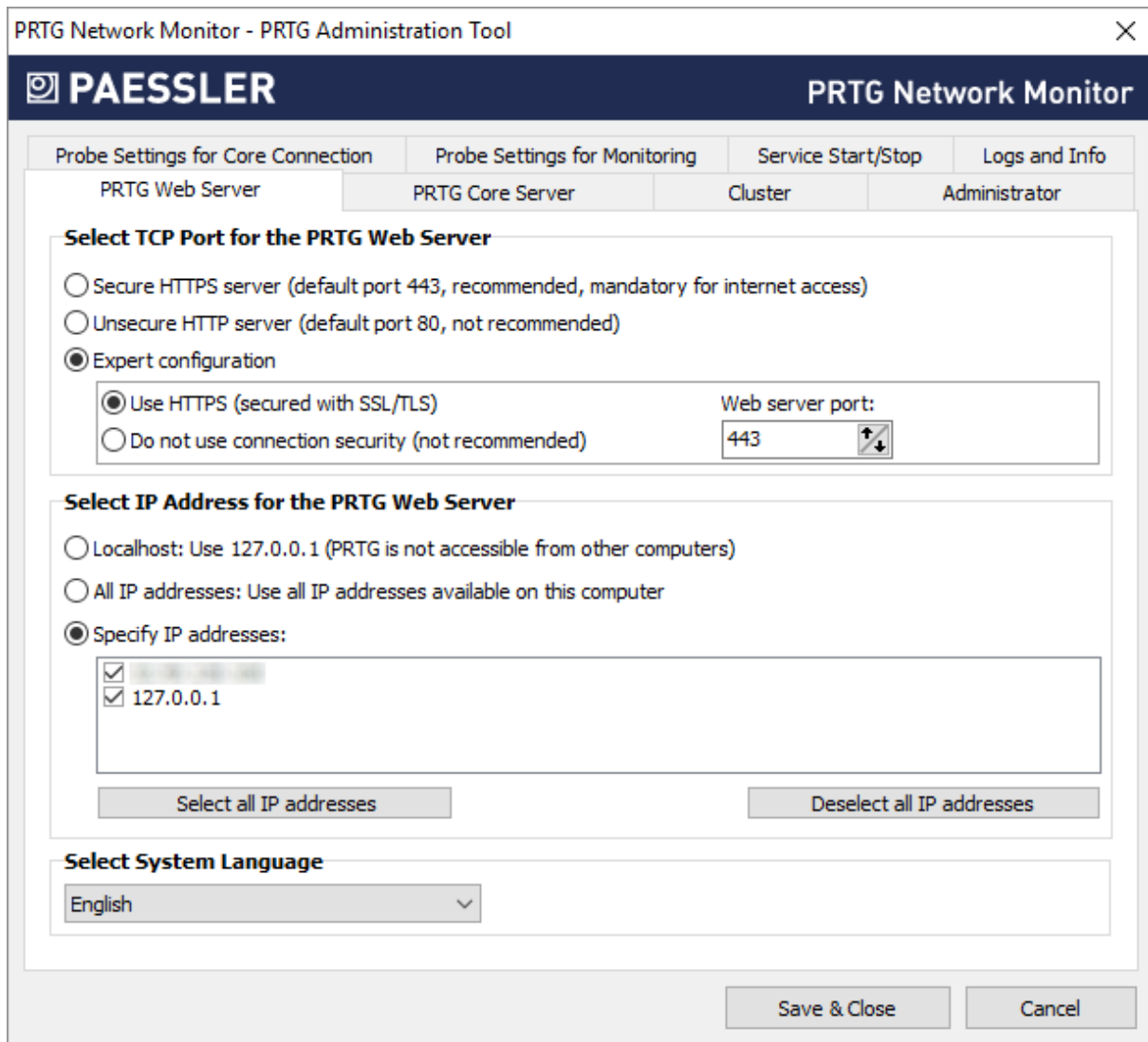
Start the PRTG Administration Tool

- From the Windows Start menu, select the PRTG Network Monitor folder and click PRTG Administration Tool to open the application.
- Confirm the question of the Windows [User Account Control](#) with Yes to allow the PRTG Administration Tool to start.

PRTG Web Server

Edit IP addresses, ports, access methods, and language for the PRTG web interface.

 You can also change these settings under Setup | System Administration | User Interface in the PRTG web interface. For more information, see section [User Interface](#) .



PRTG Web Server Tab

Setting	Description
Select TCP Port for the PRTG Web Server	The PRTG web server provides access via the PRTG web interface and PRTG Desktop ⁴²⁷⁵ . Specify on which port the PRTG web server runs:

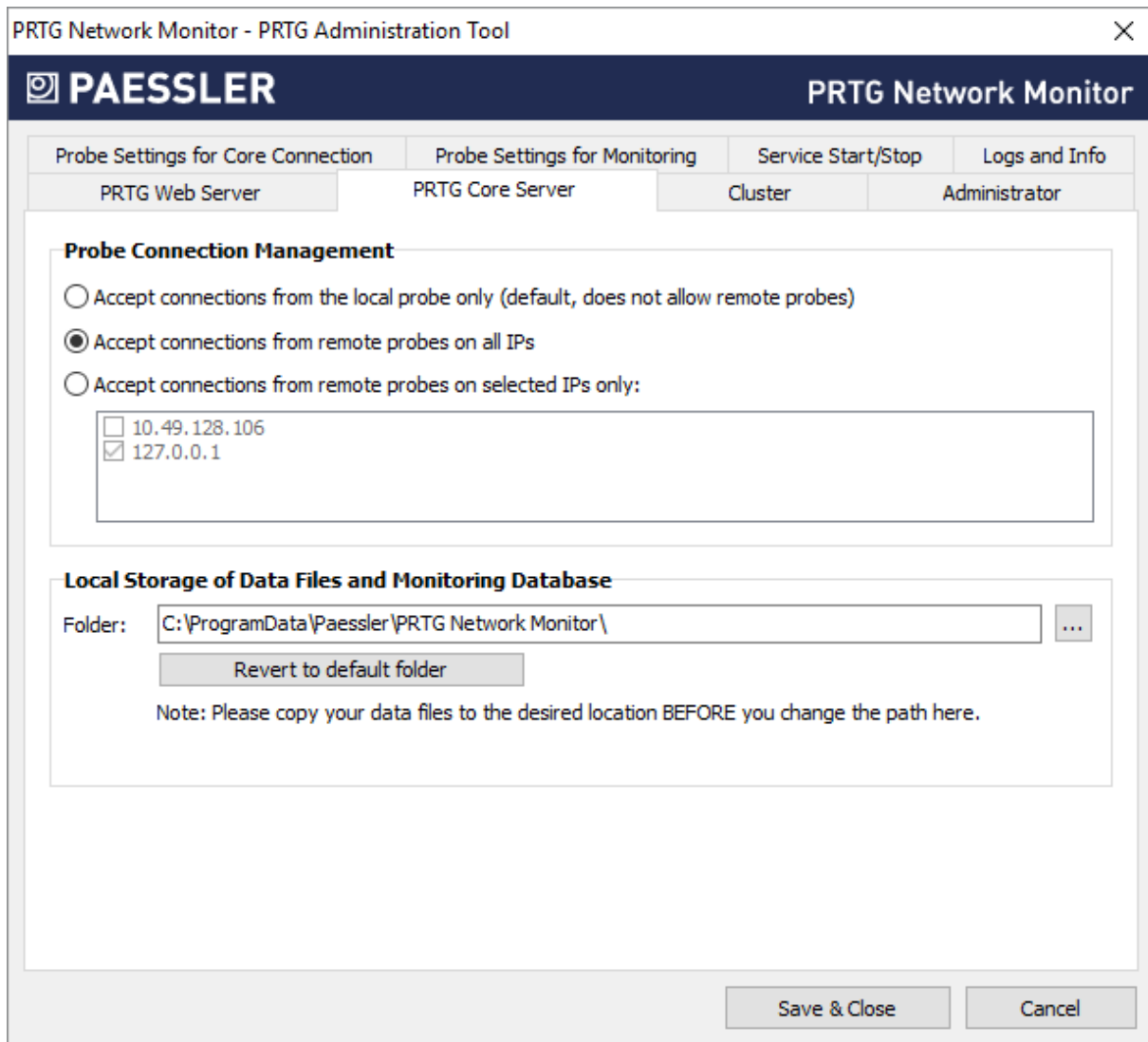
Setting	Description
	<ul style="list-style-type: none"> ▪ Secure HTTPS server (port 443, recommended, mandatory for internet access): This setting is required if you want to access the PRTG core server via the internet. Use a Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured HTTPS connection on port 443. <ul style="list-style-type: none"> ⓘ Although the connection is secure, you see an SSL certificate warning¹⁶⁹⁹ in your browser when you log in to the PRTG web interface because the default certificate is unknown to your browser. You can install a different SSL certificate for PRTG. For more information, see section Using Your Own SSL Certificate with the PRTG Web Server⁴⁵³⁷. ⓘ If port 80 is available, PRTG reserves it as well. If port 80 is not available, PRTG tries port 8080 as fallback. If this port is also not available, PRTG searches from port 8081 upwards for a free port. PRTG sends a ticket²⁴⁰¹ that shows you the currently used port number and switches back to port 80 as soon as it is available again. When users try to connect on port 80 via HTTP, they are redirected to port 443 via HTTPS. You can change this behavior by using a registry setting. If port 443 is not available, PRTG tries port 8443 as fallback. If this port is also not available, PRTG searches from port 8444 upwards for a free port. PRTG sends a ticket that shows you the currently used port number and switches back to port 443 as soon as it is available again. ▪ Unsecure HTTP server (default port 80, not recommended): Use the PRTG web server without SSL/TLS on port 80. This setting is not recommended for WAN connections. <ul style="list-style-type: none"> ⓘ If you use the PRTG web server without connection security on the internet, attackers could potentially spy on credentials that you enter in PRTG. We strongly recommend that you use this option only in a LAN. ▪ Expert configuration: Specify a custom port for the PRTG web server and the security of the connection. This option is intended for systems that already have a web server on the standard port. <ul style="list-style-type: none"> ⓘ If PRTG always uses a fallback port after a server restart, check for other programs that use the same port as PRTG. For example, the Microsoft Microsoft Internet Information Services (IIS) web server also uses port 80 (port 443 for secure connections) by default and blocks it. Please disable such programs and services on startup.
<p>Expert configuration: Connection security</p>	<p>This setting is only visible if you select Expert configuration above. Specify if you want to use connection security:</p> <ul style="list-style-type: none"> ▪ Use HTTPS (secured with SSL/TLS): Use a SSL/TLS secured HTTPS connection on a custom port as defined above. <ul style="list-style-type: none"> ⓘ Although the connection is secure, you see an SSL certificate warning in your browser when you log in to the PRTG web interface, because the default certificate is unknown to your browser. You can install a different SSL certificate for PRTG later. For more information, see Using Your Own SSL Certificate with the PRTG Web Server⁴⁵³⁷.

Setting	Description
Expert configuration: Web server port	<ul style="list-style-type: none"> ▪ Do not use connection security (not recommended): This setting is not recommended for WAN connections. Use the PRTG web server without SSL/TLS on a custom port as defined above. <p>i If you use the PRTG web server without connection security on the internet, attackers could potentially spy on credentials you enter into PRTG. We strongly recommend that you use this option in a LAN only.</p> <p>This setting is only visible if you select Expert configuration above. Enter the TCP port number that you want the PRTG web server to run on. Enter an integer value.</p> <p>i If you use a secure connection and port 80 is free, PRTG reserves it as well. When users try to connect on port 80 via HTTP, they are redirected to the custom port via HTTPS. You can change this behavior by using a registry setting.</p> <p>i If the defined port for a secure connection is not available, PRTG tries port 8443 as fallback. If this port is also not available, PRTG searches from port 8444 upwards for a free port. PRTG sends a ticket^[240] that shows you the currently used port number and switches back to the original port as soon as it is available again.</p>
Select IP Address for the PRTG Web Server	<p>The PRTG web server provides access via the PRTG web interface and PRTG Desktop^[4275]. Specify on which IP address the PRTG web server runs. Later, you can log in to PRTG by pointing your browser to the specified IP address.</p> <p>Choose from:</p> <ul style="list-style-type: none"> ▪ Localhost, 127.0.0.1 (PRTG is not accessible from other computers): Use 127.0.0.1 only. The PRTG web interface and PRTG Desktop are only accessible from the PRTG core server system. Either the selected port or at least one port in the range from 8080 to 8089 has to be available on 127.0.0.1. <p>i If you run PRTG on localhost, do not use the DNS name http://localhost to log in to the PRTG web server, as this might considerably slow down the PRTG web interface. Use your local IP address or http://127.0.0.1 instead.</p> <ul style="list-style-type: none"> ▪ All IP addresses: Use all IP addresses available on this computer (recommended): Use all IP addresses that are available on this computer and enable access to the PRTG web server for all of these IP addresses. <p>i The selected Transmission Control Protocol (TCP) port for the PRTG web server must be free on every available IP address.</p>

Setting	Description
	<ul style="list-style-type: none">▪ Specify IP addresses: Select specific IP addresses on which the PRTG web server runs. The list is specific to your system. Add a check mark in front of every IP address you want the PRTG web server to be available at. You can also select all addresses by clicking the Select all IP addresses button or deselect all addresses by clicking the Deselect all IP addresses button. Either the selected port or at least one port in the range from 8080 to 8089 has to be available on the specified IP address. <p>i Regardless of the selected setting above, one port in the range from 8080 to 8180 has to be available on the specified IP address so PRTG can create reports. The report engine tries to connect to the PRTG core server on one of these ports.</p> <p>i If PRTG does not find a network card on startup, it switches the IP setting to Localhost, 127.0.0.1 (PRTG is not accessible from other computers). This setting remains even if a network card is available later on. If you disabled or removed the network card on the PRTG core server system, check this setting again.</p>
Select System Language	Select the system language. The default is English. Depending on your installation, you might be able to choose other languages here. This setting defines the language of the PRTG web interface and the PRTG Administration Tool <small>4346</small> .




PRTG Core Server

Define settings for the PRTG core server.



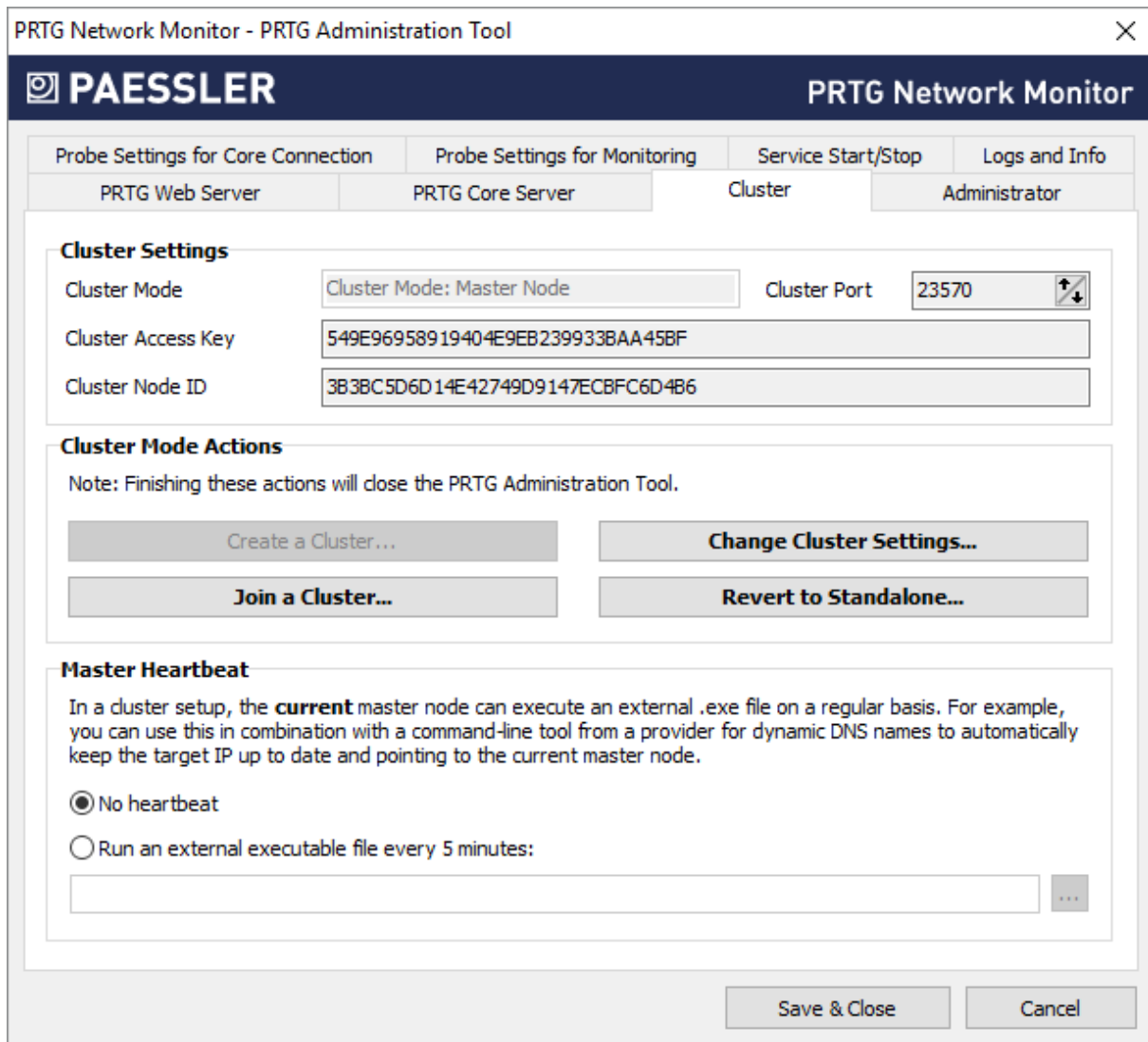
PRTG Core Server Tab

Setting	Description
Probe Connection Management	<p>Define how PRTG handles incoming connections from probes:</p> <ul style="list-style-type: none"> Accept connections from the local probe only (default, does not allow remote probes): Only accept connections from the local probe. If you select this option, you cannot use remote probes ⁴³⁵². Accept connections from remote probes on all IPs: Accept incoming connections from remote probes, no matter on which IP address of the PRTG core server they come in. Accept connections from remote probes on selected IPs only: Accept incoming connections from remote probes on the selected IP address(es) of the PRTG core server. In the list, select the IP addresses by adding a check mark in front of the desired IP addresses.

Setting	Description
	<p> You can also change this setting under Setup | System Administration | Core & Probes⁴²⁰⁴ in the PRTG web interface.</p>
Local Storage of Data Files and Monitoring Database	<p>Select the directory where PRTG stores configuration and monitoring data. Click  to choose a different folder on the system.</p> <p> Before you change the path, make sure you stop both the PRTG core server service and the PRTG probe service and copy all data to the new location.</p> <p>Click Revert to default folder to reset this setting to default.</p>






Cluster

On the Cluster tab, you can change how the PRTG core server behaves in a cluster. Before you change settings here, see section [Failover Cluster Configuration](#)⁴⁵¹³.



Cluster Tab

Setting	Description
Cluster Settings	<p>Depending on the cluster settings, different options are available.</p> <ul style="list-style-type: none"> Cluster Mode: Shows the cluster mode of the PRTG core server. Possible values are Standalone (no cluster mode), Cluster Mode: Master Node, or Cluster Mode: Failover Node. <p>i This setting is for your information only. You cannot change it.</p> <ul style="list-style-type: none"> Cluster Port: This setting is only visible if PRTG runs in cluster mode. Cluster Access Key: This setting is only visible if PRTG runs in cluster mode. Cluster Node ID: This setting is only visible if PRTG runs in cluster mode.

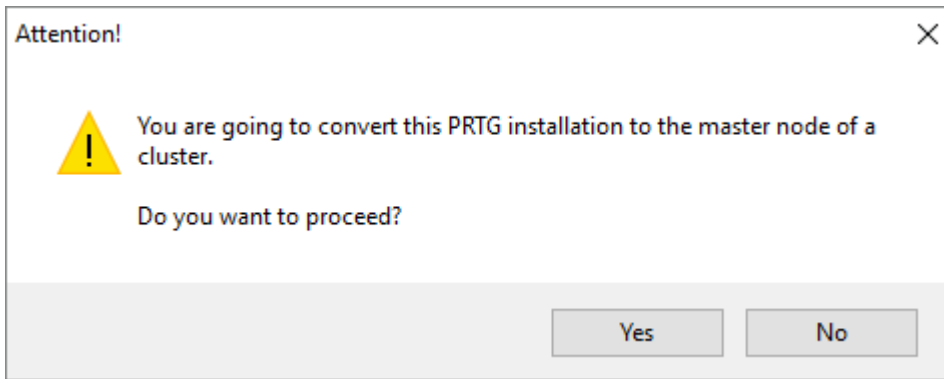
Setting	Description
	<p> This setting is for your information only. You cannot change it.</p>
Cluster Mode Actions	<p>Depending on the cluster settings, you see different active buttons.</p> <ul style="list-style-type: none"> ▪ Create a Cluster ▪ Join a Cluster ▪ Change Cluster Settings ▪ Revert to Standalone <p> For details on these options, see section Cluster Mode Actions .</p>
Master Heartbeat	<p>This section is only visible if PRTG runs in cluster mode. The current master node can execute an external executable file on a regular basis. We call this a heartbeat.</p> <p>You can use this, for example, to report the IP address of the current master node to a dynamic Domain Name System (DNS) provider, so that a DNS name is always redirected to the current master node in case the primary master node fails and a failover node (with a different IP address) becomes the current master node.</p> <p>Choose between:</p> <ul style="list-style-type: none"> ▪ No heartbeat: Do not execute a file on a regular basis. ▪ Run an external executable file every 5 minutes: Click  to browse for the file that you want to execute. This can be, for example, a command-line tool or a batch file. PRTG executes it on the current master node only, in a fixed interval of five minutes. You cannot change the interval. <p> Make sure that the selected file is available under the same (local) path on all failover nodes. In case one of your failover nodes becomes the current master node, PRTG can only execute the heartbeat reliably if the executable file exists on all of your failover nodes.</p>

Cluster Mode Actions

Follow these instructions to create or to join a cluster, to change a cluster's settings, or to revert a cluster node to standalone mode:

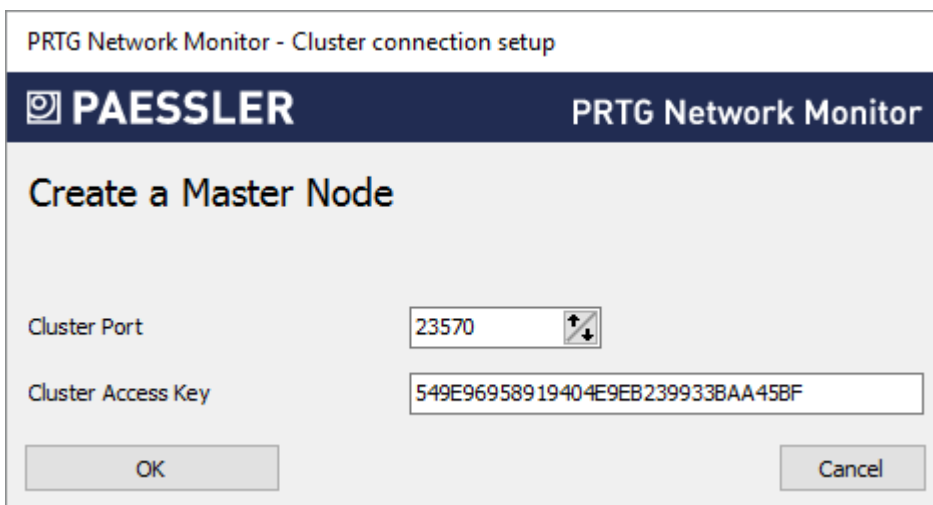
Create a Cluster

- Click Create a Cluster to create a cluster. The current PRTG core server is then the [master node](#) of the cluster.
- Click Yes to convert this installation to a master node.



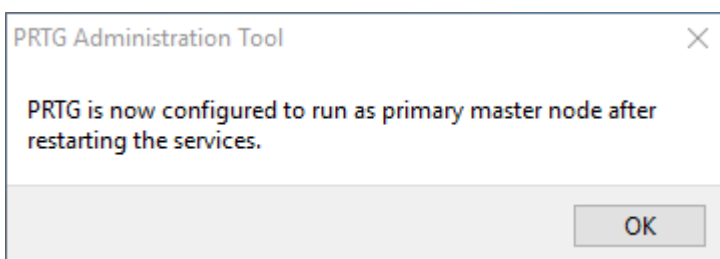
Converting an Installation to a Master Node

- A dialog box appears.



Creating a Master Node

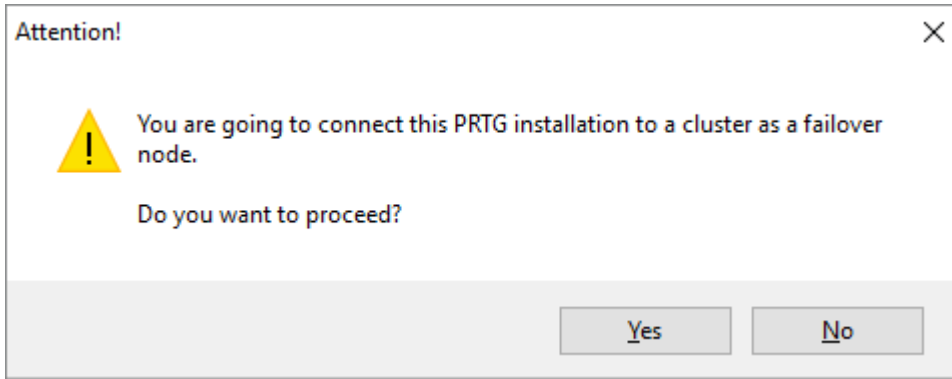
- Enter a Cluster Port. This is the port on which PRTG sends the internal communication between the cluster nodes. Make sure that connections between the cluster nodes are possible on the selected port.
- Enter or paste a Cluster Access Key. This is a unique access key. All cluster nodes must use the same cluster access key to join the cluster. Connection attempts with a different access key are not possible. We recommend that you use the default value.
 - Save the Cluster Access Key so that you have it at hand when you configure the failover nodes.
- After confirming your settings, you are asked to restart Windows services. Click OK to restart the Windows services so that your changes take effect.



Restart Services to Apply Changes

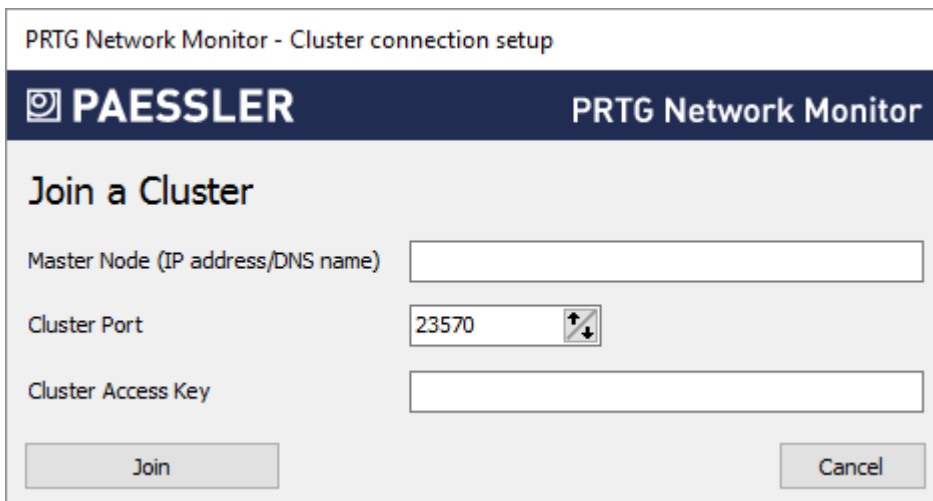
Join a Cluster

- Click Join a Cluster to add this installation to a cluster that already has a [master node](#). The current PRTG core server is then a [failover node](#).
- This button is also available if the PRTG core server is in Cluster Mode: Master Node. This option then changes the master node to a failover node.
- Click Yes to convert this installation into a failover node.



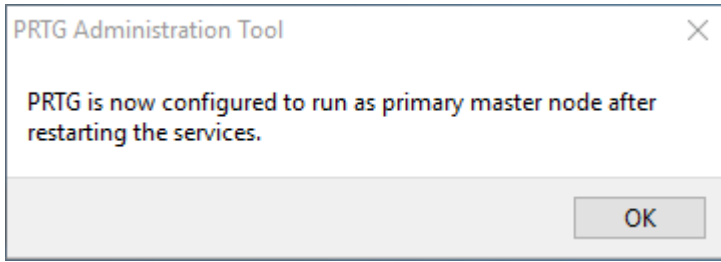
Converting an Installation to a Failover Node

- A dialog box appears.



Cluster Connection Setup

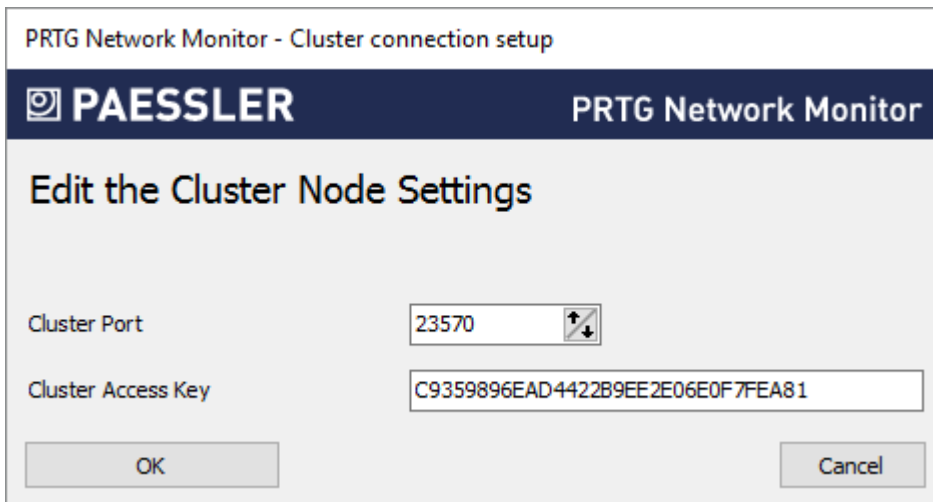
- Enter a Master Node (IP address/DNS name) for the cluster. It must be reachable from the machine that runs the failover node.
- Enter the other settings as defined in the settings of the [master node](#). Make sure that you use the same settings on all cluster nodes.
- Enter a Cluster Port. This is the port on which PRTG sends the internal communication between the cluster nodes. Make sure that connections between the cluster nodes are possible on the selected port.
- Enter or paste a Cluster Access Key. This is a unique access key. All cluster nodes must use the same cluster access key to join the cluster. Connection attempts with a different access key are not possible. We recommend that you use the default value.
 - After confirming your settings, you are asked to restart Windows services. Click OK to restart the Windows services so that your changes take effect.



Restart Services to Apply Changes

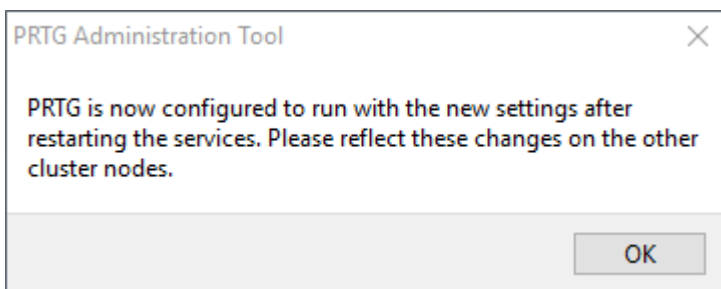
Change Cluster Settings

- If you run PRTG in cluster mode, you can change the settings. Click Change Cluster Settings to do so.
- A dialog box appears.



Edit Cluster Node Settings

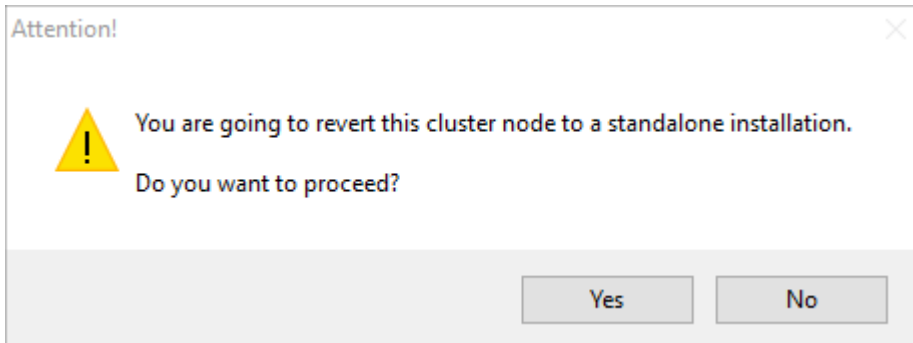
- Enter a Cluster Port. This is the port on which PRTG sends the internal communication between the cluster nodes. Make sure that connections between the cluster nodes are possible on the selected port.
- Enter or paste a Cluster Access Key. This is a unique access key. All cluster nodes must use the same cluster access key to join the cluster. Connection attempts with a different access key are not possible. We recommend that you use the default value.
 - ⓘ ▪ Make sure that you use the same settings on all cluster nodes.
- After confirming your settings, you are asked to restart Windows services. Click OK to restart the Windows services so that your changes take effect.



Restart Services to Apply Changes

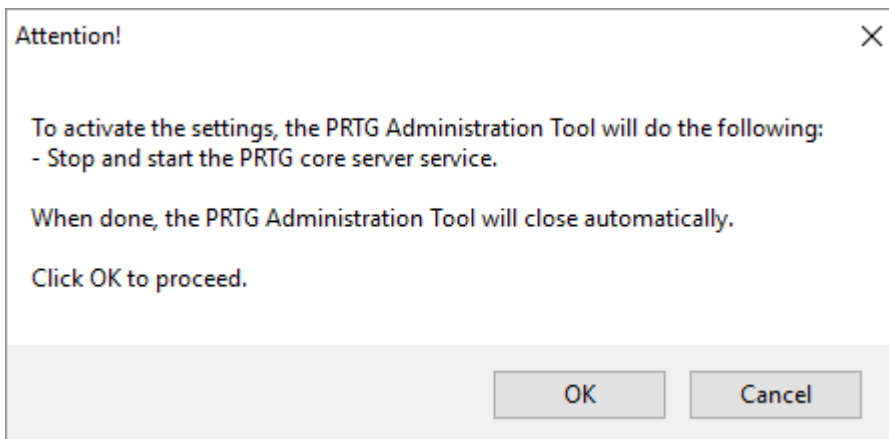
Revert to Standalone

- Click Revert to Standalone to revert this cluster node to a standalone installation.
- A dialog box appears.



Revert Cluster to Standalone Installation

- Click Yes to convert this cluster node to a standalone installation.
- A dialog box appears where PRTG asks you to agree to restart the PRTG core server service. Click OK to proceed.



Restart Services

- ① When you revert a cluster node to Standalone mode, the cluster probe remains in the device tree to keep your device and sensor setup. If you want to completely remove the cluster probe from the device tree, you need to delete it manually.

Administrator


On the Administrator tab, you can change settings for the PRTG System Administrator user.

- ① You can also change the password for the [PRTG System Administrator](#) user account under Setup | Account Settings | [My Account](#)^[4124] in the PRTG web interface.

The screenshot shows a window titled "PRTG Network Monitor - PRTG Administration Tool". The window has a dark blue header with the PAESSLER logo and "PRTG Network Monitor". Below the header are several tabs: "Probe Settings for Core Connection", "Probe Settings for Monitoring", "Service Start/Stop", and "Logs and Info". Underneath these are sub-tabs: "PRTG Web Server", "PRTG Core Server", "Cluster", and "Administrator". The "Administrator" tab is active, showing a section titled "Login Credentials for the PRTG System Administrator User Account". This section contains three input fields: "Email Address" with the value "john.q.public@example.com", "Login Name" with the value "prtgadmin", and "Password" with a masked value "*****". A "Generate new password" button is located to the right of the password field. At the bottom of the window are "Save & Close" and "Cancel" buttons.

Administrator Tab

Setting	Description
Email Address	Enter a valid email address for the PRTG System Administrator user account. By default, PRTG sends notifications and important messages to this address.
Login Name	Enter a login name for the PRTG System Administrator user account. You use it when you log in to the PRTG web interface or PRTG Desktop. ⓘ The default login name is prtgadmin .
Password	Click Generate new password and confirm to generate a new password for the PRTG System Administrator user account. Click Save & Close to set the new password. You use it when you log in to the PRTG web interface or PRTG Desktop.

Setting	Description
	 The default password is prtgadmin .

Probe Settings for Core Connection

Define general settings regarding the local probe and connections.

Probe Settings for Core Connection Tab

Probe Settings

Setting	Description
Name of Probe	<p>Enter a meaningful name to identify the local probe. PRTG shows this name, for example, in the device tree, and in all alarms by default. Enter a string.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({}). For more information, see the Knowledge Base: What security features does PRTG include?</p>
Reconnect Time	<p>Define the time that PRTG waits for the local probe to reconnect to the PRTG core server if the connection fails. Enter an integer value.</p>

Connection to PRTG Core Server

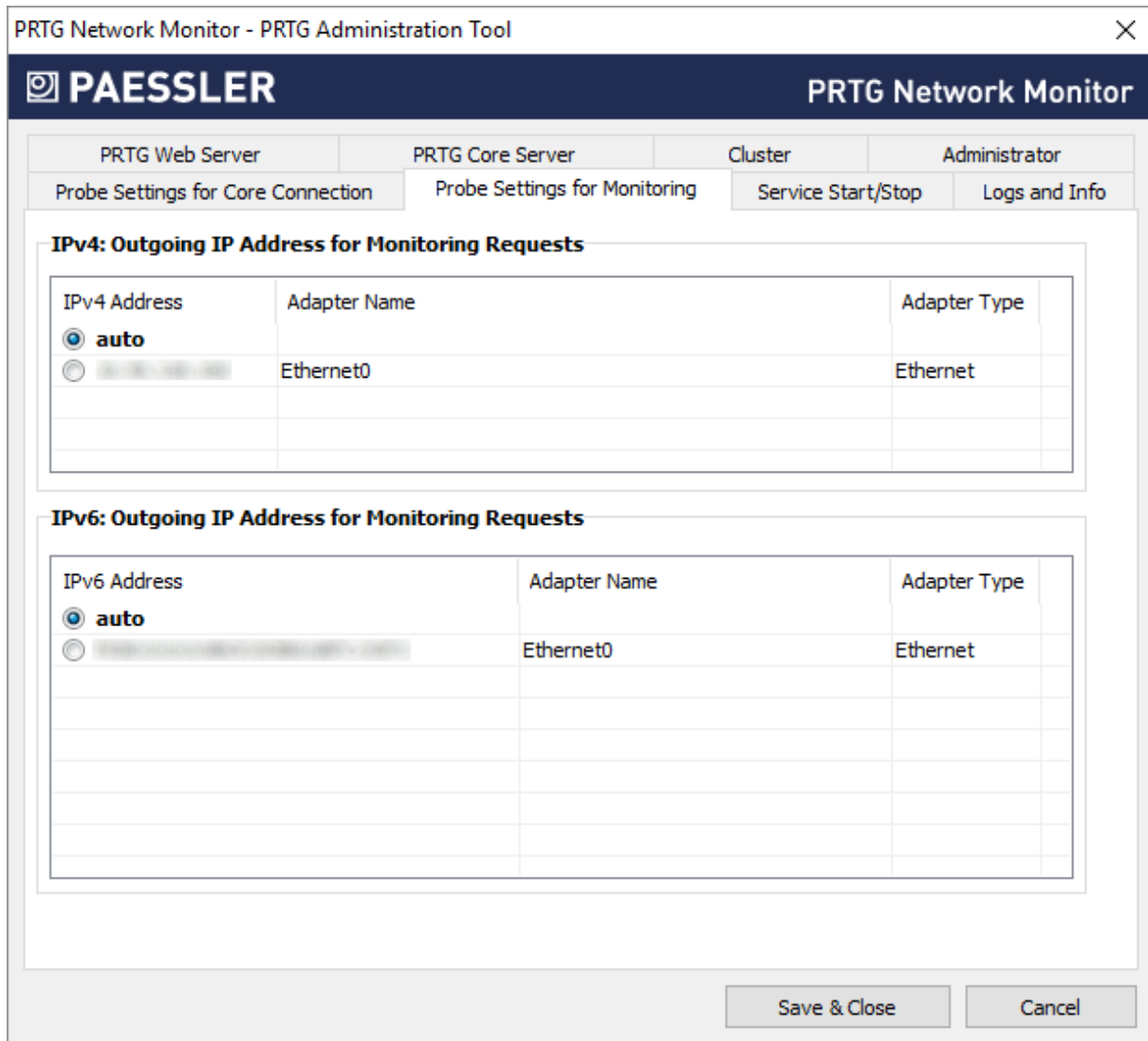
These settings affect the way that the local probe connects to the PRTG core server.

Setting	Description
Server (IPv4 Address or DNS Name)	<p>The local probe connects to the PRTG core server via 127.0.0.1. You cannot change this.</p>
Probe GUID	<p>The probe GUID is a unique identifier for the local probe. You cannot change the GUID on the PRTG core server system.</p> <p>i Edit GUID and Generate new GUID are only available on the remote probe system. For more information, see section PRTG Administration Tool on Remote Probe Systems⁴³⁷¹.</p> <p>i You can deny GUIDs under Setup | System Administration | Core & Probes⁴²⁰⁴ in the PRTG web interface.</p>
Probe Access Key	<p>Probe Access Key is only available on the remote probe system.</p> <p>i For more information, see section PRTG Administration Tool on Remote Probe Systems⁴³⁷¹.</p>
Confirm Access Key	<p>Confirm Access Key is only available on the remote probe system.</p> <p>i For more information, see section PRTG Administration Tool on Remote Probe Systems⁴³⁷¹.</p>

Path for the PRTG Data Directory on the Probe System

Setting	Description
Path	This setting is not available on the PRTG core server system. Please use Local Storage of Data Files and Monitoring Database on the PRTG Core Server ⁴³⁶³ tab instead.

Probe Settings for Monitoring




Probe Settings for Monitoring Tab

Define the IP address to use for outgoing monitoring requests.

- If more than one IP is available on the system, you can specify the IP address that PRTG uses for the outgoing monitoring requests of certain sensors.
- This setting is for sensors that use the following connection types: HTTP, Domain Name System (DNS), File Transfer Protocol (FTP), Internet Message Access Protocol (IMAP), Post Office Protocol version 3 (POP3), port, remote desktop, Simple Mail Transfer Protocol (SMTP), and Simple Network Management Protocol (SNMP).

- The setting is valid for all monitoring requests that this probe sends.
 - This setting is useful for devices that expect a certain IP address when they are queried.
 - The default setting is auto. PRTG automatically selects an IP address.
- i** This feature does not support all sensors for technical reasons.
- i** If you change this setting, some sensors might stop working. For example, sensors might show the Down status if the selected IP address is blocked on the way to or directly on the monitored device.

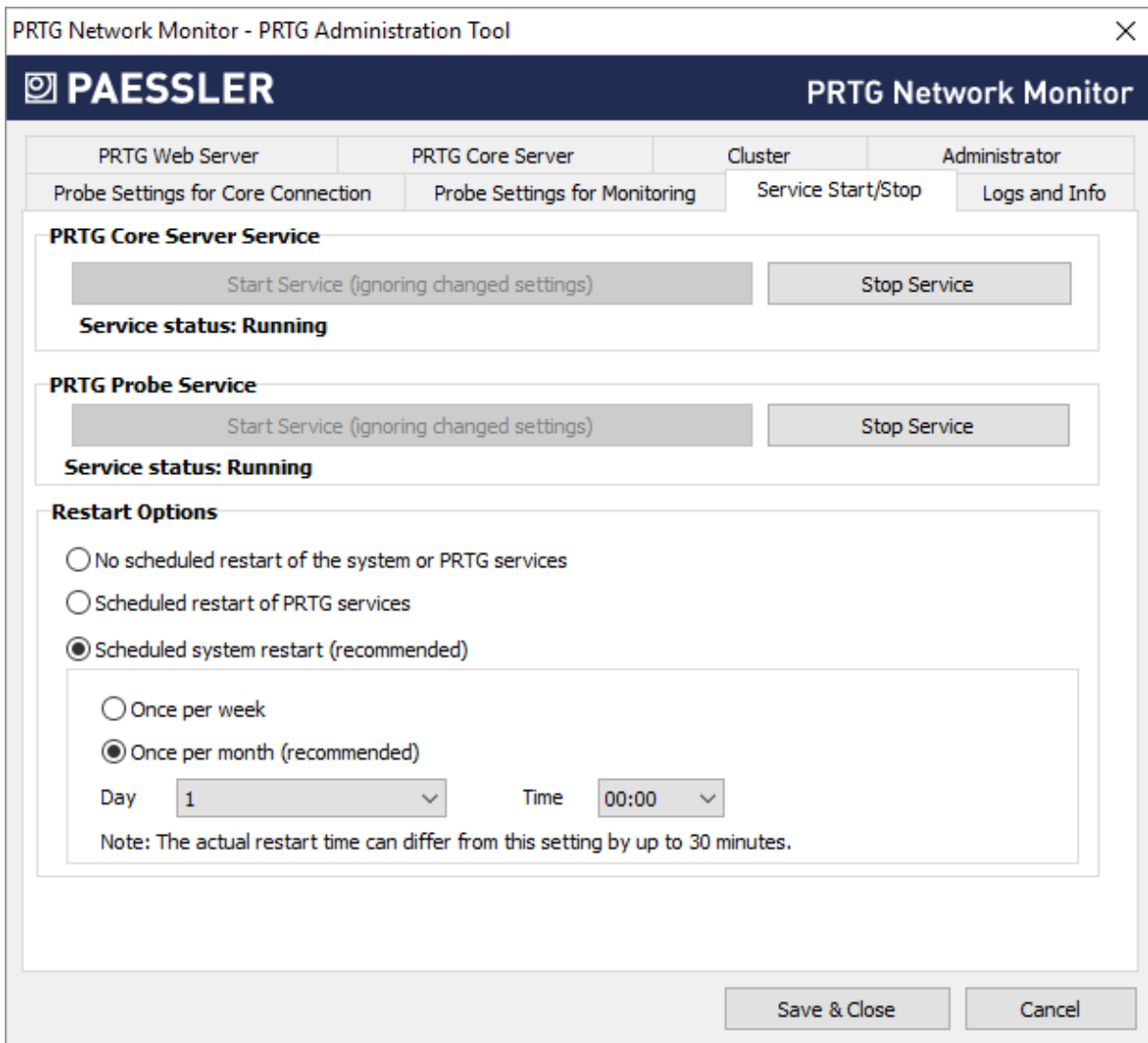
Setting	Description
IPv4: Outgoing IP Address for Monitoring Requests	Define the IP address for outgoing requests that use the IPv4 protocol. The list shows all available IP addresses on the system. Choose a specific IP address or select auto.
IPv6: Outgoing IP Address for Monitoring Requests	Define the IP address for outgoing requests that use the IPv6 protocol. The list shows all available IP addresses on the system. Choose a specific IP address or select auto.

 For more information, see section [IPv6 Support](#) ¹⁶¹.

Service Start/Stop

You can manually start and stop the PRTG core server service and PRTG probe service. Click the respective buttons to start or stop the respective service. Both actions usually take from a few seconds up to several minutes. You can also restart the PRTG core server service and PRTG probe service under Setup | System Administration | [Administrative Tools](#) ⁴²⁵ in the PRTG web interface.

- i** We recommend that you schedule automatic system restarts.



Service Start/Stop Tab

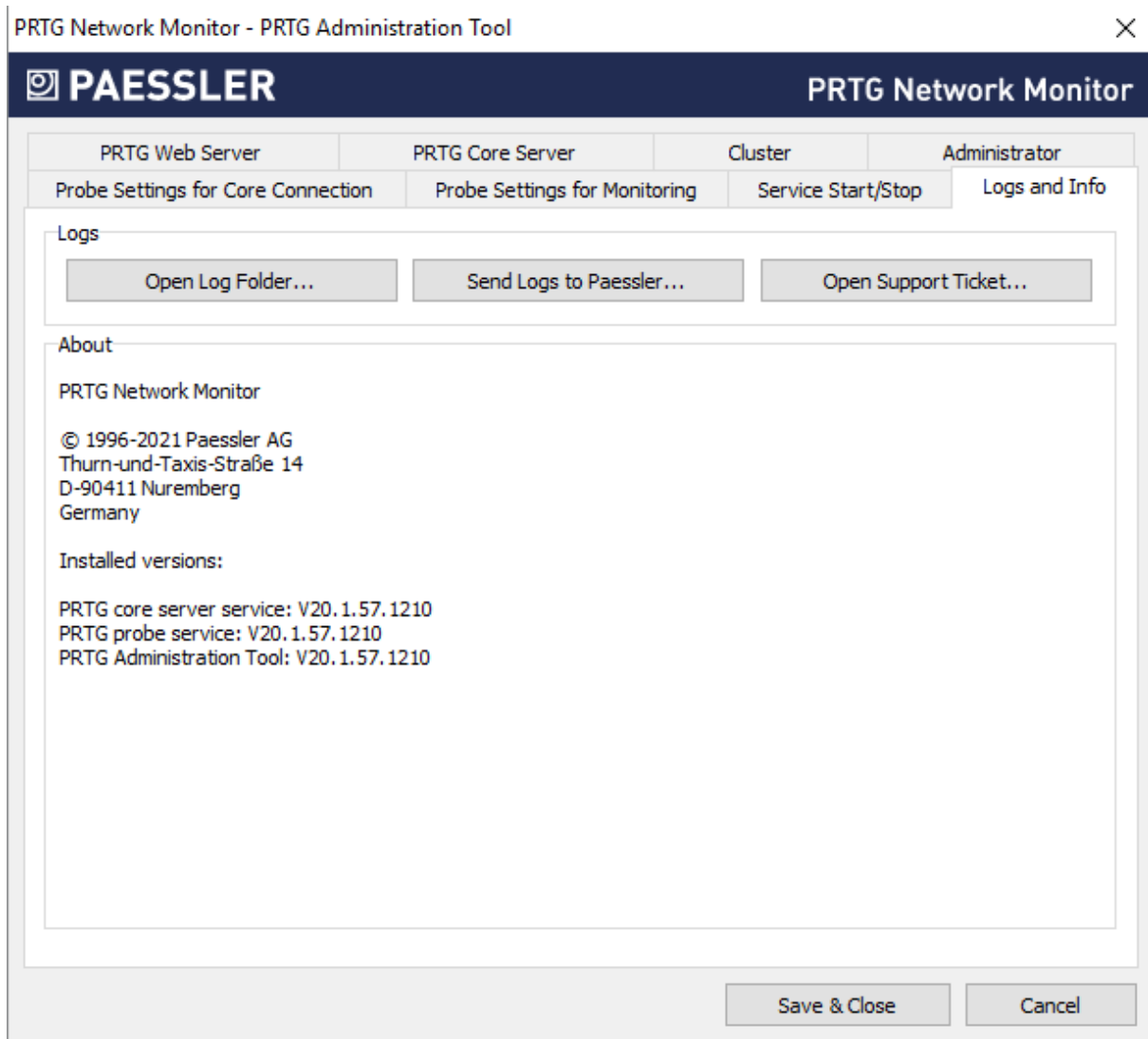
Restart Options

Setting	Description
Restart Options	<p>Define if you want to schedule an automatic restart:</p> <ul style="list-style-type: none"> ▪ No scheduled restart of the system or PRTG services: Do not automatically perform a scheduled restart of services. We recommend that you manually restart the PRTG core server system every few weeks. You can also restart the PRTG core server service and PRTG probe service under Administrative Tools⁴²²⁵ in the PRTG web interface. ▪ Scheduled restart of PRTG services: Restart the PRTG core server service on the PRTG core server system. If you select this option, the PRTG probe service restarts as well. Define a schedule under Restart Schedule.

Setting	Description
	<p>☁ This setting is not available on the hosted probe of a PRTG Hosted Monitor instance.</p> <ul style="list-style-type: none"> ▪ Scheduled system restart (recommended): Define a schedule under Restart Schedule. We recommend that you restart PRTG core server systems once a month for best performance.
Restart Schedule	<p>This setting is only visible if you select a schedule option above. Choose how often you want to restart the PRTG core server service, PRTG probe service, or the PRTG core server system:</p> <ul style="list-style-type: none"> ▪ Once per week: Select a day and a time below. ▪ Once per month (recommended): Select a day of the month and a time below.
Day	<p>This setting is only visible if you select a schedule option above. Select a day of the week (Monday to Sunday) or month (1st to 30th or Last). If you select Last, PRTG restarts the PRTG core server system on the last day of the month, regardless of how many days the month has.</p> <p>ⓘ If you select a date that does not exist in every month (for example, the 30th day in February), PRTG automatically restarts the PRTG core server system on the last day of this month.</p>
Time	<p>This setting is only visible if you select a schedule option above. Select the time of the day when PRTG restarts the PRTG core server system.</p> <p>ⓘ You get a Windows warning message 10 minutes before the restart to inform you about the restart if you are logged in to PRTG. The actual restart time can differ by up to 30 minutes from the time you enter here.</p>

ⓘ You can also define a restart schedule on the [Settings](#) ⁴¹⁰ tab of a remote probe in the PRTG web interface.


Logs and Info



Logs and Info Tab

Logs

Button	Description
Open Log Folder	Open the PRTG data directory ⁴⁵²⁶ to access all logs that PRTG creates.
Send Logs to Paessler	Open an assistant to send logs to the Paessler support team. See Send Logs to Paessler ⁴³⁶⁸ for details. i You can also send logs with the support bundle via Contact Support ⁴²⁷¹ in the PRTG web interface.
Open Support Ticket	Open the support form on the Paessler website in a browser window.

Button	Description
	<p> If you need help, we recommend that you use the Contact Support option in the PRTG web interface instead.</p>

About

The About section shows information about the version of installed PRTG programs and copyright information.

Send Logs to Paessler

 You can also send logs with the support bundle via Contact Support in the PRTG web interface.

Send Logs to Paessler

PAESSLER PRTG Network Monitor

Send Logs to Paessler

Name

Email

Ticket#

Please supply your ticket number (PAEXXXX) if you already have an open support ticket.

Configuration Include configuration file (contains passwords)

Note: All passwords used in PRTG are encrypted in the configuration file, but SNMP communities and hostnames may be written in plain text.

If you click the "Send" button, this program will upload the relevant logfiles and, if selected, the configuration file of your PRTG installation to the Paessler FTP server and support ticket system.

Please ensure that outgoing FTP and HTTP connections are enabled on this machine.

Note: Support communication can only be provided in English or German!

Send Logs to Paessler

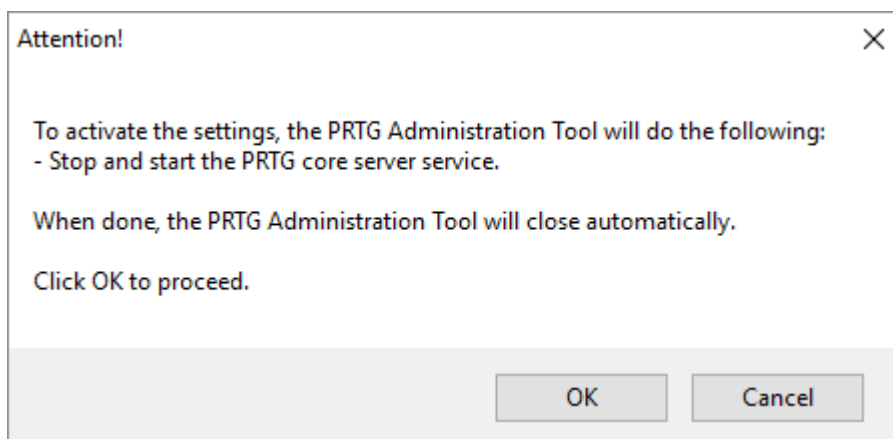
If you open a support ticket, the Paessler support team might ask you to send logs for further analysis.

Field	Description
Name	Enter your name.
Email	Enter a valid email address. You can provide any email address but we recommend that you use the email address of your user account, which PRTG enters by default.
Ticket #	<p>This field is optional. If you have already opened a ticket with the Paessler support team, provide the ticket number you received. Your files are then automatically associated with your ticket.</p> <p>Enter the ticket number starting with PAE followed by four or more digits, for example, PAE12345. If you do not have a ticket number, leave this field empty.</p>
Configuration	Define if you want to include the configuration file. PRTG removes all passwords from the configuration file before sending it to the Paessler support team.

Click Send to start the data upload. PRTG then automatically collects, compresses, and sends your logs to our FTP over SSL (FTPS) server. Ensure that FTPS and HTTP connections are allowed on the remote probe system.

Activate Changed Settings

After you change settings, click Save & Close. A new dialog box appears where PRTG asks you to agree to restart the PRTG core server service. Click OK to proceed.



Restart Services

More

 KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Which ports does PRTG use on my system?


- <https://kb.paessler.com/en/topic/61462>


13.2 PRTG Administration Tool on Remote Probe Systems

If you start the PRTG Administration Tool on a remote probe system, you can define various probe-related settings, restart services, and view log information. You can also change many of these settings via the [system administration](#)⁴¹⁷⁵ and the [probe settings](#)⁴⁰⁹ in the PRTG web interface.

The PRTG Administration Tool has the following tabs:

- [Probe Settings for Core Connection](#)⁴³⁷¹
- [Probe Settings for Monitoring](#)⁴³⁷⁵
- [Service Start/Stop](#)⁴³⁷⁶
- [Logs and Info](#)

 This section describes the available settings in the PRTG Administration Tool when you open it on a remote probe system. This is not the complete set of available settings. If you need access to all settings regarding the entire PRTG installation, open the PRTG Administration Tool on the PRTG core server system.

 Settings you make here are only valid for the remote probe system on which you open the PRTG Administration Tool. Make sure that you log in to the system that you want to make changes to and open the PRTG Administration Tool there.

Start the PRTG Administration Tool

- From the Windows Start menu, select the PRTG Network Monitor folder and click PRTG Administration Tool to open the application.
- Confirm the question of the Windows [User Account Control](#) with Yes to allow the PRTG Administration Tool to start.

Probe Settings for Core Connection

Define general settings regarding the remote probe and connections.

Probe Settings for Core Connection Tab

Probe Settings

Setting	Description
Name of Probe	<p>Enter a meaningful name to identify the remote probe. PRTG shows this name, for example, in the device tree, and in all alarms by default. Enter a string.</p> <p>i If the name contains angle brackets (<>), PRTG replaces them with braces ({} for security reasons. For more information, see the Knowledge Base: What security features does PRTG include?</p>



Setting	Description
Reconnect Time	Define the time that PRTG waits for the remote probe to reconnect to the PRTG core server if the connection fails. Enter an integer value.

Connection to PRTG Core Server

These settings affect the way the remote probe connects to the PRTG core server.

Setting	Description
Server (IPv4 Address or DNS Name)	Enter the IP address or Domain Name System (DNS) name of the PRTG core server.
Probe GID	<p>The probe GID (global ID (GID)) is a unique identifier for the remote probe. We recommend that you do not change it.</p> <p>Exceptions: If you substitute a remote probe from a different computer, you have to copy the GID from the old probe to the new probe. To do so, click Edit GID and confirm the warning with Yes. You can then change the GID. PRTG checks if the GID is valid. You can also generate a new GID if necessary. To do so, click Generate new GID and confirm the warning with Yes.</p> <p>i You can deny GIDs under Setup | System Administration | Core & Probes⁴²⁰⁴ in the PRTG web interface. If you remove a remote probe from the device tree or if you deny a remote probe after installation¹¹², PRTG automatically enters its GID in the Deny GIDs list.</p>
Probe Access Key	<p>The probe access key must match one of the access keys in the PRTG core server installation. If it does not match, the remote probe is not able to connect to the PRTG core server.</p> <p>■ For more information, see section Core & Probes⁴²⁰⁴.</p> <p>i Also check the allowed and denied IPs in the Core & Probes⁴²⁰⁴ settings to ensure that the PRTG core server accepts the IP address of the remote probe.</p>
Confirm Access Key	If you enter an access key for a remote probe, enter it in this field again to confirm it.

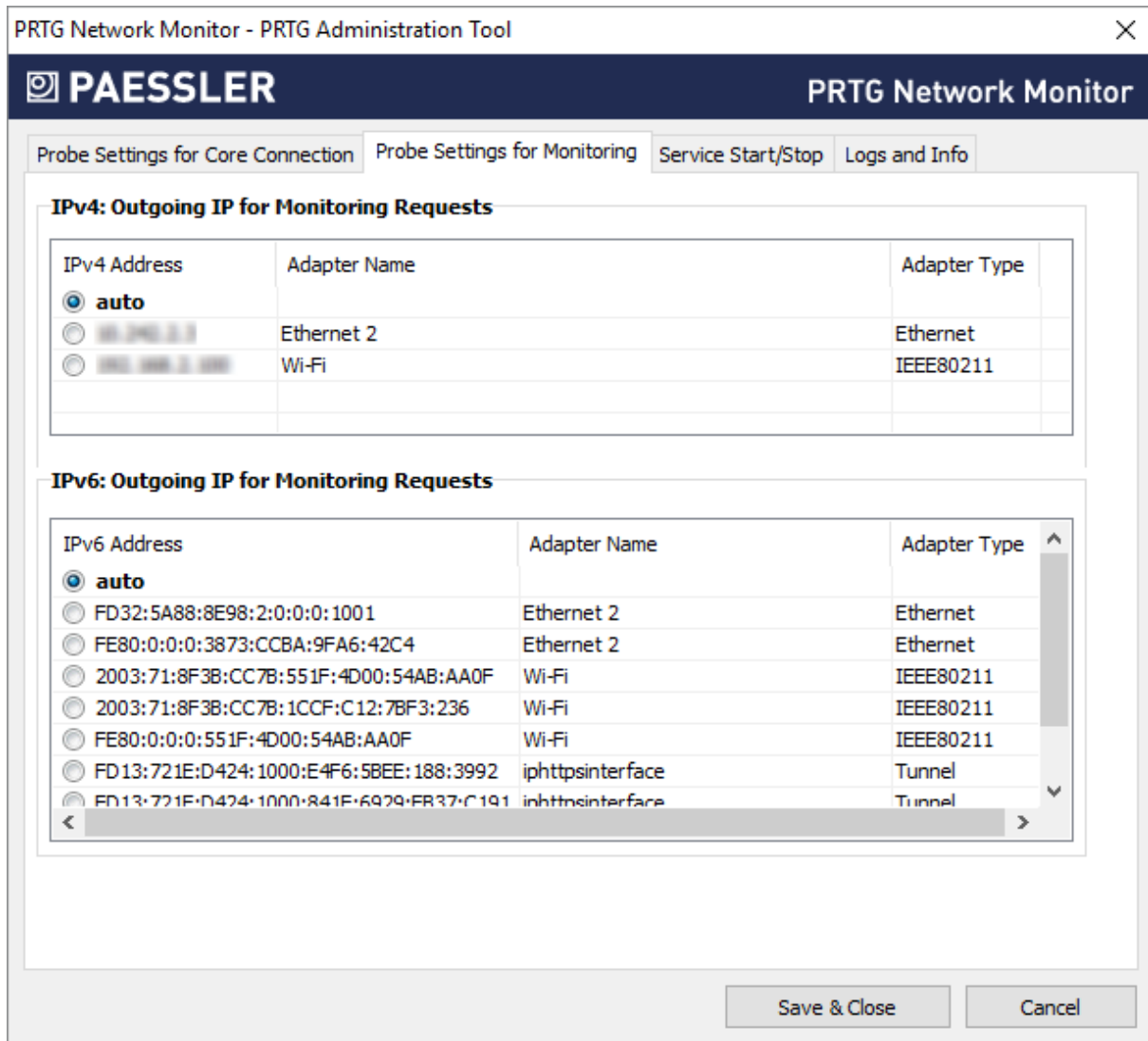
Path for the PRTG Data Directory on the Probe System

Setting	Description
Path	<p>Select the directory where PRTG stores configuration and monitoring data. Click  to choose a different folder on the system.</p> <p> Before you change the path, make sure you stop both the PRTG core server service and the PRTG probe service and copy all data to the new location.</p>

Language for the PRTG Administration Tool for Remote Probes

Setting	Description
[your language]	<p>Choose the language for the PRTG Administration Tool on the remote probe. The default is English.</p>

Probe Settings for Monitoring




Probe Settings for Monitoring Tab

Define the IP address to use for outgoing monitoring requests.

- If more than one IP is available on the system, you can specify the IP address that PRTG uses for the outgoing monitoring requests of certain sensors.
- This setting is for sensors that use the following connection types: HTTP, Domain Name System (DNS), File Transfer Protocol (FTP), Internet Message Access Protocol (IMAP), Post Office Protocol version 3 (POP3), port, remote desktop, Simple Mail Transfer Protocol (SMTP), and Simple Network Management Protocol (SNMP).
- The setting is valid for all monitoring requests that this probe sends.
- This setting is useful for devices that expect a certain IP address when they are queried.
- The default setting is auto. PRTG automatically selects an IP address.

i This feature does not support all sensors for technical reasons.

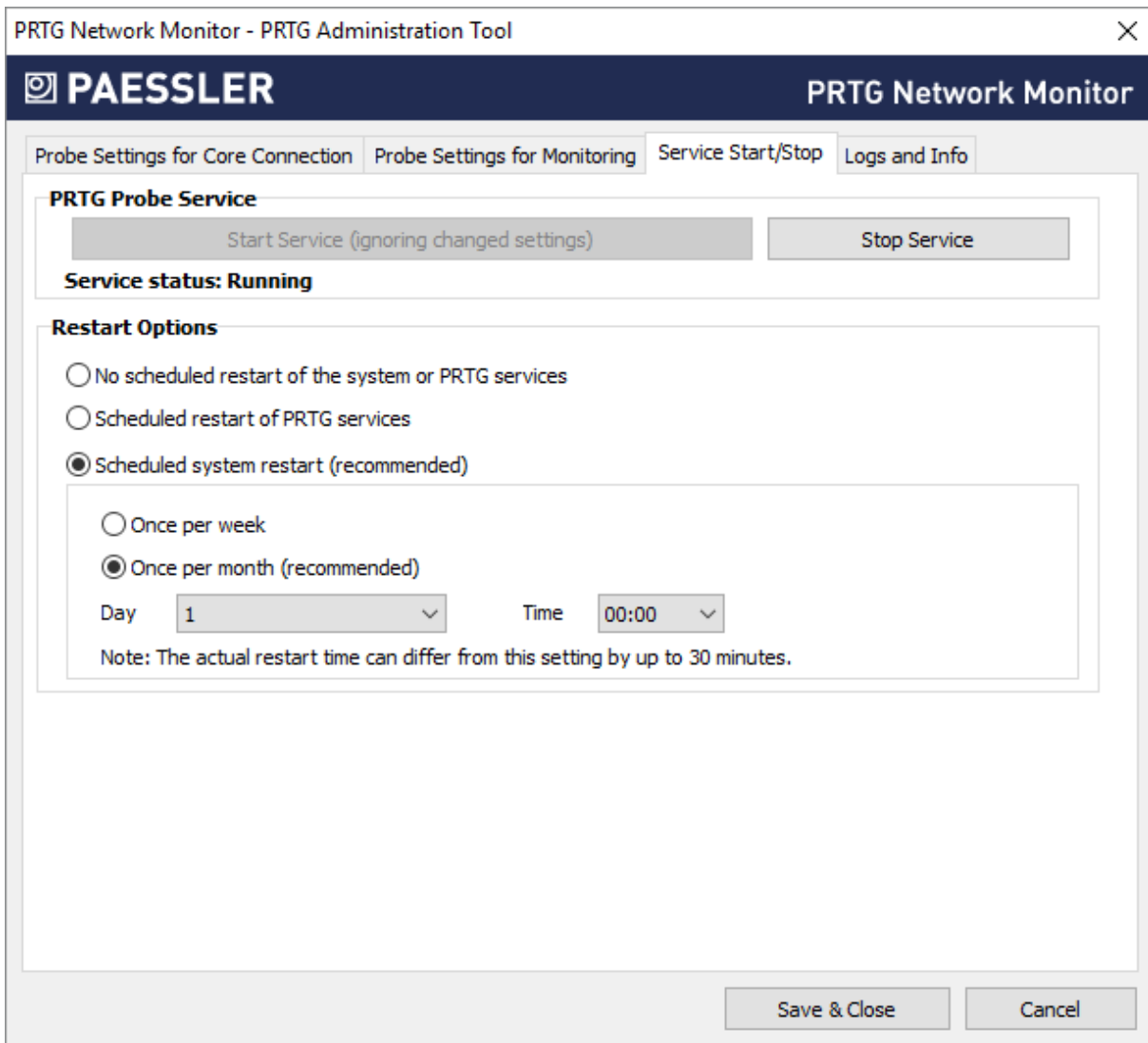
i If you change this setting, some sensors might stop working. For example, sensors might show the Down status if the selected IP address is blocked on the way to or directly on the monitored device.

Setting	Description
IPv4: Outgoing IP for Monitoring Requests	Define the IP address for outgoing requests that use the IPv4 protocol. The list shows all available IP addresses on the system. Choose a specific IP address or select auto.
IPv6: Outgoing IP for Monitoring Requests	Define the IP address for outgoing requests that use the IPv6 protocol. The list shows all available IP addresses on the system. Choose a specific IP address or select auto.  For more information, see section IPv6 Support ¹⁶¹ .

Service Start/Stop

You can manually start and stop the PRTG probe service. Click Start Service to start the service or Stop Service to stop it. Both actions usually take from a few seconds up to several minutes. You can also restart the PRTG probe service under Setup | System Administration | [Administrative Tools](#)⁴²²⁵ in the PRTG web interface.

i We recommend that you schedule automatic service restarts.



Service Start/Stop Tab

Scheduled Restart Settings

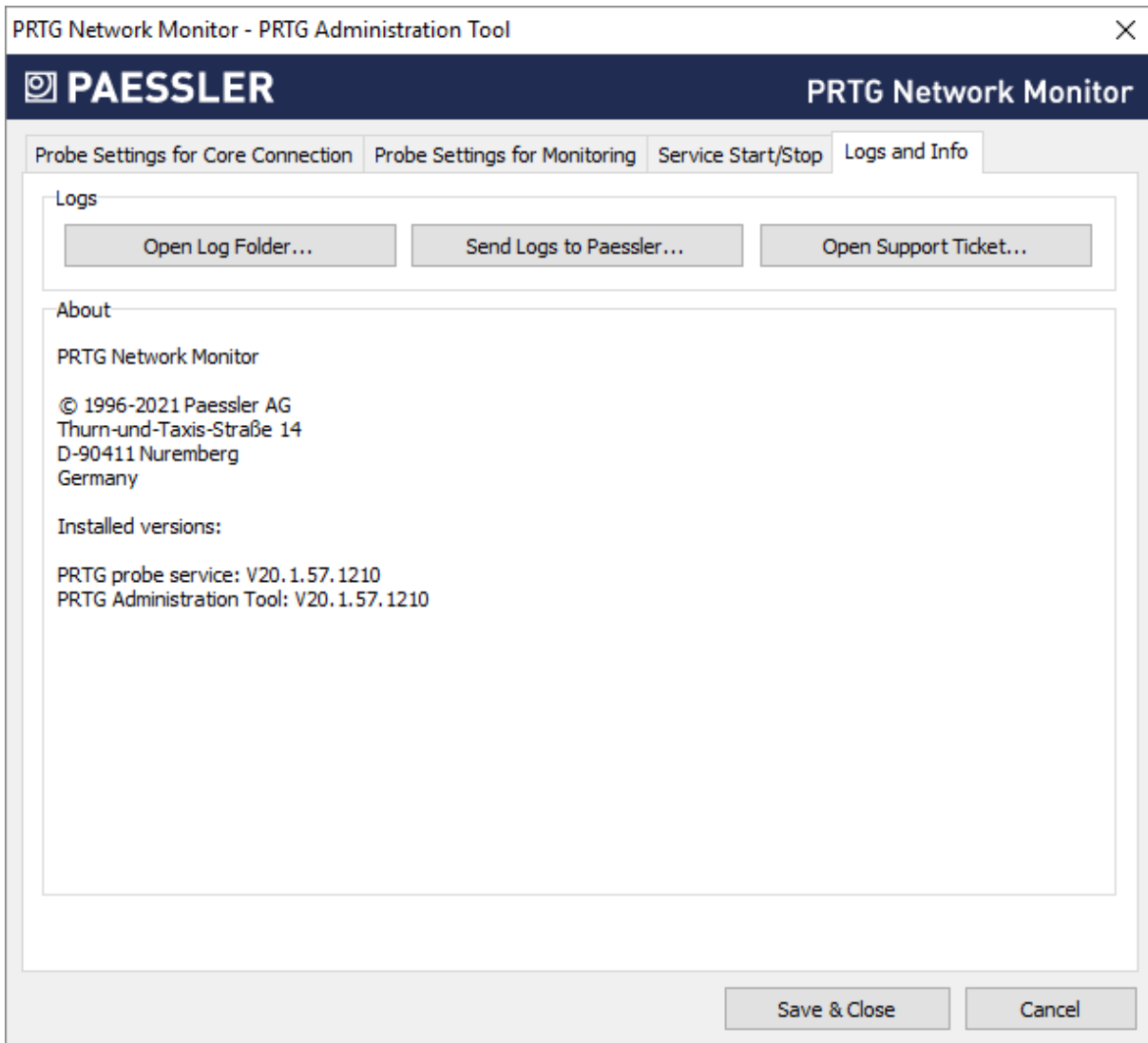
☁ This setting is not available on the hosted probe of a PRTG Hosted Monitor instance.

Setting	Description
Restart Options	<p>Define if you want to schedule an automatic restart:</p> <ul style="list-style-type: none"> No scheduled system or service restart: Do not automatically perform a scheduled restart of services. We recommend that you manually restart the PRTG core server system every few weeks. You can initiate a restart of the PRTG probe service in the Administrative Tools ⁴²²⁵ in the PRTG web interface.

Setting	Description
	<ul style="list-style-type: none"> ▪ Scheduled restart of PRTG services: Restart the PRTG probe service on the probe system. If you select this option on the local probe, the PRTG core server service restarts as well. Define a schedule under Restart Schedule. ▪ Scheduled system restart (recommended): Define a schedule under Restart Schedule. We recommend that you restart probe systems once a month for best performance.
Restart Schedule	<p>This setting is only visible if you select a schedule option above. Choose how often you want to restart the PRTG probe service or the probe system:</p> <ul style="list-style-type: none"> ▪ Once per week: Select a day and a time below. ▪ Once per month (recommended): Select a day of the month and a time below.
Day	<p>This setting is only visible if you select a schedule option above. Select a day of the week (Monday to Sunday) or month (1st to 30th or Last). If you select Last, PRTG restarts the PRTG core server system on the last day of the month, regardless of how many days the month has.</p> <p>i If you select a date that does not exist in every month (for example, the 30th day of February), PRTG automatically initiates the restart on the last day of this month.</p>
Time	<p>This setting is only visible if you select a schedule option above. Select the time of day when PRTG performs the restart.</p> <p>i You get a Windows warning message 10 minutes before the restart to inform you about the restart if you are logged in to PRTG. The actual restart time can differ by up to 30 minutes from the time you enter here.</p>

i You can also define a restart schedule on the [Settings](#) ⁴¹⁰ tab of a remote probe in the PRTG web interface.


Logs and Info



Logs and Info Tab

Logs

Button	Description
Open Log Folder	Open the PRTG data directory ⁴⁵²⁶ to access all logs that PRTG creates.
Send Logs to Paessler	Open an assistant to send logs to the Paessler support team. See Send Logs to Paessler ⁴³⁸⁰ for details. i You can also send logs with the support bundle via Contact Support ⁴²⁷¹ in the PRTG web interface.
Open Support Ticket	Open the support form on the Paessler website in a browser window.

Button	Description
	<p> If you need help, we recommend that you use the Contact Support option in the PRTG web interface instead.</p>

About

The About section shows information about the version of installed PRTG programs and copyright information.

Send Logs to Paessler

 You can also send logs with the support bundle via Contact Support in the PRTG web interface.

Send Logs to Paessler

PAESSLER PRTG Network Monitor

Send Logs to Paessler

Name

Email

Ticket#

Please supply your ticket number (PAEXXXX) if you already have an open support ticket.

If you click the "Send" button, this program will upload the relevant logfiles to Paessler's FTP server and support ticket system.

Please ensure that outgoing FTP and HTTP connections are enabled on this machine.

Note: Support communication can only be provided in English or German!

Send Logs to Paessler

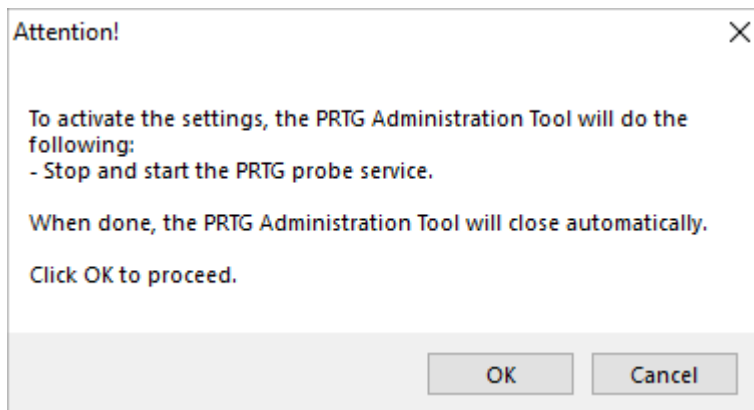
If you open a support ticket, the Paessler support team might ask you to send logs for further analysis.

Field	Description
Name	Enter your name.
Email	Enter a valid email address. You can provide any email address but we recommend that you use the email address of your user account, which PRTG enters by default.
Ticket No.	<p>This field is optional. If you have already opened a ticket with the Paessler support team, provide the ticket number you received. Your files are then automatically associated with your ticket.</p> <p>Enter the ticket number starting with PAE followed by four or more digits, for example, PAE12345. If you do not have a ticket number, leave this field empty.</p>

Click Send to start the data upload. PRTG then automatically collects, compresses, and sends your logs to our FTP over SSL (FTPS) server. Ensure that FTPS and HTTP connections are allowed on the remote probe system.

Activate Changed Settings

After you change settings, click Save & Close. A new window opens where PRTG asks you to agree to restart the PRTG probe service. Click OK to proceed.



Restart Services

More

■ KNOWLEDGE BASE

What security features does PRTG include?

- <https://kb.paessler.com/en/topic/61108>

Which ports does PRTG use on my system?

- <https://kb.paessler.com/en/topic/61462>














Part 14

Advanced Topics

14 Advanced Topics

In this section, we cover more advanced topics. If you already have some experience with PRTG, you might want to learn more about the following topics.

Advanced Topics


- [Active Directory Integration](#)  4385
- [Application Programming Interface \(API\) Definition](#)  4389
- [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4475
- [Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4481
- [Define IP Address Ranges](#)  4483
- [Define Lookups](#)  4485
- [Regular Expressions](#)  4497
- [Calculating Percentiles](#)  4499
- [Add Remote Probe](#)  4501
- [Failover Cluster Configuration](#)  4513
- [Data Storage](#)  4526
- [PRTG Housekeeping](#)  4531
- [Using Your Own SSL Certificate](#)  4537

14.1 Active Directory Integration

PRTG offers a detailed access rights management for user groups in combination with individual user access rights. For detailed information, see section [Access Rights Management](#) ¹⁵⁵.

You can add PRTG user groups to PRTG, or you add user groups from your Active Directory. While integrating an Active Directory into PRTG, you map a user group from your Active Directory to a user group in PRTG.

You can integrate an Active Directory in PRTG in four steps. During this process, you map an Active Directory (AD) group to a user group in PRTG. All members of your Active Directory group can then log in to PRTG using their Active Directory domain credentials.

 You cannot add single Active Directory users to PRTG. You can only allow access for entire Active Directory groups. PRTG automatically creates a user account for each Active Directory user that successfully logs in to PRTG.

 This feature is not available in PRTG Hosted Monitor.



Step 1: Prepare Your Active Directory

- In your Active Directory, make sure that the users that you want to give access to PRTG are members of the same user group in your Active Directory.
- You can also organize users into different user groups, for example, one user group whose members have administrative rights in PRTG, and one user group whose members only have read access in PRTG.


Step 2: Prepare Your PRTG Core Server

- Make sure that the PRTG core server system is a member of the domain that you want to integrate it into. To check this setting, open the Windows Control Panel and click the Change settings link under System, section Computer name, domain, and workgroup settings.

Step 3: Add Active Directory Domain and Credentials (optional) to System Settings

- In the [PRTG web interface](#) ¹⁶³, select Setup | System Administration | Core & Probes from the main menu.
- In section Active Directory Integration, enter the name of your local Active Directory domain in the Domain Name field.
 -  You can only integrate one Active Directory domain into PRTG.
- The following process is optional. PRTG uses the same Windows user account from which a user runs the PRTG core server service. By default, this is the [local system](#) Windows user account. If this user does not have sufficient rights to query a list of all user groups from the Active Directory, provide credentials of a user account with full Active Directory access by using the Use explicit credentials option as Access Type.
 -  If you cannot save changes to the Core & Probes settings because you get an [Error \(Bad Request\)](#) with the message [Active Directory Domain not accessible](#), select Use explicit credentials as Access Type and provide the correct credentials for your Active Directory domain.
- Save your settings.

Step 4: Add a New User Group

- Switch to the User Groups tab (see section [User Groups](#)^[4219]).
- Hover over  and click Add User Group to add a new user group.
- Enter a meaningful User Group Name and select Use Active Directory integration under Active Directory or Single Sign-On Integration.
- From the Active Directory Group dropdown menu that appears, select the group in your Active Directory whose members have access to PRTG. If you have a very large Active Directory with more than 1,000 entries, you see an input field instead of a dropdown menu. In this case, you can only enter the name of the user group in your Active Directory, and PRTG automatically adds the domain name prefix.
- For User Type, define the [access rights](#)^[155] a user from the selected Active Directory group has when logging in to PRTG for the first time. You can choose between Read/write user and Read-only user. Giving users read access only is useful to only show data to a large group of users.
- Click Create.

Done

All users in this newly created Active Directory group can now log in to PRTG using their Active Directory domain credentials. Their user accounts have the [group access rights](#)^[155] of the user group you just created.

Notes and Restrictions

- Active Directory users can [log in to the PRTG web interface](#)^[164] using their Windows user name and password. Do not enter any domain information in the Login Name field. When an Active Directory user logs in, PRTG automatically creates a corresponding local account on the PRTG core server. Credentials are synchronized every hour.
- Do not change the Login Name in PRTG for Active Directory users unless the name changes in the Active Directory. Changing the Login Name in PRTG has no effect on the name in the Active Directory.
- Active Directory queries are made in read-only mode and are compatible with Read-only Domain Controllers (RODC).
- For performance reasons, all requests to Active Directory servers are cached for one hour. If a password is changed, if you add a new user group in the Active Directory, or if you changed group membership of an Active Directory user, you must either wait for an hour or manually clear the cache by selecting Setup | System Administration | Administrative Tools from the main menu and clicking Go! in the Clear Caches section.
- By default, no access rights for monitoring objects, libraries, maps, or reports are set for the new user group in PRTG. This is why, initially, users in this user group do not see monitoring objects, libraries, maps, or reports. This does not apply if the new user group has administrative rights. Edit the monitoring [object's settings](#)^[226] and the settings of libraries, maps, and reports, and set access rights for your newly created user group in the respective Access Rights section.
 - ⓘ The easiest way is to set these access rights in the [root group settings](#)^[366] and use the [inheritance of settings](#)^[142].
- PRTG only supports **explicit** user group rights. If your Active Directory uses groups that are members of other user groups, PRTG does **not** regard the inherited implicit rights of the parent group and therefore refuses login for members of these user groups.

- PRTG ignores Active Directory information about Organizational Units (OU). PRTG cannot read these values. However, if you use the Active Directory in an [auto-discovery group](#)^[296], you can restrict the auto-discovery to machines that are part of an OU.
- You can integrate only one Active Directory domain into PRTG.
- PRTG does not support trusted domains or Active Directory subdomains.
- For very large Active Directories, you see an input field instead of a dropdown menu when you add or modify a user group. In this case, you can only enter the name of the user group in your Active Directory, and PRTG automatically adds the domain name prefix.
- A local user account for an Active Directory user is only created if this Active Directory user has successfully logged in to PRTG. If you want to send [email notifications](#)^[4138] to an Active Directory group in PRTG, using the option Send to User Group in the notification settings, a member of this Active Directory group has to log in to PRTG at least once to receive email notifications. To avoid this, enter the email address of the Active Directory group in the Send to Email Address field in the notification settings and select None for the Send to User Group option.
- If you want to delete an Active Directory group from PRTG because of some changes to the Active Directory, for example, you have to delete all users that are in this user group first. This is because Active Directory users always have this user group set as their primary group, and user accounts cannot be without a primary group.
- If you change the group membership of an Active Directory user, this change is only reflected in the respective user groups in PRTG if this Active Directory user has logged in to PRTG again.
- If you delete an Active Directory user from all user groups in the Active Directory that are related to PRTG access, this user cannot log in to PRTG anymore. However, you still see the user in the user account list in PRTG.

More

KNOWLEDGE BASE



How to integrate Azure Active Directory into PRTG?

- <https://kb.paessler.com/en/topic/88527>

Advanced Topics

- [Active Directory Integration](#)^[4385]
- [Application Programming Interface \(API\) Definition](#)^[4389]
- [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#)^[4475]
- [Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors](#)^[4481]
- [Define IP Address Ranges](#)^[4483]
- [Define Lookups](#)^[4485]
- [Regular Expressions](#)^[4497]
- [Calculating Percentiles](#)^[4499]
- [Add Remote Probe](#)^[4501]
- [Failover Cluster Configuration](#)^[4513]
- [Data Storage](#)^[4525]








Part 14: Advanced Topics | 1 Active Directory Integration

- [PRTG Housekeeping](#)  4531
- [Using Your Own SSL Certificate](#)  4537

14.2 Application Programming Interface (API) Definition

The PRTG API enables you to access monitoring data and manipulate objects using HTTP requests, run your own written sensors and notifications, and implement mini probes.

The following sections introduce the available options within the PRTG API:

- [HTTP API](#)  4390
- [Live Data](#)  4393
- [Live Graphs](#)  4424
- [Historic Data](#)  4427
- [Object Manipulation](#)  4430
- [Custom Sensors](#)  4437
- [Custom Notifications](#)  4452
- [Mini Probe API](#)

More

KNOWLEDGE BASE

How can I share my self-written PRTG script/program with other PRTG users?

- <https://kb.paessler.com/en/topic/63737>

Where can I find PRTG Mini Probes which are ready to use?

- <https://kb.paessler.com/en/topic/61215>


14.2.1 HTTP API

All calls to the PRTG API are performed by HTTP GET requests. The URLs consist of a path to the API function and some parameters.

- If you are accessing the PRTG API inside your secure LAN, you can use HTTP. In environments that are not secure (for example, when accessing your PRTG core server via the internet), you should use HTTPS requests to make sure that your parameters and passwords are encrypted. This way, all communication between the PRTG core server and your client is Secure Sockets Layer (SSL) encrypted.
- For every API call, the default limit of items is 500. If you want to receive more items per call, add a `count=xxx` parameter with enough room for all sensors.
- You must include authentication with user name and `passhash` (or user name and password) in each request.
■ See section [Authentication](#) for more information.
- All data in the GET parameters must be UTF-8-encoded and URL encoded.

Output Formats

Most data that you can request from the PRTG API is available in data tables in the Extensible Markup Language (XML), the JavaScript Object Notation (JSON) format, and the comma-separated values (CSV) format (using the XML format is recommended). Here are some sample calls with different output formats.

 Examples

XML

```
https://yourserver/api/table.xml?content=sensors&columns=sensor
```

JSON

```
https://yourserver/api/table.json?content=sensors&columns=sensor
```

CSV

```
https://yourserver/api/table.xml?content=sensors&columns=sensor&output=csvtable
```


The example URLs consist of the following elements.

Element	Description
yourserver	The name of your PRTG server.
/api/table.xml or /api/table.json	Addresses an API function. Here, the function renders a table in the XML format or in the JSON format.
content=sensors	Parameter for additional control. In this case, it includes all sensors in the table.

Element	Description
columns=sensor	Parameter for additional control. In this case, only the names of all sensors are shown in the table.
output=csvtable (optional)	Renders a table in the CSV format.

Authentication

All requests to the PRTG API are stateless, which means that there is no multi-step login process of an kind. You must include the authentication with user name and passhash (or user name and password) in each request by using the user name and passhash (or user name and password) parameters.

 Examples

```
https://yourserver/api/table.xml?
content=sensors&columns=sensor&username=myuser&passhash=hash
```

or:

```
https://yourserver/api/table.xml?
content=sensors&columns=sensor&username=myuser&password=mypassword
```

The example URLs now also contain the credentials for authentication purposes:

- username=myuser&passhash=hash (or password=mypassword)

You can request the passhash for an account with the following API call:

```
https://yourserver/api/getpasshash.htm?username=myuser&password=mypassword
```

 Make sure that user name and password are URL-encoded.

Versioning

Most XML replies from the PRTG API contain a <version> field that contains the [program version](#) and [buildnumber](#) of the server's PRTG installation. Your client must look at this version number and compare it to the version number that was used to develop the client. Do not accept version numbers older (smaller) than this one. You should display a warning to the user (or stop processing) if the version number differs by 0.1 or more (for example, version 18.1 vs. 18.2, or version 17.x vs. 18.x). PRTG API conventions or parameters might have changed between versions.

 Newer versions of the same major version of PRTG reply to API calls just like previous versions did.

Error Handling

Depending on whether an API call was successfully processed or not, the PRTG core server replies with the following HTTP status codes:

HTTP Status Code	Meaning	Comments
200	OK	The API call was successfully completed , the XML response contains the result data.
302	Found	The API call was successfully completed and a new object was created (the redirection URL contains the new object ID).
400	Bad Request	The API call could not be successfully completed. The XML response contains the error message.
401	Unauthorized	The username/password credentials cannot be accepted.

For 400 error codes, the error .xml document includes the error message as follows:

```
<?xml version="1.0" encoding="UTF-8" ?>
  <prtg>
  <version>18.1.37.10127+</version>
  <error>Sorry, there is no object with the specified id.</error>
  </prtg>
```









More

■ KNOWLEDGE BASE

How can I use the PRTG Application Programming Interface (API)?

- <https://kb.paessler.com/en/topic/593>

Application Programming Interface (API) Definition

- [HTTP API](#)  4390
- [Live Data](#)  4393
- [Live Graphs](#)  4424
- [Historic Data](#)  4427
- [Object Manipulation](#)  4430
- [Custom Sensors](#)  4437
- [Custom Notifications](#)  4452
- [Mini Probe API](#)  4455

14.2.2 Live Data

You can access live data and live status data of objects using the PRTG API.

Getting Single Object Property

You can get the properties or settings of a single object such as name, hostname, or URL using the PRTG API.

See section [Single Object Property](#)⁴³⁹⁴ for more information.

Getting Single Object Status

You can get the status of a single object such as last value or downtime using the PRTG API.

See section [Single Object Status](#)⁴³⁹⁷ for more information.

Getting Multiple Object Property or Status

You can get the property or status of multiple objects and use sorting and advanced filtering using the PRTG API.

See section [Multiple Object Property or Status](#)⁴⁴⁰⁴ for more information.

Getting System Information

You can get system information from the [system information](#)²³⁷ tables using the PRTG API.

See section [System Information](#)⁴⁴²⁰ for more information.

Getting PRTG System Status

You can also get the PRTG system status such as the number of alarms or messages using the following API calls.

Examples

Live system status in the Extensible Markup Language (XML) format:

```
/api/getstatus.xml?id=0
```

Live system status in the JavaScript Object Notation (JSON) format:

```
/api/getstatus.htm?id=0
```

All sensors in use in the JSON format:

```
/api/sensortypesinuse.json
```

Number of all sensor states:

```
/api/gettreenodestats.xml
```









More

■ KNOWLEDGE BASE

How can I use the PRTG Application Programming Interface (API)?

- <https://kb.paessler.com/en/topic/593>

Application Programming Interface (API) Definition




- [HTTP API](#)  4390
- [Live Data](#)  4393
- [Live Graphs](#)  4424
- [Historic Data](#)  4427
- [Object Manipulation](#)  4430
- [Custom Sensors](#)  4437
- [Custom Notifications](#)  4452
- [Mini Probe API](#)  4455

14.2.2.1 Single Object Property

You can access live data and live status data of single objects using the PRTG API.

- ❗ Authentication with user name and [passhash](#)  4123 (or user name and password) must always be included in each PRTG API request. See section [Authentication](#)  4391 for more information.

In this section:

- [Property/Setting of an Object](#)  4394
- [Supported Object Types](#)  4395
- [Available Channel Parameters](#)  4395
- [Property of a Channel](#)

Property/Setting of an Object

You can get the properties or settings of an object (name, hostname, url) using the following API calls.

- ❗ Because properties might contain HTML content, we recommend that you include [&show=nohtmlencode](#) in all `getobjectproperty` API calls.

Examples

Get an object property/setting:

```
/api/getobjectproperty.htm?id=objectid&name=propertyname&show=nohtmlencode
```


i For `propertyname`, look at the name of the INPUT fields while editing an object. You can discern the `propertyname` parameter by opening the Settings tab of an object and looking at the HTML source of the INPUT fields. For example, the INPUT field for the tags of an object has the name `tags_`. Leave away the underscore `_` and use `tags` as a value for the `propertyname` parameter.

Get a list of all tags for object ID 1003

```
/api/getobjectproperty.htm?id=1003&name=tags&show=nohtmlencode
```

The Extensible Markup Language (XML) result looks like this:

```
<?xml version="1.0" encoding="UTF-8" ?>
<prtg>
  <version>18.3.45.1224+</version>
  <result>probehealthsensor</result>
</prtg>
```

Supported Object Types

`getobjectproperty.htm` supports the following object types:

- probe
- group
- device
- sensor
- channel
- library
- map
- notification
- report
- schedule
- user account

`getobjectproperty.htm` does not support the object types [ticket](#) and [user group](#).

Available Channel Parameters

Name of Input Field	Setting Name (as displayed in the PRTG web interface)
<code>name</code>	Name
<code>limitmode</code>	Limit disabled or enabled (0 or 1)

Name of Input Field	Setting Name (as displayed in the PRTG web interface)
limitmaxerror	Upper Error Limit
limitmaxwarning	Upper Warning Limit
limitminwarning	Lower Warning Limit
limitminerror	Lower Error Limit
limiterrormsg	Error Limit Message
limitwarningmsg	Warning Limit Message

Property of a Channel

With this API call, you can get a sensor's [channels settings](#), for example channel limits. In general, this works like getting properties of any other object. To get channel properties via the PRTG API, you need to provide

- the ID of a sensor (parameter id),
- a subtype ([channel](#) for channels), and
- a subid (ID of the channel that you want to edit)

i Because properties might contain HTML content, we recommend that you include [&show=nohtmlencode](#) in all `getobjectproperty` API calls.

Examples

Get a channel limit

```
/api/getobjectproperty.htm?  
id=sensorid&subtype=channel&subid=channelid&name=limitname&show=nohtmlencode
```

For example, the following API call gets the upper warning limit of a channel with the ID **0** of a sensor with the ID **1003**

```
/api/getobjectproperty.htm?  
id=1003&subtype=channel&subid=0&name=limitmaxwarning&show=nohtmlencode
```

The XML result looks like this:

```
<?xml version="1.0" encoding="UTF-8" ?>  
<prtg>  
  <version>18.3.45.1224+</version>  
  <result>25</result>  
</prtg>
```

More

■ KNOWLEDGE BASE

How can I use the PRTG Application Programming Interface (API)?

- <https://kb.paessler.com/en/topic/593>

Live Data

- [Single Object Property](#) ⁴³⁹⁴
- [Single Object Status](#) ⁴³⁹⁷
- [Multiple Object Property or Status](#) ⁴⁴⁰⁴
- [System Information](#) ⁴⁴²⁰

14.2.2.2 Single Object Status

You can access live data and live status data of single objects using the PRTG API.

- ❗ Authentication with user name and [passhash](#) ⁴¹²³ (or user name and password) must always be included in each PRTG API request. See section [Authentication](#) ⁴³⁹¹ for more information.

In this section:

- [Status of an Object](#) ⁴³⁹³
- [Supported Object Types](#) ⁴³⁹⁸
- [Supported getObjectstatus Output Columns \("Name=" Parameter\)](#) ⁴³⁹⁸
- [Sensor Details](#) ⁴⁴⁰³
- [Ticket Status and Message](#)

Status of an Object

You can get the status information (lastvalue, downtime) of an object using the following API calls:

🗨 Examples

Get object status:

```
/api/getobjectstatus.htm?id=objectid&name=columnname
```

The Extensible Markup Language (XML) result looks like this:

```
<?xml version="1.0" encoding="UTF-8" ?>
<prtg>
  <version>18.4.45.10127+</version>
  <result>True</result>
</prtg>
```

i In some cases, the result can contain HTML formatting elements.

Supported Object Types

getobjectstatus.htm supports the following object types:

- probe
- group
- device
- sensor





Supported getobjectstatus Output Columns ("Name=" Parameter)

With getobjectstatus.htm, you can use the following column names for the name parameter.

i Only one column name is allowed in the API call.

i If you want to use combinations of column names or more than one object in a single API call, use a table API call instead. For more information, see section [Multiple Object Property or Status](#).


Column Name	What It Displays	Can Be Used for
objid	ID of the object	probes, groups, devices, sensors
type	Object type or sensor type	probes, groups, devices, sensors
name	Name of the object	probes, groups, devices, sensors
tags	List of all tags. This includes tags from the object itself plus tags that are inherited from parent objects.	probes, groups, devices, sensors
active	True/false depending on whether an object is set to paused by a user	probes, groups, devices, sensors
downtime	Cumulated downtime of the sensor (displayed as percentage of uptime+downtime)	sensors
downtime	Cumulated downtime of the sensor (in minutes/hours)	sensors
downtimesince	Elapsed time since the last Up status of the sensor	sensors

Column Name	What It Displays	Can Be Used for
uptime	Cumulated uptime of the sensor (displayed as percentage of uptime+downtime)	sensors
uptimetime	Cumulated uptime of the sensor (in minutes/hours)	sensors
uptimesince	Elapsed time since the last Down status of a sensor	sensors
knowntime	Sum of cumulated uptime and downtime of the sensor  The output contains HTML.	sensors
cumsince	Time stamp when accumulation of uptimes/downtimes began	sensors
sensor	Name of the sensor	sensors
interval	Effective interval setting for the sensor	sensors
lastcheck	Time stamp of the last sensor result  The output contains HTML.	sensors
lastup	Time stamp of the most recent Up status of the sensor  The output contains HTML.	sensors
lastdown	Time stamp of the most recent Down status of the sensor  The output contains HTML.	sensors
device	For sensors: ID of the associated device For devices: name of the associated device	devices, sensors
group	For sensors: ID of the associated group For devices: name of the associated group	groups, devices, sensors

Column Name	What It Displays	Can Be Used for
probe	Name of the associated probe	probes, groups, devices, sensors
grpdev	Name of the associated device and associated group, separated by slash	sensors
notifiesx	Returns a string containing the number of each trigger type defined for this object. If trigger inheritance is active, it displays Inherited .	probes, groups, devices, sensors
intervalx	Either Inherited or the current interval setting of the object	probes, groups, devices, sensors
dependency	Name of an associated dependency or Parent i The output contains HTML.	probes, groups, devices, sensors
probegroupdevice	Complete object hierarchy with names of associated device, group, and probe separated by angle brackets (>). If more than one group is in the object hierarchy, these are displayed with dots (..). i The output contains HTML.	probes, groups, devices, sensors
status	Integer value of the status of the object (0=None, 1=Unknown, 2=Scanning, 3=Up, 4=Warning, 5=Down, 6=No Probe, 7=Paused by User, 8=Paused by Dependency, 9=Paused by Schedule, 10=Unusual, 11=Not Licensed, 12=Paused Until, 13=Down Acknowledged, 14=Down Partial)	probes, groups, devices, sensors
message	Detailed message of the object i The output contains HTML.	probes, groups, devices, sensors
priority	Priority setting of the object i The output contains HTML.	probes, groups, devices, sensors
lastvalue	Last sensor result value	sensors
upsens	Number of sensors in the Up status	probes, groups, devices, sensors


Column Name	What It Displays	Can Be Used for
	<ul style="list-style-type: none"> ⓘ PRTG only counts the sensor itself or sensors below the object in the hierarchy. ⓘ If the count is <1 PRTG returns "". 	
downsens	<p>Number of sensors in the Down status</p> <ul style="list-style-type: none"> ⓘ PRTG only counts the sensor itself or sensors below the object in the hierarchy. ⓘ If the count is <1 PRTG returns "". 	probes, groups, devices, sensors
downacksens	<p>Number of sensors in the Down (Acknowledged) status</p> <ul style="list-style-type: none"> ⓘ PRTG only counts the sensor itself or sensors below the object in the hierarchy. ⓘ If the count is <1 PRTG returns "". 	probes, groups, devices, sensors
partialdownsens	<p>Number of sensors in the Down (Partial) status</p> <ul style="list-style-type: none"> ⓘ PRTG only counts the sensor itself or sensors below the object in the hierarchy. ⓘ If the count is <1 PRTG returns "". 	probes, groups, devices, sensors
warnsens	<p>Number of sensors in the Warning status</p> <ul style="list-style-type: none"> ⓘ PRTG only counts the sensor itself or sensors below the object in the hierarchy. ⓘ If the count is <1 PRTG returns "". 	probes, groups, devices, sensors
pausedsens	<p>Number of sensors in the Paused status</p> <ul style="list-style-type: none"> ⓘ PRTG only counts the sensor itself or sensors below the object in the hierarchy. 	probes, groups, devices, sensors

Column Name	What It Displays	Can Be Used for
unusualsens	<p>i If the count is <1 PRTG returns "".</p> <p>Number of sensors in the Unusual status</p> <p>i PRTG only counts the sensor itself or sensors below the object in the hierarchy.</p> <p>i If the count is <1 PRTG returns "".</p>	probes, groups, devices, sensors
undefinedsens	<p>Number of sensors in an undefined status, like None, Unknown, No Probe.</p> <p>i PRTG only counts the sensor itself or sensors below the object in the hierarchy.</p> <p>i If the count is <1 PRTG returns "".</p>	probes, groups, devices, sensors
totalsens	<p>Number of all sensors</p> <p>i PRTG only counts the sensor itself or sensors below the object in the hierarchy.</p> <p>i If the count is <1 PRTG returns "".</p>	probes, groups, devices, sensors
favorite	<p>An exclamation mark (!) if the object is marked as favorite</p> <p>i The output contains HTML.</p>	groups, devices, sensors
schedule	Name of the associated schedule	probes, groups, devices, sensors
minigraph	<p>Numeric data for the minigraphs. Numbers are 5-minute averages for the last 24 hours (must be scaled to the maximum of the series). There are two datasets: "|" separates measured value series and error series.</p> <p>i The output contains HTML.</p>	sensors
comments	Object comments	probes, groups, devices, sensors

Column Name	What It Displays	Can Be Used for
host	Hostname or IP address	devices
condition	For probes: If the probe is connected or disconnected (0=Disconnected, 1=Unauthorized, 2=Connected, 3=Banned, 4=Init) For groups: The auto-discovery status	probes, groups
basetype	Object type (string)	probes, groups, devices, sensors
baselink	URL of the object	probes, groups, devices, sensors
icon	URL of the device icon	devices
parentid	ID of the parent object	probes, groups, devices, sensors
location	Location property (used in Geo Maps)  The output contains HTML.	devices
groupnum devicenum	Number of groups or devices in the probe or group	probes, groups

Sensor Details

You can get details about a sensor (sensortype, interval, uptime) using the following API calls:

 You need the sensor ID to get details about a sensor. You can find the ID on the sensor's Overview [tab](#) or by hovering over a sensor in the device tree, for example.

Examples

Get details about a sensor in the XML format:

```
/api/getsensordetails.xml?id=sensorid
```

Get details about a sensor in the JavaScript Object Notation (JSON) format:

```
/api/getsensordetails.json?id=sensorid
```

Ticket Status and Message

The following API calls return status and message of a ticket.

Examples

The status of a ticket:

```
/api/getticketstatus.htm?id=ticketid
```

The subject and assignee of a ticket:

```
/api/getticketmessage.htm?id=ticketid
```

More

KNOWLEDGE BASE

How can I use the PRTG Application Programming Interface (API)?

- <https://kb.paessler.com/en/topic/593>

Live Data

- [Single Object Property](#) 4384
- [Single Object Status](#) 4397
- [Multiple Object Property or Status](#) 4404
- [System Information](#) 4420

14.2.2.3 Multiple Object Property or Status

You can access live data and live status data of multiple objects using the PRTG API.

 Authentication with user name and [passhash](#) 4123 (or user name and password) must always be included in each PRTG API request. See section [Authentication](#) 4391 for more information.

In this section:

- [Property or Status of Multiple Objects](#) 4405
- [XML Table Query Builder](#) 4405
- [Output Data Format](#) 4405
- [RAW Date/Time Format](#) 4406
- [Common Data Table Parameters](#) 4406
- [Filtering by Object ID](#) 4407
- [Sorting and Advanced Filtering](#) 4406
- [Supported Output Columns \("columns=" Parameter\)](#)

Property or Status of Multiple Objects

Most data that you can request from the PRTG API is available in data tables in the Extensible Markup Language (XML) format, the JavaScript Object Notation (JSON) format, and the comma-separated values (CSV) format (using the XML format is recommended). The API function `/api/table.xml` is used to access data in tables. Here are some sample calls (URLs are shown without authentication parameters to enhance readability).

- i** The example URLs only show the XML URLs. Use the API function `/api/table.csv` or the `output=constable` parameter to select the CSV format, or `/api/table.json` to return the JSON format.

Examples

A hierarchical list of all groups, devices, and sensors with their status information:

```
/api/table.xml?content=sensortree
```



i `sensortree` does not support JSON output.

All sensors (with status information):

```
/api/table.xml?
content=sensors&columns=objid,group,device,sensor,status,message,lastvalue,priority,
favorite
```

All recent log entries:

```
/api/table.xml?
content=messages&columns=objid,datetime,parent,type,name,status,message
```

You have the easiest start if you use the [XML table query builder](#) ⁴⁴⁰⁵ or click , which most data tables have in the PRTG web interface. Navigate to the information that you want to use, click , and you are taken to a URL that renders the content of the table in the XML format. You can now use the URL as it is or change various parameters to suit your needs.

- For more information on possible raw message status values returned by table-based API calls, see the Knowledge Base: [Is there a list of log status values for the PRTG API?](#)

XML Table Query Builder

You can use the query builder tool to experiment with the PRTG API and to fine-tune your queries. You can find it in the PRTG web interface under Setup | PRTG API, section Live Data.

Output Data Format

XML data from the PRTG API contains the fields that you requested in the `columns` parameter. In most cases, numeric values are included twice: One field contains the value in human-readable format and an additional `_RAW` field contains the value as a number, which is better suited for further processing and calculations.

Example

```
<status>Up</status>
<status_RAW>3</status_RAW>
<lastvalue>98 %</lastvalue>
<lastvalue_RAW>97.7583</lastvalue_RAW>
<message>Created.<br/>18.3.43.1360</message>
<message_RAW>Created. 18.3.43.1360</message_RAW>
```

- The status field shows the value Up (the according RAW value is 3).
 - The lastvalue field shows the value 98% (the according RAW value is 97.7583).
 - The message field shows the text Created.
18.3.43.1360 (the according RAW value is Created. 18.3.43.1360).
- i** Strings returned from _RAW columns are surrounded by double quotes (") in JSON output.

RAW Date/Time Format

For columns with date/time value, the RAW value is defined as follows: The integral part of a value is the number of days that have passed since Dec 30th, 1899. The fractional part of a value is a fraction of a 24-hour day that has elapsed. To find the fractional number of days between two dates, subtract the two values. Similarly, to increment a date and time value by a certain fractional number of days, add the fractional number to the date and time value.

Here are some examples of date/time RAW values and their corresponding dates and times:

RAW Date/Time Value	Description
0	12/30/1899 00h00m (12:00 midnight)
2.75	1/1/1900 18h00m (6:00 pm)
35065	1/1/1996 00h00m (12:00 midnight)

Common Data Table Parameters

The following parameters are common to all data table API calls:

Parameter	Description	Possible Values
content	Select the objects that you want to have in your table.	sensortree (JSON output not supported) devices sensors tickets

Parameter	Description	Possible Values
		ticketdata messages values channels reports storedreports toplists sysinfo (only JSON output supported)
columns	Comma-separated list of columns per record	see Supported Output Columns ("columns=" Parameter)
output	Control the output format	xml: default format (recommended) xmltable: an HTML table in the XML format csvtable: CSV format html: HTML table json: JSON format jsontable: a table in the JSON format
count	Maximum number of items (default 500)	1-50000
start	Start with this entry number (can be used with "count" to request the data page by page)	any

Filtering by Object ID

Add an ID parameter (for example, id=1) to the API URL to select a subset of items for the data table, for example, to reduce the amount of data transferred for each data table API call. The data table only contains information for this object ID and its child objects.




- ⓘ Some table types require an ID. If you omit the ID parameter or if it has the value zero (0), all available objects are used.



Table Type (content=)	ID Required or Optional	Description	Object Types Allowed for the ID
sensortree	optional	You only get a part of the tree (the object with the specified ID and all child objects below it). i JSON output is not supported.	Probe Group
sensors devices	optional	You only get the object with the specified ID and all child objects below it.	Probe Group Device
tickets messages	optional	You only get tickets or logfile entries that are related to the object with the specified ID or any child objects below it.	Any object
values channels	required	You get the data values (or channels) of the sensor with the specified ID.	Sensor
reports	not used	This data table always includes all reports.	n/a
storedreports	required	You get a list of stored .pdf files of the report selected by the ID.	Report
ticketdata	required	You get the history of the ticket selected by the ID.	Ticket
sysinfo	required	You get system information of the object with the specified ID.	Device

Sorting and Advanced Filtering

There are various options to further filter and to sort the data for each data table API call:

Parameter	Description	Possible Values
filter_drel	Only include records younger than this setting	today yesterday 7days

Parameter	Description	Possible Values
	<p> For content=messages and content=tickets only.</p>	<p>30days 12months 6months</p>
filter_status	<p>Only include sensors with a specific status. Using multiple filter_status fields performs a logical OR.</p> <p> For content=sensors only.</p>	<p>Unknown=1 Collecting=2 Up=3 Warning=4 Down=5 NoProbe=6 PausedbyUser=7 PausedbyDependency=8 PausedbySchedule=9 Unusual=10 PausedbyLicense=11 PausedUntil=12 DownAcknowledged=13 DownPartial=14</p>
filter_tags	<p>Only include sensors with a specific tag. Using multiple filter_tag fields performs a logical OR.</p> <p> For content=sensors only.</p>	<p>@tag(tagname)</p>
filter_xyz	<p>Filter the data. (Samples: filter_type=ping, filter_favorite=1). Using multiple filter_xyz fields performs a logical OR.</p>	<p>filter_xyz where xyz is any column name used in the columns parameter Substrings: use filter_xyz=@sub(substring1,substring2) Values not equal/above/below: use filter_xyz=@neq(value), filter_xyz=@above(value), filter_xyz=@below(value)</p>

Parameter	Description	Possible Values
	<p>Filtering using columns is only possible for tree objects. You cannot use columns to filter objects like messages or tickets, for example. For content=tickets, you can use the special filter terms filter_status, filter_user, and filter_type (this corresponds to column tickettype).</p> <p>Like for messages, you can also use filter_drel, filter_dstart, and filter_dend.</p> <p> Multiple filters are not available for tickets.</p>	
sortby	<p>Sort the data. If this parameter is omitted, the table is sorted based on the first column. Add a leading "-" to reverse sort order. (Samples: sortby=name, sortby=lastvalue, sortby=-lastvalue, sortby=uptime)</p>	<p>Any column name used in the columns parameter.</p> <p> Log tables with content=messages are always sorted by descending date.</p>

 Examples

Here are some samples for filtered API calls:

All sensors that are not in the Up [status](#)^[197] (with their status and downtime information):

```
/api/table.xml?
content=sensors&columns=objid,downtimesince,device,sensor,lastvalue,status,message,p
riority
&filter_status=5&filter_status=4&filter_status=10&filter_status=13&filter_status=14&
sortby=priority
```

Fastest Ping sensors:

```
/api/table.xml?
content=sensors&columns=objid,sensor,lastvalue,status,message&sortby=lastvalue
&filter_type=ping
```

Log entries of the last 7 days for object id [2003](#):


```
/api/table.xml?content=messages&id=2003&start=0&filter_dre1=7days&columns=
objid,datetime,type,name,status,message
```

Supported Output Columns ("columns=" Parameter)

You can use the following column names for the columns parameter (separated by comma, for example, columns=objid,name,type).

Column Name	What It Displays	Can Be Used for
objid	ID of the object	all object tables
type	Object type (group, device, report, etc.), or the sensor type (ping, http, etc.), or event type for tickets (relevant for ToDo tickets)	all object tables
name	Name of the object or channel. For log messages/tickets: the name of the related object. For stored reports: the name of the report file.	all object tables channels messages storedreports toplists tickets
tags	List of all tags (for tickets: tags for the related object). This includes tags from the object itself plus tags that are inherited from parent objects.	all object tables (except for user)
active	True/false depending on whether an object is set to paused by a user (for tickets: related object). For notifications that are paused by schedule, it also displays the end of the schedule.	all object tables
downtime	Cumulated downtime of the sensor (displayed as percentage of uptime+downtime)	sensors
downtime	Cumulated downtime of the sensor (in minutes/hours)	sensors

Column Name	What It Displays	Can Be Used for
downtimesince	Elapsed time since last Up status of the sensor	sensors
uptime	Cumulated uptime of the sensor (displayed as percentage of uptime+downtime)	sensors
uptimetype	Cumulated uptime of the sensor (in minutes/hours)	sensors
uptimesince	Elapsed time since the last Down status of the sensor	sensors
knowntime	Sum of cumulated uptime and downtime of the sensor	sensors
cumsince	Time stamp when accumulation of uptimes/downtimes began	sensors
sensor	Name of the sensor	sensors toplists
interval	Effective interval setting for the sensor	sensors
lastcheck	Time stamp of the last sensor result	sensors
lastup	Time stamp of the most recent Up status of the sensor	sensors
lastdown	Time stamp of the most recent Down status of the sensor	sensors
device	Name of the associated device	sensors devices
group	Name of the associated group	sensors devices groups
probe	Name of the associated probe	sensors devices

Column Name	What It Displays	Can Be Used for
		groups
		probes
grpdev	Name of the associated device and the associated group separated by a forward slash (/)	sensors devices
notifiesx	Number of each trigger type defined for the object	probes groups devices sensors
intervalx	Either Inherited or the current interval setting of the object	probes groups devices sensors
accessrights	Access rights of the current user for the sensor tree object	all objects (except for user), for example: probes groups devices sensors
dependency	Name of an associated dependency or Parent	probes groups devices sensors
probegroupdevice	Complete object hierarchy with names of associated device, group, and probe separated by a forward slash (/). If more than one group is in the object hierarchy, these are displayed with '..'	sensor device group probe

Column Name	What It Displays	Can Be Used for
status	<p>For sensor tree objects: status of the object (0=None, 1=Unknown, 2=Scanning, 3=Up, 4=Warning, 5=Down, 6=No Probe, 7=Paused by User, 8=Paused by Dependency, 9=Paused by Schedule, 10=Unusual, 11=Not Licensed, 12=Paused Until, 13=Down Acknowledged, 14=Down Partial)</p> <p>For messages: category of the log message</p> <p>For tickets: status of ticket (open, resolved, closed)</p>	<p>sensors</p> <p>devices</p> <p>groups</p> <p>probes</p> <p>messages</p> <p>tickets</p>
message	<p>Detailed message of the sensor tree object (for example, last error of the sensor) or the history entry, log entry, ticket subject</p>	<p>sensors</p> <p>devices</p> <p>groups</p> <p>probes</p> <p>messages</p> <p>tickets</p> <p>ticketdata</p> <p>history</p>
priority	<p>Priority setting of the sensor tree object or the priority of the log entry/ticket</p>	<p>sensors</p> <p>devices</p> <p>groups</p> <p>probes</p> <p>messages</p> <p>tickets (not supported: schedule, notification, user)</p>
lastvalue	<p>Last sensor result value or channel values</p> <p>When used with channels, you have to use <code>lastvalue_</code> to automatically display volumes and speed.</p>	<p>sensors</p> <p>channels</p>

Column Name	What It Displays	Can Be Used for
upsens	<p>Number of sensors in the Up status</p> <p>i PRTG only counts the sensor itself or sensors below the object in the hierarchy.</p>	<p>all sensors</p> <p>devices</p> <p>groups</p> <p>probes</p>
downsens	<p>Number of sensors in the Down status</p> <p>i PRTG only counts the sensor itself or sensors below the object in the hierarchy.</p>	<p>all sensors</p> <p>devices</p> <p>groups</p> <p>probes</p>
downacksens	<p>Number of sensors in the Down (Acknowledged) status</p> <p>i PRTG only counts the sensor itself or sensors below the object in the hierarchy.</p>	<p>all sensors</p> <p>devices</p> <p>groups</p> <p>probes</p>
partialdownsens	<p>Number of sensors in the Down (Partial) status</p> <p>i PRTG only counts the sensor itself or sensors below the object in the hierarchy.</p>	<p>all sensors</p> <p>devices</p> <p>groups</p> <p>probes</p>
warnsens	<p>Number of sensors in the Warning status</p> <p>i PRTG only counts the sensor itself or sensors below the object in the hierarchy.</p>	<p>all sensors</p> <p>devices</p> <p>groups</p> <p>probes</p>
pausedsens	<p>Number of sensors in the Paused status. This includes all Paused states ('paused by user', 'paused by dependency', 'paused by schedule', etc.).</p>	<p>all sensors</p> <p>devices</p> <p>groups</p> <p>probes</p>
unusualsens	<p>Number of sensors in the Unusual status.</p>	<p>all sensors</p> <p>devices</p> <p>groups</p>

Column Name	What It Displays	Can Be Used for
	<p>i PRTG only counts the sensor itself or sensors below the object in the hierarchy.</p>	probes
undefinedsens	Number of sensors in an undefined status, like None, Unknown, No Probe.	all sensors devices
	<p>i PRTG only counts the sensor itself or sensors below the object in the hierarchy.</p>	groups probes
totalsens	Number of all sensors	all sensors
	<p>i PRTG only counts the sensor itself or sensors below the object in the hierarchy.</p>	devices groups probes
size	Performance impact of the sensor (1=Very Low, 2=Low, 3=Medium, 4=High, 5=Very High)	sensors
value	<p>The channel value or the Toplist value.</p> <p>Should only be used as <code>value_</code>, because then it is expanded for all visible channels/toplist columns.</p>	values topdata
coverage	Sensor coverage of the time span in a value table.	values
favorite	An exclamation mark (!) if the sensor tree object is marked as favorite	sensors devices groups probes
user	User responsible for a history entry or the user (or user group) a ticket is assigned to.	history tickets ticketdata

Column Name	What It Displays	Can Be Used for
parent	Name of the parent object of the associated object of a log message	messages
datetime	Time stamp or time span of the object (for tickets: last modification)	messages tickets ticketdata values history storedreports topidx
dateonly	Like datetime but only the date part	messages tickets history values
timeonly	Like datetime but only the time part	messages tickets history values
schedule	For sensor tree objects: Name of the associated schedule For reports: Report generation schedule	probes groups devices sensors reports
period	Period of the report (day, week, etc.)	reports
email	Email address of the report	reports
template	Template used by the report	reports
lastrun	Time stamp of the last generation of a report	reports

Column Name	What It Displays	Can Be Used for
nextrun	Time stamp of the next generation of a report	reports
size	Size of a stored report	size of a stored report
minigraph	Numeric data for the minigraphs. Numbers are 5-minute averages for the last 24 hours (must be scaled to the maximum of the series). There are two datasets: "|" separates measured value series and error series.	sensors
deviceicon	Device icon	devices
comments	Object comments For tickets: related object	all objects
host	Hostname or IP address	devices
devices	For probes: probe status (0=Disconnected, 1=Unauthorized, 2=Connected, 3=Banned, 4=Init) For groups: auto-discovery status	probes groups
basetype	Object type (string)	all tree objects
baselink	URL of the object	all tree objects
icon	URL of the device icon	devices
parentid	ID of the parent object or ID of a ticket	all tree objects tickets
location	Location property (used in Geo Maps)	devices
fold	Subobjects are folded up (true) or down (false) For tickets: user (or user group) to which a ticket is assigned read it since last change	probes groups tickets

Column Name	What It Displays	Can Be Used for
groupnum devicenum	Number of groups or devices in the probe or group	probes groups
tickettype	Type of ticket: user, notification, todo	tickets
modifiedby	User who edited the ticket most recently	tickets ticketdata
actions	Types of all ticket edits	ticketdata
content	Text of the ticket that was added with the last edit	ticketdata
channel	Number of channels with an ID greater than or equal to 0	sensors
_key, _value	Key value pair from the system table	sysinfo (category: system)
_displayname, _class, _caption	Display name, class, and caption from the system table	sysinfo (category: hardware)
_user, _domain	User and domain pair from the system table	sysinfo (category: loggedonusers)
_displayname, _creationdate, _processid	Display name, creation date, and process id from the system table	sysinfo (category: processes)
_displayname, _state, _startmode	Display name, state, and start mode from the system table	sysinfo (category: services)
_displayname, _version	Display name and version pair from the system table	sysinfo (category: software)

More

■ KNOWLEDGE BASE

Is there a list of log status values for the PRTG API?

- <https://kb.paessler.com/en/topic/76501>

How can I use the PRTG Application Programming Interface (API)?

- <https://kb.paessler.com/en/topic/593>

Live Data

- [Single Object Property](#) ⁴³⁹⁴
- [Single Object Status](#) ⁴³⁹⁷
- [Multiple Object Property or Status](#) ⁴⁴⁰⁴
- [System Information](#) ⁴⁴²⁰

14.2.2.4 System Information

You can access live data and live status data for system information using the PRTG API.

i Authentication with user name and [passhash](#) ⁴¹²³ (or user name and password) must always be included in each PRTG API request. See section [Authentication](#) ⁴³⁹¹ for more information.

To retrieve system information using API calls, we recommend that you use the following order:

1. Refresh the system information so that it is up to date, if necessary.
For details, see [Scan Now](#) ⁴⁴²⁰.
2. Retrieve generic system information to ensure that the last scan (step 1) was successful and that there are no errors.
For details, see [Generic Data](#) ⁴⁴²¹.
3. Retrieve system information in the form of data tables.
For details, see [Data Tables](#) ⁴⁴²¹.

i System information API calls only support the JavaScript Object Notation (JSON) output.

Scan Now

The following API calls to retrieve new information for a [system information](#) ²³¹ category. To refresh system information via the API, you need to provide

- the ID of a device (parameter id), and
- a kind ([system information category](#) ⁴⁴²¹).

i We recommend that you only refresh system information if absolutely necessary because the refresh triggers a rescan of all system information tables.

Examples

Refresh process information

```
/api/sysinfochecknow.json?id=deviceid&kind=processes
```

Refresh hardware information

```
/api/sysinfochecknow.json?id=deviceid&kind=hardware
```

i sysinfochecknow only supports JSON output.


Supported Output Columns ("kind=" Parameter)

Column Name	Category (as displayed in the PRTG web interface)
system	System
hardware	Hardware
processes	Processes
services	Services
software	Software
loggedonusers	Users

Generic Data

The following API calls retrieve generic data about the system information category since the last scan, for example time stamps and if the last scan was successful. To retrieve this information via the PRTG API, you need to provide

- the ID of a device (parameter id), and
- a kind (system information category).


 Examples

Users

```
/api/sysinfo.json?id=deviceid&kind=loggedonusers
```

Services

```
/api/sysinfo.json?id=deviceid&kind=services
```

 sysinfo only supports JSON output.

Data Tables

The following API calls retrieve all information from a system information category table. To retrieve this information via the PRTG API, you need to provide

- the content type (always sysinfo),
- the category (as displayed in the PRTG web interface),
- columns (see [Supported Output Columns \("columns=" Parameter\)](#)⁴⁴²²), and
- the ID of a device (parameter id).

 Examples

System

```
/api/table.json?
id=deviceid&content=sysinfo&category=system&usecaption=true&headers=key,value&columns=_key,_value
```

Software

```
/api/table.json?
id=deviceid&content=sysinfo&category=software&usecaption=true&headers=key,value&columns=_displayname,_version
```

 Data tables for system information only support JSON output.

Supported Output Columns ("columns=" Parameter)

You can use the following sysinfo-specific column names for the columns parameter (separated by comma, for example, columns=_key,_value).

 For a list of all supported column names, see section [Multiple Object Property or Status](#) .

Column Name	Description	Can Be Used for
_key, _value	Key value pair from the system table	sysinfo (category: system)
_displayname, _class, _caption	Display name, class, and caption from the system table	sysinfo (category: hardware)
_user, _domain	User and domain pair from the system table	sysinfo (category: loggedonusers)
_displayname, _creationdate, _processid	Display name, creation date, and process id from the system table	sysinfo (category: processes)
_displayname, _state, _startmode	Display name, state, and start mode from the system table	sysinfo (category: services)
_displayname, _version	Display name and version pair from the system table	sysinfo (category: software)





More

 KNOWLEDGE BASE

How can I use the PRTG Application Programming Interface (API)?

- <https://kb.paessler.com/en/topic/593>

Live Data

- [Single Object Property](#)  4394
- [Single Object Status](#)  4397
- [Multiple Object Property or Status](#)  4404
- [System Information](#)  4420

14.2.3 Live Graphs

You can use live sensor graphs from PRTG in other web pages using the PRTG API. PRTG renders graphs as .png or .svg files. You can include them in other web pages.

i Authentication with user name and [passhash](#)⁴¹²³ (or user name and password) must always be included in each PRTG API request. See section [Authentication](#)⁴³⁹¹ for more information.

Examples

Live graph as a .png file:

```
/chart.png?type=graph&width=300&height=160&graphid=2&id=0
```

Live graph as an .svg file:

```
/chart.svg?type=graph&width=300&height=160&graphid=2&id=0
```

i To switch between PNG and SVG images, change the file extension of /chart to [.png](#) or [.svg](#).

i The URL does not start with /api. When placing these URLs on web pages, keep in mind that the URLs contain the account user name and password/passhash. This can imply security issues. We recommend that you set up a dedicated [read-only](#)¹⁵⁵¹ user account in PRTG that is member of a dedicated user group, for example, that only has read access to the root group and all underlying entries or, even better, only for the object IDs that are used for graph URLs.

Parameters for Live Graph URLs (chart.png or chart.svg)

Parameter	Description
type	Must be graph
graphid	Select time span of the graph: <ul style="list-style-type: none"> ▪ 0=live ▪ 1=last 48 hours ▪ 2=30 days ▪ 3=365 days
width	Width of the image in pixels
height	Height of the image in pixels
id	The object ID of the desired graph object. This is usually the ID of a sensor.
graphstyling	Allow control of some graph styles: <ul style="list-style-type: none"> ▪ Display legend: graphstyling=showLegend%3D%271%27

Parameter	Description
	<ul style="list-style-type: none"> ▪ Hide legend: graphstyling=showLegend%3D%270%27 ▪ Control font size: graphstyling=baseFontSize%3D%27XX%27 (XX is the font size) ▪ Control legend and font size at the same time: graphstyling=showLegend%3D%271%27+baseFontSize%3D%275%27
bgcolor	<p>Background color of the PNG image, for example, #ffff. This affects the area that surrounds the graph.</p> <p>i The value must be URL encoded, for example, %23ffff.</p>
plotcolor	<p>Color of the graph's plot area, for example, #ffff. This affects the whole area within the graph box.</p> <p>i The value must be URL encoded, for example, %23ffff.</p>
plotcolor1	<p>Alternating color of the graph's plot area, for example, #ffff. This affects the tiles within the graph box alternating with plotcolor2. The result is a striped graph box.</p> <p>i The value must be URL encoded, for example, %23ffff.</p> <p>i This parameter is overwritten when using the parameter plotcolor.</p>
plotcolor2	<p>Alternating color of the graph's plot area, for example, #ffff. This affects the tiles within the graph box alternating with plotcolor1. The result is a striped graph box.</p> <p>i The value must be URL encoded, for example, %23ffff.</p> <p>i This parameter is overwritten when using the parameter plotcolor.</p>
gridcolor	<p>Color of grid lines in the graph's plot area, for example, #ffff. This affects the horizontal and vertical lines within the graph box.</p> <p>i The value must be URL encoded, for example, %23ffff.</p>
hide	<p>Do not show defined channels in the graph. Use the ID of a channel to hide it. For example, use hide=-4 to not show the downtime channel in the graph. To hide more than one channel, use commas to separate the IDs.</p>

Retrieving Chart Legends (JSON)

You can show the legend of a sensor graph (channel IDs, colors, units, channel names) in the JavaScript Object Notation (JSON) format.

 Example

Chart legend in the JSON format:

```
/api/chartlegend.json?id=sensorid
```









More

KNOWLEDGE BASE

How can I use the PRTG Application Programming Interface (API)?

- <https://kb.paessler.com/en/topic/593>

Application Programming Interface (API) Definition

- [HTTP API](#)  4380
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14.2.4 Historic Data

You can download the historic monitoring data for one sensor in the Extensible Markup Language (XML) format or the comma-separated values (CSV) format using the following API calls. You can either request the results of each single monitoring request (called raw data) or you can let PRTG calculate averages of the data (for example, hourly or daily averages).

To avoid potential server overload, the number of requestable values per API call is limited by means of automatic averaging as follows:

Minimum Level of Detail (Average Interval)	Maximum Timeframe per API Call
Raw data (all single monitoring requests)	For up to 40 days per API request
60 minutes/1 hour averages	40 to 500 days per API request
	<p>i If you try to use a larger time span than 500 days, PRTG automatically reduces it to 365 days.</p>

i API calls for historic data are limited to 5 requests per minute.

API Calls for Historic Data

i Authentication with user name and [passhash](#)⁴¹²³ (or user name and password) must always be included in each PRTG API request. See section [Authentication](#)⁴³⁹¹ for more information.

The API calls for historic data tables look like this:

Examples

XML:

```
/api/historicdata.xml?id=objectid&avg=0&sdate=2018-01-20-00-00-00&edate=2018-01-21-00-00-00
```

CSV:

```
/api/historicdata.csv?id=objectid&avg=0&sdate=2018-01-20-00-00-00&edate=2018-01-21-00-00-00
```

JavaScript Object Notation (JSON):

```
/api/historicdata.json?id=objectid&avg=0&sdate=2018-01-20-00-00-00&edate=2018-01-21-00-00-00&usecaption=1
```

i You must supply the object ID of a sensor as well as a start date/time `sdate` and end date/time `edate`.

i If you use the JSON call, additionally provide the parameter `usecaption=1` to get more information than just the raw data table.

API Call for Historic Graphs

Historic graphs are also available (in the PNG format):

Example

PNG:

```
/chart.png?id=objectId&avg=15&sdate=2018-01-20-00-00-00&edate=2018-01-21-00-00-00&width=850&height=270&graphstyling=baseFontSize='12'%20showLegend='1'&graphid=-1
```

Common Parameters for Historic Data API Calls

You can use the following parameters for the graphs and the data tables:

Parameter	Description	Possible Values
id	ID of the specific sensor	integer value
sdate	Start of the time span (date and time)	yyyy-mm-dd-hh-mm-ss
edate	End of the time span (date and time)	yyyy-mm-dd-hh-mm-ss
avg	Average interval in seconds; use 0 to download raw data (= results of all single monitoring requests)	integer value
width/height	Width and height of the graph in pixels	integer value
graphstyling	baseFontSize='x' sets the size of the font showLegend='x' enables (1) or disables (0) the graph legend	baseFontSize='x'%20showLegend='x'

Historic Data Query Builder

You can also use the [historic data function](#) ^[208] to manually generate and analyze historic sensor data via the PRTG web interface.

More

KNOWLEDGE BASE









How can I export historic data from the PRTG API?

- <https://kb.paessler.com/en/topic/76768>

How can I export raw sensor data automatically from PRTG?

- <https://kb.paessler.com/en/topic/343>















Application Programming Interface (API) Definition

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14.2.5 Object Manipulation

You can use the following functions to manipulate objects (URLs are shown without user name or passhash to enhance readability).

In this section:

- [Changing Object Settings](#) 
- [Supported Object Types for rename.htm](#) 
- [Switch Inheritance Off/On](#) 
- [Changing Properties of Channels](#) 
- [Pausing/Resuming](#) 
- [Supported Object Types for pause.htm](#) 
- [Error Handling, Rescanning](#) 
- [Rescanning, Triggering Auto-Discovery](#) 
- [Reordering Objects in the Sensor Tree](#) 
- [Report-related](#) 
- [Notification-related](#) 
- [Adding/Deleting Objects](#) 
- [Supported Object Types for duplicateobject.htm](#) 
- [Duplicating Sensors and Changing Clone Settings](#) 
- [Setting Geo Location](#)

Changing Object Settings

 Authentication with user name and [passhash](#)  (or user name and password) must always be included in each PRTG API request. See section [Authentication](#)  for more information.

Examples

Rename an object:


```
/api/rename.htm?id=objectid&value=newname
```

Set priority of an object (valid values for x are 1 to 5):

```
/api/setpriority.htm?id=objectid&prio=x
```

Change properties of objects:

```
/api/setobjectproperty.htm?id=id_of_object&name=property_name&value=new_value
```

 This function can change most string and number properties of objects (names, numeric values, object identifiers (OID), etc.). Use it with caution. You can discern the `property_name` parameter by opening the Settings page of an object and looking at the HTML source of the INPUT fields. For example, the INPUT field for the tags of an object has the name `tags_`. Leave away the underscore `_` and use `tags` as a value for the `property_name` parameter.

Supported Object Types for rename.htm

rename.htm supports the following object types:

- group
- device
- sensor
- map
- report
- library
- notification template
- schedule
- user
- user group

rename.htm does not support other object types.


Switch Inheritance Off/On

This API call sets the inherit setting of objects (location, credentials, compatibility options, proxy settings, scanning interval, access rights, channel unit). In general, this works like changing properties for any other object.

Example

Replace the parameter inheritType with the name of the inheritance type:

```
/api/setobjectproperty.htm?id=id_of_object&name=inheritType_&value=0_or_1
```

 This internal name must be followed by an underscore (_), in contrast to changing properties above. Use the value 0 for switching off inheritance, and 1 for switching on inheritance. For example, the inheritance type for the scanning interval setting has the name intervalgroup_. Thus, this specific part in the URL is &name=intervalgroup_&value=0 (switches off inheritance for scanning interval).

 This call does not work with the Schedule, Dependencies, and Maintenance Window settings.

Changing Properties of Channels

With this API call, you can change a sensor's [channel settings](#)³⁹⁷⁷. In general, this works like changing properties of any other object. To set channel properties via the PRTG API, you need to provide

- the ID of a sensor (parameter id),
- a subtype (channel for channels), and
- a subid (ID of the channel that you want to edit).

 Example: Enabling and Setting Limits for Channels

Set limits for channels:

```
/api/setobjectproperty.htm?  
id=sensorid&subtype=channel&subid=0&name=limitmaxerror&value=limitvalue
```


 You have to set the limits for a channel before you can enable limits.

Enable limits for channels:

```
/api/setobjectproperty.htm?  
id=sensorid&subtype=channel&subid=0&name=limitmode&value=1
```

For example, the following API call sets the upper error limit of a channel with the ID 0 of a sensor with the ID 2970 to the value 25.

```
/api/setobjectproperty.htm?  
id=2970&subtype=channel&subid=0&name=limitmaxerror&value=25
```

 For Toplists, you can use the subtype toplist to change the properties. When using this subtype, subid is the ID of a Toplist.

 For a list of available channel parameters, see section [Single Object Property](#) .

Pausing/Resuming

 Examples

Pause a sensor or object indefinitely:

```
/api/pause.htm?id=objectid&pausemsg=yourmessage&action=0
```

Pause a sensor or object for x minutes:

```
/api/pauseobjectfor.htm?id=objectid&pausemsg=yourmessage&duration=x
```

 The pause message is optional. You can leave out the parameter &pausemsg=yourmessage if you do not want to display a message.

Simulate an error for a sensor:

```
/api/simulate.htm?id=objectid&action=1
```

 simulate.htm only works for sensors in the Up, Warning, Unusual, or Unknown [status](#) .

Resume monitoring of a sensor or object:

```
/api/pause.htm?id=objectid&action=1
```

Supported Object Types for pause.htm

pause.htm supports the following object types:

- probe
- group
- device

- sensor
- notification
- user account

pause.htm does not support other object types.

Error Handling (Acknowledge Alarm)

Example

Acknowledge the Down status:

```
/api/acknowledgealarm.htm?id=objectid&ackmsg=yourmessage
```

Rescanning, Triggering Auto-Discovery


Examples


Scan a sensor now:

```
/api/scannow.htm?id=objectid
```

Run an auto-discovery for a group or device:

```
/api/discovernow.htm?id=objectid&template=filename
```

 Providing a [device template](#)⁴⁰¹⁹ for auto-discovery is optional. You can leave out the parameter `&template=filename` to run the auto-discovery with the options defined in the object's settings. If you use a template, provide the whole file name including file extension surrounded by double quotes and encode whitespaces, if necessary. Example: `&template="Linux%20SNMP.odt"`

 `discovernow.htm` overrides the Auto-Discovery setting of the target group or device. If it is set to No auto-discovery, it automatically changes to Standard auto-discovery (recommended).

Reordering Objects in the Sensor Tree

Example

Move an object in the sensor tree (x can be up, down, top, bottom):

```
/api/setposition.htm?id=objectid&newpos=x
```

Report-related

Example

Add a group, device, or sensor to a report:

```
/api/reportaddsensor.htm?id=reportid&addid=objectid
```


Notification-related

Example

Trigger a notification immediately for testing purposes:

```
/api/notificationtest.htm?id=objectid
```

```
/api/notificationtest.json?id=objectid
```


 objectid is the ID of the notification template.

Adding/Deleting Objects

Adding and deleting objects in your configuration is the most complex and potentially most critical process when using the PRTG API. Keep in mind that adding or deleting objects is much better guided in the normal PRTG web interface with more warnings and alerts.

 We recommend that you use the PRTG web interface for adding and deleting objects, if possible.

Deleting Objects

 API calls to the delete function immediately delete the referenced object including all subobjects, if there are any. For example, deleting a group deletes all its devices and sensors. There is no way to undo a deletion, so use this function with care.

Example

Delete an object:

```
/api/deleteobject.htm?id=objectid&approve=1
```

Adding Objects

Adding completely new objects from scratch is not supported via the PRTG API because of the complexity of object creation and its parameters. To add new objects to PRTG, create a "master" object that is cloned into new objects.

Supported Object Types for duplicateobject.htm

duplicateobject.htm supports the following object types:

- group
- device
- sensor
- report

- library
- map
- notification template

duplicateobject.htm does not support other object types.

Examples

Duplicate a group:

```
/api/duplicateobject.htm?
id=id_of_group_to_clone&name=new_name&targetid=id_of_target_group
```

Duplicate a device:

```
/api/duplicateobject.htm?
id=id_of_device_to_clone&name=new_name&host=new_hostname_or_ip&targetid=id_of_target_group
```

Duplicate a sensor:

```
/api/duplicateobject.htm?
id=id_of_sensor_to_clone&name=new_name&targetid=id_of_target_device
```

Duplicate a library:

```
/api/duplicateobject.htm?id=id_of_library_to_clone&name=new_name
```

Duplicate a notification template:

```
/api/duplicateobject.htm?id=id_of_notification_template_to_clone&name=new_name
```

- i** If duplicateobject succeeds, the PRTG core server replies with a redirect to the URL of the new object (for example, /sensor.htm?id=1234), so your application should parse the new object ID from this URL.
- i** When a group, device, or sensor is cloned, it is initially set to Paused so you have the chance to edit parameters as desired. You must resume it with an API call afterward.
- i** The API calls for duplicating reports, maps, libraries, and notification templates do not require a targetid.

Duplicating Sensors and Changing Clone Settings

The following process duplicates a sensor, changes some settings, and then starts monitoring:

Example

Duplicate the sensor (the server replies with a redirect to the new object's web page, for example /sensor.htm?id=10214, parse id 10214 from the URL):

```
/api/duplicateobject.htm?id=2002&name=mynewsensor&targetid=2001
```

Rename the new sensor:

```
/api/setobjectproperty.htm?id=10214&name=name&value=newname
```

Change the OID (in this example for an [SNMP Custom sensor](#)²⁴⁵³):

```
/api/setobjectproperty.htm?id=10214&name=oid&value=1.2.3.4.5.6.7
```

Resume monitoring for the new sensor:

```
/api/pause.htm?id=10214&action=1
```

Setting Geo Location

You can set the location of any object via an API call. Provide the object ID together with parameters for location and/or longitude and latitude.

If only the location parameter is specified, the PRTG core server executes the geo location lookup (this can take up to three minutes). Provide the name of the location, for example, New York. It is shown in the Location settings, no matter the longitude or latitude.

If the longitude and latitude parameter is specified, the marker in the map is set to this position, no matter of the location parameter. Provide longitude and latitude separated by a comma, for example - 73.998672,40.714728.

Example

Set the geo location of an object:

```
/api/setlonlat.htm?  
id=objectid&location=name_of_object_location&lonlat=longitude,latitude
```

More

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How can I use the PRTG Application Programming Interface (API)?

- <https://kb.paessler.com/en/topic/593>

Application Programming Interface (API) Definition

- [HTTP API](#)⁴³⁹⁰
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- [Live Graphs](#)⁴⁴²⁴
- [Historic Data](#)⁴⁴²⁷
- [Object Manipulation](#)⁴⁴³⁰
- [Custom Sensors](#)⁴⁴³⁷
- [Custom Notifications](#)⁴⁴⁵²
- [Mini Probe API](#)⁴⁴⁵⁵

14.2.6 Custom Sensors

Custom sensors can perform a number of monitoring tasks that extend the standard sensor set. Apart from parameterized versions of Simple Network Management Protocol (SNMP), Packet Sniffer, and NetFlow sensors, you can create your own sensors using Windows Management Instrumentation Query Language (WQL) or Python, by compiling an .exe file, using any Windows software development tool, and you can request any Representational State Transfer (REST) application programming interface (API) that returns JavaScript Object Notation (JSON) or Extensible Markup Language (XML) and map the results to channels.

The following documentation describes the custom [EXE/Script](#)^[1063], [Python Script](#)^[2092], and [SSH Script](#)^[3273] sensors. The defined XML and JSON formats for the advanced sensors are also used for advanced HTTP data sensors and the [REST Custom](#)^[2151] sensor.

■ For more information about custom sensors based on SNMP, Windows Management Instrumentation (WMI), Packet Sniffing, and xFlow (NetFlow, jFlow, sFlow, IPFIX), see the respective [custom sensors](#)^[3972].

ⓘ For each sensor interval, PRTG can run an external process. The process can be a Windows .exe file, or a .dll, .bat, .cmd, .vbs, or PowerShell file, as well as a Python or Secure Shell (SSH) script.

In this section:

- [Standard and Advanced EXE/Script Sensor](#)^[4437]
- [Standard and Advanced SSH Script Sensor](#)^[4438]
- [Interface Definition for EXE/BAT/CMD/VBS/PowerShell/SSH Sensors](#)^[4438]
- [Return Values for EXE/BAT/CMD/VBS/PowerShell/SSH Sensors](#)^[4438]
- [Standard EXE/Script Sensor](#)^[4439]
- [Standard SSH Script Sensor](#)^[4440]
- [Advanced Script, HTTP Data, and REST Custom Sensors](#)^[4440]
- [Advanced Script, HTTP Data, and REST Custom Sensors: Elements](#)^[4442]
- [Interface Definition for DLL Sensors](#)^[4445]
- [Command-line Parameters](#)^[4449]
- [Escape Special Characters and Whitespaces in Parameters](#)^[4450]
- [Environment Values](#)^[4450]
- [PRTG Sensor Hub](#)

Standard and Advanced EXE/Script Sensor

ⓘ You must create the sensor as a file and store it in a specific subfolder on the probe system. In a cluster, you must store it on each cluster node.

Place executables (.exe, .dll), batch files (.cmd, .bat), VBS scripts (.vbs), or PowerShell scripts (.ps1) into a subfolder of the [PRTG program directory](#)^[4526]. For the standard [EXE/Script sensor](#)^[1063], this is the following subfolder of the PRTG program directory:




```
Custom Sensors\EXE
```

If your executable or script returns XML or JSON, you use it with the [EXE/Script Advanced sensor](#)^[1077]. In this case, store your file in the following subfolder of the PRTG program directory:


```
Custom Sensors\EXEXML
```

You find a sample set of demo sensors in these subfolders, too. As soon as a file is placed into the subfolders mentioned above, you can create your own custom EXE sensor and select the new file from the list of files.

The probe then executes the file on the probe system using the account configured for the PRTG probe service ("system" is the default). The local probe runs the file on the local PRTG core server system. For remote probes, the file actually runs on the remote probe system.

-  We recommend that you not edit the demo files. Create your own new files and make sure to give them unique names that do not start with **Demo**, for example.
-  If your custom sensor code relies on other files (for example, .dll files, .NET framework, Windows PowerShell) you must manually copy or install these files on the probe system.
-  EXE sensors fail if they attempt to open any graphical user interface windows using the Win32 APIs. This is not allowed for processes that are started by a system service.

Standard and Advanced SSH Script Sensor

-  You must create the sensor as an SSH script and place it in a specific directory on the target system running your Linux/Unix installation where the script is executed.


Place your SSH script files for the standard [SSH Script sensor](#)^[3273] in the following directory of the target system:

```
/var/prtg/scripts
```

If your SSH script returns XML or JSON, you use it with the [SSH Script Advanced sensor](#)^[3288]. In this case, store your file in the following directory of the target system:


```
/var/prtg/scriptsxml
```

As soon as a file is placed into the respective directory, you can create your own SSH script sensor and select the new script file from the list of scripts.

-  With each scanning interval, PRTG executes the script on the target system and receives the result as a sensor result.

Interface Definition for EXE/BAT/CMD/VBS/PowerShell/SSH Sensors

Every time the sensor is run, the selected file is executed. The string entered in the Parameters field of the sensor's settings is used as command line (you can use placeholders, see [Command-line Parameters](#)^[4489]). The executable file must send the results to the Standard OUT. For the format of returned data, see below.

-  If the executable file does not return control to the PRTG process, it is killed as soon as the timeout value set for this sensor is reached.

You can test the .exe file that you want to use for the sensor via the command line (cmd.exe). To do so, start the .exe file and pipe the results into a file.

 Example

```
sensorexex parameter > result.txt
```

The results are written into the file result.txt and you can check the results with notepad or any other text editor.

Remarks

- For PowerShell scripts, make sure that they are executed by either signing the files or changing the security policy for Powershell.exe accordingly.
- In SSH scripts, you can use alphanumeric characters and the special characters ".", "_", "-", "=", and "/" outside of quoted strings in the Parameters field of the sensor's settings.
- The API interface for custom EXE sensors is compatible with the custom EXE sensors provided by PRTG.


Return Values for EXE/BAT/CMD/VBS/PowerShell/SSH Sensors

The expected return values are different, depending on the type of EXE/Script sensor used. The standard sensor needs a simple value:message pair. The EXE/Script Advanced sensor processes an XML or JSON return value. When using the standard SSH Script sensor, it expects returncode:value:message as result. See details below.

Standard EXE/Script Sensor

The returned data for standard EXE/Script sensors must be in the following format:

```
value:message
```

 Value has to be a 64-bit integer or float. It is used as the resulting value for this sensor (for example, bytes, milliseconds) and stored in the database. The message can be any string (maximum length: 2000 characters).

The exit code of the executable file has to be one of the following values:

Value	Description
0	OK
1	WARNING
2	System Error (for example, a network/socket error)
3	Protocol Error (for example, web server returns a 404)

Value	Description
4	Content Error (for example, a web page does not contain a required word)

Standard SSH Script Sensor

The returned data for standard SSH Script sensors must be in the following format:

```
returncode:value:message
```

i Value has to be a 64-bit integer or float. It is used as the resulting value for this sensor (for example, bytes, milliseconds) and stored in the database. The message can be any string (maximum length: 2000 characters).

The SSH script returncode has to be one of the following values:

Value	Description
0	OK
1	WARNING
2	System Error (for example, a network/socket error)
3	Protocol Error (for example, web server returns a 404)
4	Content Error (for example, a web page does not contain a required word)

Advanced Script, HTTP Data, and REST Custom Sensors

The returned data for the [EXE/Script Advanced](#)^[1077], [Python Script Advanced](#)^[2092], [SSH Script Advanced](#)^[3288], [HTTP Push Data Advanced](#)^[1326], [HTTP Data Advanced](#)^[1261], and [HTTP IoT Push Data Advanced](#)^[1290] sensors must be in XML or JSON format, the REST configuration file for the [REST Custom sensor](#)^[2151] must be available as JSON template.

Most parameters have a default value and are not required. The following minimum examples leave most parameters to their default values and return two static channel values.

Examples

XML Return Format: Minimum Example:

```
<prtg>
<result>
<channel>First channel</channel>
<value>10</value>
</result>
<result>
<channel>Second channel</channel>
<value>20</value>
</result>
</prtg>
```

To return an error, the XML format is:

```
<prtg>
<error>1</error>
<text>Your error message</text>
</prtg>
```

JSON Return Format: Minimum Example

```
{
  "prtg": {
    "result": [
      {
        "channel": "First channel",
        "value": 10
      },
      {
        "channel": "Second channel",
        "value": 20
      }
    ]
  }
}
```

To return an error, the JSON format is:

```
{
  "prtg": {
    "error": 1,
    "text": "Your error message"
  }
}
```

i You can find a more detailed demo script for the EXE/Script Advanced sensor in the \Custom Sensors\EXEXML subfolder of the [PRTG program directory](#)⁴⁵²⁶. You find demo files for other sensors in the Custom Sensors folder as well.

Advanced Script, HTTP Data, and REST Custom Sensors: Elements

You can optionally define the encoding of your .xml file at the beginning of the document. For example, to define UTF-8, you would use:

```
<?xml version="1.0" encoding="UTF-8" ?>
```

You can use the following elements in the section between <result> and </result>. In each section, you can return one channel. You can define a maximum of 50 channels.

- i** If you exceed this limit, PRTG tries to display all channels. However, be aware that this is an unsupported procedure and you experience limited usability and performance.
- i** For XML output, the tag names are not case-sensitive. For example, you can use both "VALUE" and "value". For JSON output, the tag names are case-sensitive but you can also use lowercase. For example, you can use both "CustomUnit" and "customunit".

Tag	Mandatory	Description	Possible Content
<Channel>	Yes	Name of the channel as displayed in user interfaces. i This parameter is required and must be unique for the sensor.	Any string
<Value>	Yes	The value as integer or float. i Make sure the <Float> setting matches the kind of value provided. Otherwise PRTG shows 0 values.	Integer or float value
<Unit>	No	The unit of the value. The default is Custom. This is useful for PRTG to convert volumes and times.	BytesBandwidth BytesDisk Temperature Percent TimeResponse TimeSeconds Custom Count CPU: This is a % unit that is accounted to the CPU load in index graphs. BytesFile

Tag	Mandatory	Description	Possible Content
			SpeedDisk SpeedNet TimeHours
<CustomUnit>	No	If Custom is used as unit, this is the text displayed behind the value.	Any string (keep it short)
<SpeedSize> <VolumeSize>	No	Size used for the display value. For example, if you have a value of 50000 and use Kilo as size, the display is 50 kilo #. The default is One (value used as returned). For the Bytes and Speed units, this is overridden by the setting in the user interface.	One Kilo Mega Giga Tera Byte KiloByte MegaByte GigaByte TeraByte Bit KiloBit MegaBit GigaBit TeraBit
<SpeedTime>	No	See above, used when displaying the speed. The default is Second.	Second Minute Hour Day
<Mode>	No	Select if the value is an absolute value or counter. The default is Absolute.	Absolute Difference
<Float>	No	Define if the value is a float. The default is 0 (no). If set to 1 (yes), use a dot as decimal separator in values. i Define decimal places with the <DecimalMode> element.	0 (= no, integer) 1 (= yes, float)

Tag	Mandatory	Description	Possible Content
<DecimalMode>	No	<p>Init value for the Decimal Places option. If 0 is used in the <Float> element (use integer), the default is Auto. Otherwise (for float) the default is All.</p> <p>i You can change this initial setting later in the sensor's channel settings³⁹⁷⁷.</p>	<p>Auto</p> <p>All</p>
<Warning>	No	<p>If enabled for at least one channel, the entire sensor is set to the Warning status. The default is 0 (no).</p>	<p>0 (= no)</p> <p>1 (= yes)</p>
<ShowChart>	No	<p>Init value for the Show in graphs option. The default is 1 (yes).</p> <p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	<p>0 (= no)</p> <p>1 (= yes)</p>
<ShowTable>	No	<p>Init value for the Show in tables option. The default is 1 (yes).</p> <p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	<p>0 (= no)</p> <p>1 (= yes)</p>
<LimitMaxError >	No	<p>Define an upper error limit for the channel. If enabled, the sensor is set to the Down status if this value is exceeded and the LimitMode is activated.</p> <p>i Provide the value for the limit in the unit of the base data type as it is used in the <Value> element of this section. When a sensor shows the Down status triggered by a limit, it still receives data in its channels.</p>	<p>String with numbers, surrounded by quotation marks ("")</p>

Tag	Mandatory	Description	Possible Content
		<p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	
<LimitMaxWarning>	No	<p>Define an upper warning limit for the channel. If enabled, the sensor is set to the Warning status if this value is exceeded and the LimitMode is activated.</p> <p>i Provide the value for the limit in the unit of the base data type as it is used in the <Value> element of this section. When a sensor shows the Down status triggered by a limit, it still receives data in its channels.</p> <p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	String with numbers, surrounded by quotation marks ("")
<LimitMinWarning>	No	<p>Define a lower warning limit for the channel. If enabled, the sensor is set to the Warning status if this value falls below the defined limit and the LimitMode is activated.</p> <p>i Provide the value for the limit in the unit of the base data type as it is used in the <Value> element of this section. When a sensor shows the Down status triggered by a limit, it still receives data in its channels.</p> <p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	String with numbers, surrounded by quotation marks ("")

Tag	Mandatory	Description	Possible Content
<LimitMinError>	No	<p>Define a lower error limit for the channel. If enabled, the sensor is set to the Down status if this value falls below the defined limit and the LimitMode is activated.</p> <p>i Provide the value for the limit in the unit of the base data type as it is used in the <Value> element of this section. When a sensor shows the Down status triggered by a limit, it still receives data in its channels.</p> <p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	String with numbers, surrounded by quotation marks ("")
<LimitErrorMsg> >	No	<p>Define an additional message. It is added to the sensor's message when entering the Down status that is triggered by a limit.</p> <p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	Any string
<LimitWarningM sg>	No	<p>Define an additional message. It is added to the sensor's message when entering the Warning status that is triggered by a limit.</p> <p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	Any string

Tag	Mandatory	Description	Possible Content
<LimitMode>	No	<p>Define if the limit settings defined above are active. The default is 0 (no; limits inactive). If 0 is used, the limits are written to the channel settings as predefined values, but limits are disabled.</p> <p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	<p>0 (= no)</p> <p>1 (= yes)</p>
<ValueLookup>	No	<p>Define if you want to use a lookup file (for example, to view integer values as status texts). Enter the ID of the lookup file that you want to use, or omit this element to not use lookups.</p> <p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	Any string
<NotifyChanged >	No	<p>If a returned channel contains this tag, it triggers a change notification that you can use with the change trigger to send a notification.</p>	No content required

You can use the following elements in the section between <prtg> and </prtg>, outside the <result> section.

i For XML output, the tag names are not case-sensitive. For example, you can use both "TEXT" and "text". For JSON output, the tag names are case-sensitive but you can also use lowercase. For example, you can use both "Text" and "text".

Tag (Case Insensitive)	Mandatory	Description	Possible Content
<Text>	No	Text the sensor returns in the Message field with every scanning interval. There can be one message per sensor, regardless of the number of channels. The default is OK. i This element has to be provided outside of the <result> element.	Any string Maximum length: 2000 characters i The number sign (#) is not supported in sensor messages. If a message contains a number sign, the message is clipped at this point.
<Error>	No	If enabled, the sensor returns an error status. This element can be combined with the <Text> element to show an error message. The default is 0. i This element has to be provided outside of the <result> element. A sensor in this error status cannot return any data in its channels. If used, all channel values in the <result> section are ignored.	0 (= no) 1 (= yes, set sensor to error; ignore <result> section)

- i** Each run (sensor scan) might return either any number of channels (<result>...</result>) or one error response. It is not possible to mix result and error entries.
- i** You can either write the XML output to standard OUT line by line, or give back the entire expression in one line without breaks.

Interface Definition for DLL Sensors

Every time the sensor is to be checked, a function in the selected .dll file is called. The .dll file must export one function:

```
function perform(para,msg:pchar):integer; stdcall;
```

para and msg are zero-terminated strings. The allocated buffer for msg is 255 bytes, the .dll file must make sure that fewer bytes are returned. Msg must be in the following format:

```
value:message
```

Value has to be an 32-bit integer and is used as the resulting value for this sensor (for example, bytes, milliseconds, etc.), message can be any string and is stored in the database.

- i** The integer return value of the perform function has to conform to the same rules as the EXE exit code mentioned above.
- i** If the function call in the .dll file does not return control, it could block the whole PRTG system. Make sure to handle your own timeouts and build in a reliable error management. For this reason, EXE sensors are recommended.

Command-line Parameters

In the parameter field, you can use the following placeholders:

Placeholder	Description
%sensorid	The ID of the EXE/Script sensor.
%deviceid	The ID of the device the sensor is created on.
%groupid	The ID of the group the sensor is created in.
%probeid	The ID of the probe the sensor is created on.
%host	The IP address/DNS name entry of the device the sensor is created on.
%device	The name of the device the sensor is created on.
%group	The name of the group the sensor is created in.
%probe	The name of the probe the sensor is created on.
%name	The name of the EXE/Script sensor.
%windowsdomain	The domain for Windows access (may be inherited from parent).
%windowsuser	The user name for Windows access (may be inherited from parent).
%windowspassword	The password for Windows access (may be inherited from parent).
%linuxuser	The user name for Linux access (may be inherited from parent).
%linuxpassword	The password for Linux access (may be inherited from parent).
%snmpcommunity	The community string for SNMP v1 or v2 (may be inherited from parent).

- i You need to escape placeholders that you use in the parameter field with quotes so that they can be correctly resolved from the command line.
 - i You need to escape special characters and whitespaces in your parameters and surround them with double quotes. See section [Escape Special Characters and Whitespaces in Parameters](#)^[3285] for details.
 - i In SSH scripts, you can use alphanumeric characters and the special characters ".", "_", "-", "=", and "/" outside of quoted strings.
- See section [Inheritance of Settings](#)^[142] for more information on inherited settings.

Escape Special Characters and Whitespaces in Parameters

You need to escape special characters in parameters that you pass to an executable or script and surround them with quotation marks to make sure that the characters are correctly interpreted. PowerShell scripts in particular require adequate escaping so that the parameters are passed in a valid PowerShell syntax. PRTG automatically does most of the escaping for you.

Follow these rules to escape special characters and whitespaces in the parameters fields:

- Use quotes for parameters that contain whitespaces.

```
-name "Mr John Q Public"
-name 'Mr John Q Public'
```

- Use double quotes for parameters that contain single quotes.

```
-name "Mr 'John Q' Public"
```

- Use single quotes for parameters that contain double quotes.

```
-name 'Mr "John Q" Public'
```

- Use a backslash (\) to escape and pass a literal double quote.

```
-name pub\"lic
```

- Use double quotes for parameters that contain double and single quotes and escape double quotes.

```
-name "pu'b\"lic"
```

- i In SSH scripts, you can use alphanumeric characters and the special characters ".", "_", "-", "=", and "/" outside of quoted strings.
- i We recommend that you do not pass passwords in parameters. Use placeholders instead. See section [Custom Sensors](#)^[4450] for details.

Environment Values


If the Set placeholders as environment values option is enabled in the sensor's settings, the values of all placeholders available for [command-line parameters](#)^[4450] are additionally provided as "Environment Variables" during run time, so you can use them in your executable or script file. The variables' names are the same as for placeholders mentioned above, with the prefix prtg_ and without the % character. For example, refer to the sensor's own name by using the variable prtg_name.

Additionally, the following variables are available:

Variable	Description
prtg_version	The version number of your PRTG installation.
prtg_url	The IP address/DNS name of your PRTG installation.
prtg_primarychannel	The ID of the sensor's primary channel (1 if not set).

More

You can find sample projects for these custom sensors and more information about custom scripts here:

- \Custom Sensors\EXE subfolder of the [PRTG program directory](#) .

KNOWLEDGE BASE

Custom sensors

- <https://kb.paessler.com/en/tags/custom-script-exe>

Guide for PowerShell-based custom sensors









- <https://kb.paessler.com/en/topic/71356>

PAESSLER WEBSITE

You can find scripts for custom sensors that were written by dedicated PRTG customers in the PRTG Sensor Hub.

- <https://www.paessler.com/sensor-hub>

Application Programming Interface (API) Definition

- [HTTP API](#) 
- [Live Data](#) 
- [Live Graphs](#) 
- [Historic Data](#) 
- [Object Manipulation](#) 
- [Custom Sensors](#) 
- [Custom Notifications](#) 
- [Mini Probe API](#) 

14.2.7 Custom Notifications

In addition to the various standard methods for notifications, you can define your own notifications that can trigger desired actions. The following documentation describes these custom notifications. You can also combine different notification methods in one notification.

■ For more general information about notifications based on email, messaging, and others, see section [Notifications](#)⁴⁰³¹.

Execute HTTP Action

This notification method executes a GET request or sends any POST, PUT, or PATCH data to a custom URL. You can execute specific actions on a web server or control any web service that accepts commands via one-time HTTP requests. Whenever a notification of this kind is triggered, the HTTP action is sent.

With this method, you can also call any application programming interface (API) function of the PRTG web interface. For example, you can automatically pause a sensor or acknowledge an alarm.

ⓘ Authentication with user name and [passhash](#)⁴¹²³ (or user name and password) must always be included in each PRTG API request. See section [Authentication](#)⁴³⁹¹ for more information.

Examples

To automatically pause the sensor that triggers the notification, enter the following HTTP action:

```
http://yourserver/api/pause.htm?id=%  
sensorid&action=0&username=myuser&password=mypassword
```

To use the notification to automatically acknowledge the alarm that triggered it, enter this HTTP action:

```
http://yourserver/api/acknowledgealarm.htm?id=%sensorid&ackmsg=Auto-  
Acknowledged&username=myuser&password=mypassword
```

■ For more information about authentication within the URL and for other possible actions you can configure, see sections [HTTP API](#)⁴³⁹⁰ and [Object Manipulation](#)⁴⁴³⁰.

Execute Program

With this notification method, you can execute a script or a program as an external process. It can be a Windows executable file or a .bat, .cmd, or PowerShell file. You can use .exe, .com, .bat, .cmd, .vbs, or .ps1 files.

ⓘ You must create the notification as a file and place it in a specific subfolder on the PRTG core server system (in a cluster, copy the files to every cluster node).

Place executables (.exe, .com), batch files (.cmd, .bat), VBS scripts (.vbs), or PowerShell scripts (.ps1) into the folder:



```
\Notifications\EXE
```

As soon as a file is placed into the subfolder, you can create or edit your own custom execute program notification and select the new file from the list of files. You can also enter start parameters and use PRTG placeholders for this.

Notes

- PRTG executes the file on the local PRTG core server system using the account configured for the PRTG core server service ([system](#) is default).
- If your custom notification's code relies on other files (for example, .dll, .NET framework, or Windows PowerShell), you must copy/install these files on the PRTG core server system manually.
- Make sure the return code of the executable is 0 (zero). Otherwise PRTG assumes something went wrong with the notification and tries to send it up to 3 times.
- If you run PRTG in a cluster, copy the respective files to every cluster node to make sure the notification also works when the primary master node is not reachable.
- EXE notifications fail if they attempt to open any graphical user interface windows using the Win32 APIs (this is not allowed for processes that are started by a system service).
- To remotely run PowerShell scripts, make sure that you set the according Execution Policy. For more information, see the Knowledge Base: [PowerShell 32 Bit and 64 Bit and Execution Policy](#).

Placeholders

 For more information about the placeholders you can use, see section [List of Placeholders for Notifications](#) 

PRTG Sensor Hub

You can find scripts for custom sensors that were written by dedicated PRTG customers in the [PRTG Sensor Hub](#).

More

KNOWLEDGE BASE







Custom notifications

- <https://kb.paessler.com/en/tags/custom-notification>



PowerShell 32 bit or 64 bit and Execution Policy

- <https://kb.paessler.com/en/topic/20443>

Application Programming Interface (API) Definition

- [HTTP API](#) 
- [Live Data](#) 
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Part 14: Advanced Topics | 2 Application Programming Interface (API) Definition
7 Custom Notifications

- [Custom Notifications](#)  4452
- [Mini Probe API](#)  4455

14.2.8 Mini Probe API

Important Notice

We do not further develop the Mini Probe API because we plan major changes to the underlying PRTG API. You can still use the Mini Probe API "as is" but note that it may be deprecated at any time.

■ Knowledge Base: [Where can I find PRTG Mini Probes which are ready to use?](#)

Mini probes allow users to create small probes on any device to meet specific needs. In general, probes are the part of PRTG that run monitoring processes and deliver monitoring results back to the PRTG core server. Mini probes gather monitoring data from platforms where it is not possible or is inapplicable to use the common local and remote probes of PRTG. Mini probes have a less complex implementation than standard probes so that you can create them on any platform. The only requirement is HTTPS connectivity to send monitoring data to your PRTG core server.









i With the current version of PRTG, you can use the mini probe interface with your custom code to implement solutions to special scenarios that you might have in your network. Note that there are major changes planned to the underlying PRTG API. Therefore, any code you write now likely needs to be changed later, so it can be used for future versions of PRTG. For example, if the available HTTP Push sensors are not sufficient for your needs, you can still use the Mini Probe API.

i Because the mini probe requires a Secure Sockets Layer (SSL) secured connection to the PRTG core server, it is not possible by default to connect if SSL is deactivated for PRTG. This is necessary because probably unencrypted passwords are transferred between the probe and the PRTG core server. So it is important to encrypt the connection even on internal routes. If your network setup ensures security in a different way (for example, a VPN), you can use a registry key option for disabling SSL to get a connection to your mini probe.

■ For more details, see the Knowledge Base: [How can I disable SSL for Mini Probes?](#)

☁ The Mini Probe API is not available in PRTG Hosted Monitor.

In this section:

- [Differences Between Probe Types](#)  4456
- [The PRTG Mobile Probe Protocol](#)  4457
 - [Communication and Security](#)  4457
 - [Authentication](#)  4457
 - [HTTP Requests](#)  4457
- [JSON Definition](#)  4459
 - [Sensor Definition](#)  4459
 - [Tasks Definition](#)  4464
 - [Data Definition](#)

Differences Between Probe Types

The following table shows technical specifications of the two probe types in PRTG.

Functionality	Local and Remote Probes	Mini Probe
Connection Protocol from Probe to PRTG Core Server	Protocol from PRTG	HTTPS
Security	Data is secured with SSL and an access key. New probe connections must be approved by an administrator. IP address and globally unique identifier (GUID) filtering is possible.	The same security level as for local and remote probes.
Estimated Limit for Sensors per Probe	Several thousand sensors	Fewer than 100 sensors
Estimated Limit for Probes per Installation	Hundreds of probes	Fewer than 100 probes
Estimated Minimum Scanning Interval	Some seconds	At least 60 seconds
Estimated Number of Sensors	More than 200	A few
Updates to New PRTG Versions by the PRTG Core Server	Yes	No
Complexity	High	Very low
Documented API	No	Yes
Supported Platforms	Windows 7 or later (32-bit/64-bit)	Any platform
Scheduling of Sensor Requests Performed by	Probe	Probe
Code Managed by	Paessler AG	Writer of the probe
Probe Scans for Available Measurements Beforehand	Yes	No
Sensors Support Inheritance of Settings ^[142]	Yes	No

Functionality	Local and Remote Probes	Mini Probe
Limitations by Administrator for Allowed Sensors that a User Can Create	Yes	No

The PRTG Mini Probe Protocol

The PRTG Mini Probe Protocol (PMPP) is a simple, lightweight protocol that extends PRTG with custom remote probes. It can be implemented in a variety of programming languages and runs on any kind of platform. These include, for example, Linux, Android, macOS, and iOS.

i Mini probes are not intended for high performance monitoring and support only the sensors that you implement.

Communication and Security

The PMPP uses GET and POST requests via HTTPS to communicate with the PRTG core server. All requests are sent to the defined Transmission Control Protocol (TCP) port for the common PRTG web server (the default is 443 for SSL), or you specify an extra port explicitly for mini probe connections in the [Core & Probes](#) settings. Mini probes use the GET method to receive tasks, and the POST method to send information about the probe and the monitoring results to the PRTG core server.

i The data format of some HTTP fields has to be JavaScript Object Notation (JSON) encoded. See [JSON Definitions](#) for data definitions that require JSON. All exchanged data is secured with SSL.

Authentication

The PMPP uses the same authentication methods as the common remote probes in PRTG. The authentication includes the following steps:

- Allow and deny IPs filter
- Deny global ID (GID) filter
- Access key
- Unique GID that must be approved in the PRTG web interface
- In addition, mini probes must be allowed to connect in the probe connection settings in PRTG. Additionally, you have to provide the mini probe's IP address in the Allow IP Addresses field (or enter any).

There are no sessions on the server: Every request must contain the required authentication information.

■ For more details, see section [Core and Probes](#).

HTTP Requests


The PMPP includes three different HTTP requests that are sent to the PRTG web server:

- **announce:** An announce request is sent once when the probe starts. Afterward, the task and data commands are run in a scheduled manner.
- **tasks:** With a tasks request, the probe requests a list of tasks to perform.
- **data:** The data request sends the monitoring results to the core.

All requests of the mini probe to the PRTG core server must contain the following HTTP fields:


- **gid:** The unique GID of the probe. We recommend a GUID that is generated by the operating system. This identifier must stay the same for as long as the probe installation exists. You can use any string. If you clone a probe, you have to update this field to a new value.
- **key:** An access key as defined in the probe settings of the PRTG core server. The key has to be encoded in SHA1 hash (for example, key=a94a8fe5ccb19ba61c4c0873d391e987982fbbd3).
- **protocol:** The version of the protocol you use. Currently, this value is "1"

All requests return common HTTP response codes.



 For more information, see section [HTTP API](#) .


Announce Request

The announce request uses the POST method and provides all required information about the capabilities of the mini probe for the PRTG core server. The target URL is `https://<yourPRTGserver>/probe/announce`

 This HTTP request must be sent at least once to be able to add sensors. We recommend you send this request every time the probe starts. You should NOT send it with every scanning interval.

The announce request must contain the following HTTP fields:

- **name:** The name of the mini probe. PRTG uses this name to create a corresponding node in the device tree.
- **version:** The version number of the mini probe you have implemented. This is a single integer number, for example, "1".
- **baseinterval:** The number of seconds between two calls of the task/data requests. We recommend 60 or 300 seconds. Depending on the usage, higher or lower values are possible.
- **sensors:** The definition of supported sensors in JSON format.
 See [Sensor Definition](#)  for more information.
- **icon (optional):** You can optionally send the file name of a device icon to show it for the mini probe device in the PRTG web interface.

 If you change the definition of a sensor that has already been announced, these changes are only active after the next start of PRTG. A definition never changes while PRTG is running. However, there is one exception: Setting the "deprecated" flag works without any restart. Because of this, you can replace a sensor with a new one that uses a different definition.

Tasks Request

The tasks request uses the GET method and is sent from your mini probe in the defined scheduler interval to the PRTG core server (for example, every 5 minutes). The target URL is

```
https://<PRTGserver>/probe/tasks
```


This HTTP request returns a list of tasks in JSON format that have to be run by the mini probe.

See [Tasks Definition](#) ⁴⁴⁶⁴ for more information.

Data Request

The data request uses the POST method and contains the HTTP field data. This HTTP field contains any number of sensor results in JSON format. The target URL is

```
https://<PRTGserver>/probe/data
```

You can split the results of one tasks list into several result requests (for example, if some sensors are faster than others). The mini probe should combine as many results as possible into one request but keep the time between measurement and reporting of the value at a low level.


See [Data Definition](#) ⁴⁴⁶⁶ for more information.

JSON Definition

All data definitions of sensors, tasks, and result data of mini probes are JSON encoded. JSON is a language-independent data format that is used to transmit data objects consisting of attribute-value pairs between a server and an application. Refer to the JSON documentation for a general overview of this data format.

Sensor Definition

This section shows how you can define the available sensors for your mini probe. Sensor definitions are specified in the HTTP field "sensors" of the announce request. The sensor types definition is a JSON array where each sensor type is defined in one array element as a JSON object. A JSON object denoting a sensor definition consists of the following JSON name/value pairs:

Name	Mandatory	Description	Possible Value
kind	X	Unique identifier for the sensor type in the mini probe. Used in the tasks definition to identify the sensor type.  Underscore "_" is not allowed here.	Any string
name	X	The display name of the sensor.	Any string
deprecated	—	You can flag the sensor to status deprecated. A flagged sensor can still run but this kind of sensor is not shown when you add new sensors to the probe.	1 (= deprecated) 0 (= not deprecated)

Name	Mandatory	Description	Possible Value
description	—	A short description of the sensor that is shown in the Add Sensor dialog in the PRTG web interface.	Any string
help	—	A help text that is shown in a popup in the Add Sensor dialog in the PRTG web interface.	Any string
tag	—	A default tag for the sensor that is automatically added to the sensor.	Any string
default	—	A sensor of this type is automatically created with the probe if set to "default".	(= set to default) 0 (= not default)
groups	—	In the "groups" array, available settings for this sensor type are defined.	An array of grouped settings JSON objects. ⓘ See Definition of Setting Groups Objects for more information.

Definition of Setting Groups Objects

One settings group definition (one element of the "groups" array) consists of three elements:

Name	Mandatory	Description	Possible Value
name	X	The internal name of the settings group.	Any unique string
caption	X	The label of the settings group as shown in the PRTG web interface.	Any string
fields	X	The available settings of the settings group.	An array of field definition objects. ⓘ See Parameters for Setting Fields for more information.

Parameters for Setting Fields

The following table shows available JSON name/value pairs for setting fields:

Name	Mandatory	Description	Available in Type	Possible Value
type	X	Type of the field. This defines the possible content.	All	Edit Password Integer Radio i See Definition of Setting Fields: Field Types ⁴⁴⁶² for more information.
name	X	The internal name of the field. The name has to be unique per sensor. It is sent with the settings of the probe in the task request.	All	Any unique string
caption	X	The label of the field. It is displayed left of the field.	All	Any string
required	—	If a field is defined as required, this field has to be set when adding or editing the sensor settings. The default is not required.	All	0 (= not required) 1 (= required)
default	—	The default value of the field.	All	Any string or integer (depending on the field type)
help	—	A help text that is displayed right of the field. i You can use limited BBCode: "[b]" and "[/b]" for bold, "[i]" and "[/i]" for italics, and "[br]" for line break.	All	Any string

Name	Mandatory	Description	Available in Type	Possible Value
maximum	—	The maximum value that is allowed for this field.	Integer	Integer
minimum	—	The minimum value that is allowed for this field.	Integer	Integer
options	—	A JSON array that provides several radio buttons to choose a desired option.	Radio	"name":"value" pairs. See Example below.

 Example

"name":"value" pairs that define radio button options:

```
{
  "1":"This is option 1",
  "2":"This is option 2",
  "XYZ":"Another option"
}
```

Definition of Setting Fields: Field Types

A sensor type can have any number of setting fields that are organized in groups of settings. One field is one element in the "fields" array of a settings group. Currently, mini probes support four different field types for settings:

- edit: One line edit field.
- password: An edit field with masked characters.
- integer: A number field with optional minimum/maximum selection.
- radio: A selection of multiple options with radio buttons.

 Example

The following is a detailed example that shows the JSON object definition of a sensor type that is used in the HTTP field sensors of the announce request.

This sensor type is called Sample Sensor and is from the type Sample. It has a description, a help text, and a default tag. There are two setting groups, Group and group2, with several setting fields (six in the first group, one in the second group). The example also shows how you can use the available JSON name/value pairs in the fields array object.

```
[
  {
    "kind": "Sample",
    "name": "Sample Sensor",
    "description": "This is a sample demo sensor",
    "help": "This is the help text of the demo sensors",
    "tag": "demosensor",
    "groups": [
      {
        "name": "Group",
        "caption": "Group",
        "fields": [
          {
            "type": "edit",
            "name": "simpleedit",
            "caption": "Edit Field",
          },
          {
            "type": "edit",
            "name": "extendededit",
            "caption": "Edit Field 2",
            "required": "yes",
            "default": "Default Value",
            "help": "Help text displayed to the right of the field"
          },
          {
            "type": "integer",
            "name": "simplenumber",
            "caption": "Number",
          },
          {
            "type": "integer",
            "name": "number2",
            "caption": "Number 2",
            "required": "1",
            "minimum": 23,
            "maximum": 99,
            "help": "Number field with limit 23-99"
          },
          {
            "type": "password",
            "name": "password",
          }
        ]
      }
    ]
  }
]
```

```

        "caption": "Password",
        "help": "This is a password field"
    },
    {
        "type": "radio",
        "name": "radiotest",
        "caption": "Radio test",
        "help": "This is a radio selection field",
        "options": {
            "1": "This is option 1",
            "2": "This is option 2",
            "3": "This is option 3"
        },
        "default": "2"
    },
    ]
},
{
    "name": "group2",
    "caption": "Group 2",
    "fields": [
        {
            "name": "testfield2",
            "caption": "Test2",
            "type": "edit"
        }
    ]
}
]
}
]

```

Tasks Definition

A tasks definition is a JSON array where each task is one object. Tasks contain all name/value pairs as defined in the sensor settings definition, which are filled with the values you have provided. Additionally, the following information is included:

Name	Mandatory	Description	Possible Value
kind	X	The type of the sensor.	String

Name	Mandatory	Description	Possible Value
sensorid	X	The ID of the sensor.	Integer
host	X	The IP address/DNS name of the parent device as specified for this device. For the probe device, it is 127.0.0.1 by default.	IP address/DNS name
all defined fields	X	All fields that are defined in the sensor setting group objects are included in the tasks definition as name/value pairs.	name/value pairs

i This data comes from PRTG, so the mandatory JSON objects are included automatically.

Example

Definition of two tasks, the first one is the simplest possible one without any values, and the second one uses the sensor settings objects as defined above:

```
[
  {
    "sensorid": "2009",
    "kind": "ping",
    "host": "www.google.com"
  },
  {
    "sensorid": "2010",
    "kind": "sample",
    "host": "www.paessler.com",
    "simpleedit": "Test2",
    "extendededit": "Extended Test",
    "simplenumber": "3",
    "number2": "42",
    "password": "masked text",
    "radiotest": "1",
    "testfield2": "This is test 3"
  }
]
```

Data Definition

A data definition is a JSON array where each result of a task is one object. Every array element contains the following name/value pairs:

Name	Mandatory	Description	Possible Value
sensorid	X	The ID of a specific sensor.	Integer
time	—	<p>The time of measurement in Coordinated Universal Time (UTC)/GMT time zone as a JSON number in the Unix time format (in milliseconds since Unix epoch, which is 00:00:00 UTC on January 1, 1970). Time values must be strictly chronological, so the Unix time of each measurement must be greater than the one before. The time values should be close to the current time (which is now) to prevent sensors in the Unknown status¹⁹⁷.</p> <p>i If no time value is provided, the current time (now) is used.</p>	JSON number defining Unix time
message	—	An optional text message.	Any string
channel	X	The channel result values.	<p>An array of name/value pairs.</p> <p>i See Parameters for Data Definitions: Channel Result Values⁴⁴⁶⁷ for more information.</p>

Examples

Data definition object with sensor status OK:


```
[
  {
    "sensorid":"2003",
    "message":"Optional Message",
    "channel":[
      {
        "name":"Time",
        "mode":"integer",
        "unit":"TimeResponse",
        "value":6
        "showchart":1
        "showtable":1
      }
      {
        "name":"Pages",
        "mode":"counter",
        "unit":"Custom",
        "customunit":"Pages",
        "value":99
      }
    ]
  }
]
```

Data definition object with sensor status error:

```
[
  {
    "sensorid":"2003",
    "error":"Response",
    "code":10,
    "message":"Error Message"
  }
]
```

Parameters for Data Definitions: Channel Result Values

The following table shows name/value pairs that can be used in the "channel" array objects of data definition objects:

Name	Mandatory	Description	Possible Value
Name	X	The name of the channel as displayed in user interfaces.	Any string
Value	X	Any number without quotation marks.	An integer, float, or counter value
Mode	—	The type of the value. i Make sure that it matches the provided value, otherwise PRTG shows 0 values.	Integer, float, or counter
Unit	—	The unit of the value. i If you set the correct unit type instead of using custom units, PRTG can display received values better.	BytesBandwidth BytesMemory BytesDisk BytesFile TimeResponse TimeSeconds TimeHours Temperature Percent Count CPU: This is a % unit that is accounted to the CPU load in index graphs. Custom (define the name of the unit using the additional field customunit)
ShowChart	—	Init value for the Show in graphs option. i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.	0 (= do not show graph) 1 (= show graph)

Name	Mandatory	Description	Possible Value
ShowTable	—	<p>Init value for the Show in tables option.</p> <p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	<p>0 (= do not show table)</p> <p>1 (= show table)</p>
SpeedSize VolumeSize	—	<p>Size used for the display value. For example, if you have a value of 50000 and use Kilo as size, the display is 50 kilo #. The default is One (value used as returned).</p> <p>i For the Bytes and Speed units, this is overridden by the setting in the user interface.</p>	<p>One</p> <p>Kilo</p> <p>Mega</p> <p>Giga</p> <p>Tera</p> <p>Byte</p> <p>KiloByte</p> <p>MegaByte</p> <p>GigaByte</p> <p>TeraByte</p> <p>Bit</p> <p>KiloBit</p> <p>MegaBit</p> <p>GigaBit</p> <p>TeraBit</p>
SpeedTime	—	<p>See above, used when displaying the speed. The default is Second.</p>	<p>Second</p> <p>Minute</p> <p>Hour</p> <p>Day</p>
decimalMode	—	<p>Init value for the Decimal Places option. If 0 is used in the float mode (use integer), the default is Automatic. Otherwise (for float), the default is All.</p>	<p>Automatic</p> <p>All</p> <p>Custom</p>

Name	Mandatory	Description	Possible Value
		<p>i You can change this initial setting later in the sensor's channel settings ³⁹⁷⁷.</p>	
decimalDigits	—	<p>If you define Custom as decimalMode, specify the number of digits after the delimiter.</p>	Integer
ValueLookup	—	<p>Define if you want to use a lookup file (for example, to view integer values as status texts). Enter the ID of the lookup file that you want to use, or omit this element to not use lookups.</p> <p>■ See section Define Lookups ⁴⁴⁸⁵ for more information.</p> <p>i This setting is only considered on the first sensor scan, when the channel is newly created. It is ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	Any string
LimitMaxError	—	<p>Define an upper error limit for the channel. If enabled, the sensor is set to the Down status if this value is exceeded and the LimitMode is activated.</p> <p>i Provide the value for the limit in the unit of the base data type as it is used in the <Value> element of this section. When a sensor shows the Down status triggered by a limit, it still receives data in its channels.</p> <p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	Integer

Name	Mandatory	Description	Possible Value
LimitMaxWarning	—	<p>Define an upper warning limit for the channel. If enabled, the sensor is set to the Warning status if this value is exceeded and the LimitMode is activated.</p> <p>i Provide the value for the limit in the unit of the base data type as it is used in the <Value> element of this section.</p> <p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	Integer
LimitMinWarning	—	<p>Define a lower warning limit for the channel. If enabled, the sensor is set to the Warning status if this value falls below the defined limit and the LimitMode is activated.</p> <p>i Provide the value for the limit in the unit of the base data type as it is used in the <Value> element of this section.</p> <p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	Integer
LimitMinError	—	<p>Define a lower error limit for the channel. If enabled, the sensor is set to the Down status if this value falls below the defined limit and the LimitMode is activated.</p>	Integer

Name	Mandatory	Description	Possible Value
LimitErrorMsg	—	<p>① Provide the value for the limit in the unit of the base data type as it is used in the <Value> element of this section.</p> <p>① The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	Any string
LimitWarningM sg	—	<p>① The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p> <p>Define an additional message. It is added to the sensor's message when entering the Down status that is triggered by a limit.</p> <p>① The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	Any string

Name	Mandatory	Description	Possible Value
LimitMode	—	<p>Define if the limit settings defined above are active. The default is 0 (no; limits inactive). If 0 is used, the limits are written to the channel settings as predefined values, but limits are disabled.</p> <p>i The values defined with this element are only considered during the first sensor scan when the channel is newly created. They are ignored on all further sensor scans (and may be omitted). You can change this initial setting later in the sensor's channel settings.</p>	<p>0 (= no)</p> <p>1 (= yes)</p>
Warning	—	<p>If enabled for at least one channel, the entire sensor is set to the Warning status. The default is 0 (no).</p>	<p>0 (= no)</p> <p>1 (= yes)</p>
Message	—	<p>Text the sensor returns in the Message field with every scanning interval. There can be one message per sensor, regardless of the number of channels. The default is OK.</p>	<p>Any string</p>
Error	—	<p>The type of error.</p> <p>i The type is not necessarily shown in PRTG.</p>	<p>Data: The monitored device returned a value but the sensor could not process it.</p> <p>Response: The monitored device reported an error. This includes timeouts, HTTP response codes, etc.</p> <p>Exception: Error in sensor handling.</p> <p>Socket: Socket error.</p>
Code	—	<p>The error code that is stored in the database.</p>	<p>Integer</p>

More

 KNOWLEDGE BASE

Part 14: Advanced Topics | 2 Application Programming Interface (API) Definition
8 Mini Probe API









How can I disable SSL for Mini Probes?

- <https://kb.paessler.com/en/topic/60356>

Where can I find PRTG Mini Probes which are ready to use?

- <https://kb.paessler.com/en/topic/61215>

Application Programming Interface (API) Definition

- [HTTP API](#)  4390
- [Live Data](#)  4393
- [Live Graphs](#)  4424
- [Historic Data](#)  4427
- [Object Manipulation](#)  4430
- [Custom Sensors](#)  4437
- [Custom Notifications](#)  4452
- [Mini Probe API](#)  4455

14.3 Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors

You can use filter rules for the Include Filter, Exclude Filter, and Channel Definition fields of [Packet Sniffer](#)⁴³⁰³, [xFlow](#), and [IPFIX](#)⁴³⁰⁵ sensors. The filter rules are based on the following format:

```
field[filter]
```

In this section:

- [All Sensors](#)⁴⁴⁷⁵
- [Packet Sniffer Sensors](#)⁴⁴⁷⁶
- [NetFlow v5 and jFlow v5 Sensors](#)⁴⁴⁷⁶
- [NetFlow v9 and IPFIX Sensors](#)⁴⁴⁷⁷
- [sFlow Sensors](#)⁴⁴⁷⁶
- [Valid Data Formats](#)⁴⁴⁷⁸
- [Examples](#)

Valid Fields for All Sensors

Field	Possible Filter Values
IP	IP address or Domain Name System (DNS) name ■ For more information, see section Valid Data Formats ⁴⁴⁷⁸ .
Port	Any number
SourceIP	IP address or Domain Name System (DNS) name
SourcePort	Any number
DestinationIP	IP address or Domain Name System (DNS) name
DestinationPort	Any number
Protocol	Transmission Control Protocol (TCP) , User Datagram Protocol (UDP) , Internet Control Message Protocol (ICMP) , Open Shortest Path First (OSPF) , any number
ToS	Type of Service (ToS) : any number
DSCP	Differentiated Services Code Point (DSCP) : any number

Additional Fields for Packet Sniffer Sensors Only

Field	Possible Filter Values
MAC	Physical address ■ For more information, see section Examples ⁴⁴⁷⁶ .
SourceMAC	Physical address
DestinationMAC	Physical address
EtherType	IPV4 , ARP , RARP , APPLE , AARP , IPV6 , IPXold , IPX , any number
VlanPCP	IEEE 802.1Q VLAN Priority Code Point
VlanID	IEEE 802.1Q VLAN Identifier
TrafficClass	IPv6 Traffic Class: corresponds to TOS used with IPv4
FlowLabel	IPv6 Flow Label

Additional Fields for NetFlow v5 and jFlow v5 Sensors Only

Field	Possible Filter Values
Interface	Any number
ASI	Any number
InboundInterface	Any number
OutboundInterface	Any number
SenderIP	IP address of the sending device. Use this if you have several devices that send flow data on the same port, and you want to divide the traffic of each device into a different channel. Possible values: IP address or DNS name ■ For more information, see section Valid Data Formats ⁴⁴⁷⁶ .
SourceASI	Any number



Field	Possible Filter Values
DestinationASI	Any number

Additional Fields for NetFlow v9 and IPFIX Sensors Only


Field	Possible Filter Values
Interface	Any number
ASI	Any number
InboundInterface	Any number
OutboundInterface	Any number
SenderIP	<p>IP address of the sending device. Use this if you have several devices that send flow data on the same port, and you want to divide the traffic of each device into a different channel.</p> <p>Possible values: IP address or DNS name</p> <p>■ For more information, see section Valid Data Formats <small>4478</small>.</p>
SourceASI	Any number
DestinationASI	Any number
MAC	Physical address
SourceMAC	Physical address
DestinationMAC	Physical address
Mask	Mask values represent subnet masks in the form of a single number (number of contiguous bits).
DestinationMask	Mask values represent subnet masks in the form of a single number (number of contiguous bits).
NextHop	IP address or Domain Name System (DNS) name
VLAN	VLAN values represent a VLAN identifier (any number)
SourceVLAN	VLAN values represent a VLAN identifier (any number)

Field	Possible Filter Values
DestinationVLAN	VLAN values represent a VLAN identifier (any number)

Additional Fields for sFlow Sensors Only

Field	Possible Filter Values
Interface	Any number
InboundInterface	Any number
OutboundInterface	Any number
SenderIP	<p>IP address of the sending device. Use this if you have several devices that send flow data on the same port, and you want to divide the traffic of each device into a different channel.</p> <p>Possible values: IP address or DNS name</p> <p> For more information, see section Valid Data Formats .</p>
MAC	Physical address
SourceMAC	Physical address
DestinationMAC	Physical address

Valid Data Formats

- IP fields support wildcards (*), range (10-20) and hostmask (/10, /255.255.0.0) syntax, as well as DNS names.
 -  IPv6 wildcards, IPv6 ranges, and IPv6 hostmasks are not supported.
- Number fields support range (80-88) syntax.
- Protocol and EtherType fields support numbers and a list of predefined constants.

 For detailed information on IP address ranges, see section [Define IP Address Ranges](#) .

Examples

All of the following filter rules are valid examples:

```
SourceIP[10.0.0.1]
SourceIP[10.*.*.*]
SourceIP[10.0.0.0/10]
DestinationIP[10.0.0.120-130]
DestinationPort[80-88]
Protocol[UDP]
MAC[00-60-50-X0-00-01]
DSCP[46]
```

You can create more complex expressions using parentheses () and the words and, or, or and not. For example, these are valid filter rules:

```
Protocol[TCP] and DestinationIP[10.0.0.1]
```

This rule filters for all TCP traffic with the destination IP 10.0.0.1.

```
Protocol[TCP] or DestinationIP[10.0.0.1]
```

This rule filters for all TCP traffic and all traffic with the destination IP 10.0.0.1.

```
Protocol[TCP] and (DestinationIP[10.0.0.1] or SourceIP[10.0.0.120-130])
```

This rule filters for all TCP traffic with either the destination IP 10.0.0.1 or the source IP range 10.0.0.120-130.

```
Protocol[TCP] and not (DestinationIP[10.0.0.1] or SourceIP[10.0.0.120-130])
```

This rule filters for all TCP traffic that does not have the destination IP 10.0.0.1 and the source IP range 10.0.0.120-130.











More

KNOWLEDGE BASE



How can I change the default groups and channels for xFlow and Packet Sniffer sensors?

- <https://kb.paessler.com/en/topic/60203>

Advanced Topics

- [Active Directory Integration](#)  4385
- [Application Programming Interface \(API\) Definition](#)  4389
- [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4475
- [Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4481
- [Define IP Address Ranges](#)  4483
- [Define Lookups](#)  4485
- [Regular Expressions](#)  4497
- [Calculating Percentiles](#)  4499
- [Add Remote Probe](#)  4501
- [Failover Cluster Configuration](#)  4513

Part 14: Advanced Topics | 3 Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors

- [Data Storage](#)  4526
- [PRTG Housekeeping](#)  4531
- [Using Your Own SSL Certificate](#)  4537

14.4 Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors

When adding [custom xFlow sensors](#), [custom IPFIX](#)⁴³⁰⁵, or [custom Packet Sniffer sensors](#)⁴³⁰³, you have the option to provide a Channel Definition using the following syntax (one entry per channel):

```
#<id> : <Name>
<Rule>
```

Syntax

- The <id> must be 1 or a higher number, and it must be unique for the sensor. This means that each channel definition must have a unique ID.
 - ❗ The maximum channel ID you can use is 2147483648 (2³¹). Higher IDs are not supported. We recommend that you use channel IDs like 1, 2, or 3.
- The <id> is linked to the historic data.
 - ❗ As soon as you change the ID, you lose the history for this particular channel that the ID was linked to.
- One rule can span multiple lines.
- The next rule starts with a # as the first character in a line.
- The <name> is the channel's display name.
- The rules are processed top to bottom (the number does not matter) and the data is accounted to the first match.
- PRTG automatically adds one channel named Other. This channel counts all traffic for which you have not defined a specific channel.
- After the name, you can use an optional [<unit>] to override the automatic unit, which is based on the source sensors.

The <Rule> syntax is identical to the one described in the [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#)⁴⁴⁷⁵ section. Because data is accounted to the first match, make sure that you start with the most specific rule at the top and get less specific to the bottom.

- ❗ We recommend that you write the rules list in an external editor first and then paste it into the Channel Definition field of the sensor in PRTG. If the rules contain an error, the entries are removed after adding them.
- ❗ You cannot delete channels of a sensor, even if you remove a channel from the channel definition. You also cannot change the display name of channels using the channel definition of custom xFlow sensors. Renaming is only possible via [channel settings](#)³⁹⁷⁷.

Example

General example:

```
#5:HTTP
Protocol[TCP] and
(SourcePort[80] or DestinationPort[80] or SourcePort[8080] or
DestinationPort[8080])
```

Channel definition example for differentiating by protocol:

```
#1:TCP
Protocol[TCP]

#2:UDP
Protocol[UDP]

#3:ICMP
Protocol[ICMP]
```














More

KNOWLEDGE BASE

How can I change the default groups and channels for xFlow and Packet Sniffer sensors?

- <https://kb.paessler.com/en/topic/60203>

Advanced Topics

- [Active Directory Integration](#)  4385
- [Application Programming Interface \(API\) Definition](#)  4389
- [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4475
- [Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4481
- [Define IP Address Ranges](#)  4483
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- [Calculating Percentiles](#)  4499
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- [Failover Cluster Configuration](#)  4513
- [Data Storage](#)  4526
- [PRTG Housekeeping](#)  4531
- [Using Your Own SSL Certificate](#)  4537

14.5 Define IP Address Ranges

In some setting fields, you can either enter a host name or single IP address, or you can define IP address ranges. These are available, for example, for [xFlow and Packet Sniffer sensors](#)^[4600] and for [probe connection settings](#)^[4204]. PRTG follows a common syntax for IP address ranges.

■ For the supported syntax of the automatic network discovery functionality in PRTG, see section [Auto-Discovery](#)^[296] (IP Address Selection Method).

Available Options

Option	Description	Syntax	Examples
Simple	Enter a fixed IP address.	a.b.c.d	10.0.10.9
Hostname	Enter a hostname. PRTG resolves it to an IP address in your network.	hostname	device-xyz
Hostmask	Enter a hostmask. A hostmask defines the relevant bits of the IP address. ❗ Valid hostmasks are /0 - /32 for IPv4 and /0 - /128 for IPv6.	a.b.c.d/h or a.b.c.d/e.f.g.h	10.0.0.0/24
Range	Enter an IP address range. Replace each of a, b, c, d with either <ul style="list-style-type: none"> ▪ * (asterisk) for any value; corresponds to 0-255 or ▪ x-y for any range between 0 and 255. 	a.b.c.d	10.0.0.1-20 or 10.*.0.* or 10.0.0-50.*

Advanced Topics

- [Active Directory Integration](#)^[4385]
- [Application Programming Interface \(API\) Definition](#)^[4389]
- [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#)^[4475]
- [Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors](#)^[4481]
- [Define IP Address Ranges](#)^[4483]
- [Define Lookups](#)^[4485]
- [Regular Expressions](#)^[4497]
- [Calculating Percentiles](#)^[4499]
- [Add Remote Probe](#)^[4501]
- [Failover Cluster Configuration](#)^[4513]

Part 14: Advanced Topics | 5 Define IP Address Ranges

- [Data Storage](#)  4526
- [PRTG Housekeeping](#)  4531
- [Using Your Own SSL Certificate](#)  4537

14.6 Define Lookups

PRTG uses lookups for some sensors and for some sensors with custom channels. In general, lookups map status values as returned by a device (usually integers) to more informative expressions in words. Additionally, lookups can define a shown [sensor status](#)^[197] based on the status value returned by a device, just like [channel limits](#)^[397b] can define a sensor status, too. For a printer that returns the status value "1", for example, PRTG can show a sensor in the yellow Warning status with the text message "Toner Low" instead of only displaying the status value "1".

You can customize lookups by defining your own text messages that a channel shows and mapping them to a certain sensor status. See section [Customizing Lookups](#)^[4491].

If a sensor's channels use lookups, you can individually define how to control the sensor's status, either using the lookup definition or using limits for numeric values returned by the device. For details, see section [Channel Settings](#)^[397b], section Alerting and Limits. It is not possible to use both definitions at the same time.

- i Lookups do not change data in the PRTG database, they merely change the way channels are shown. Any change to lookup definition files applies to historic data as well as to live data.
- i Some exceptions apply to the [SNMP Custom String Lookup sensor](#)^[2485] that basically does an inverse lookup. It does not map an integer to a text message but only looks for matching strings in the lookup definition and shows a status based on this text value.

☁ To upload customized lookups to PRTG Hosted Monitor, [contact the Paessler support team](#)^[4266].







In this section:

- [Requirement: Channel Unit "Custom"](#)^[4485]
- [Visualization of Lookup Channels](#)^[4486]
- [Lookups Directory and Format](#)^[4488]
- [The XML Schema](#)^[4489]
- [Customizing Lookups](#)^[4491]
- [desiredValue Attribute](#)^[4493]
- [Lookup Types: SingleInt, Boolean, BitField, Range](#)^[4493]
- [Define Lookup Files in Channel Settings](#)^[4494]
- [Loading Lookups](#)^[4494]
- [Debugging](#)

Requirement: Channel Unit "Custom"

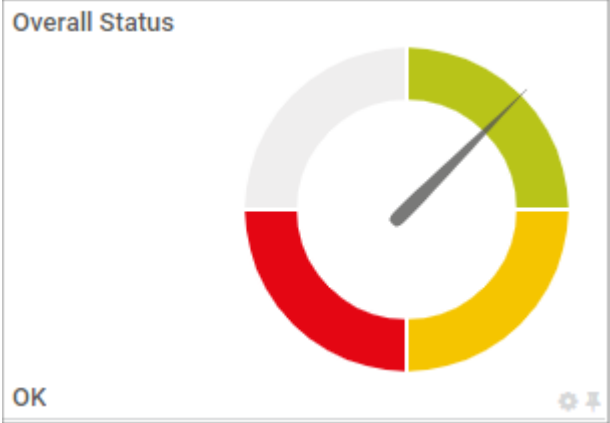

All channels with an enabled Lookup need to use the Channel Unit "Custom". For details, see section [Channel Settings](#)^[397b].

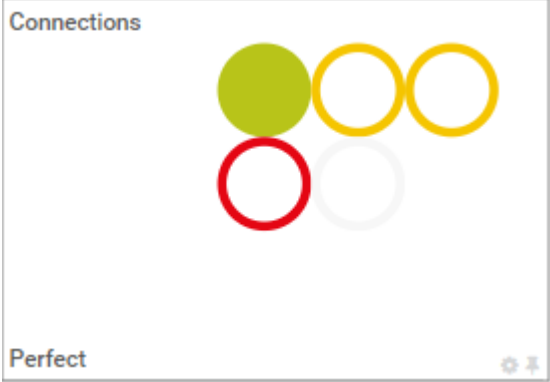
- i There are sensors that provide the Channel Unit "Lookup" in their settings. Do **not** use the Channel Unit "Custom" for channels of these sensors if you want to use lookups. This would result in malfunctioning lookup definitions. For the following sensors, select the Channel Unit "Lookup" in the settings and select your lookup file directly under Channel Lookup during sensor creation:

- [Google Analytics sensor](#)  1153
- [Microsoft SQL v2 sensor](#)  1607
- [MySQL v2 sensor](#)  1674
- [Oracle SQL v2 sensor](#)  1923
- [PostgreSQL sensor](#)  2064
- [SNMP Custom Advanced sensor](#)  2464
- [SNMP Custom Table sensor](#)

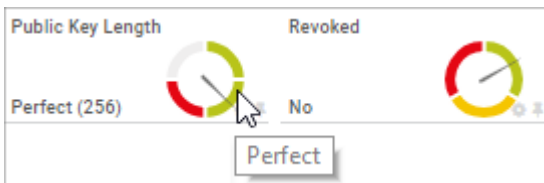
Visualization of Lookup Channels

PRTG can display channels that use lookups as follows.

Lookup Type	Visualization	Example
SingleInt, Range	Gauge	 <p>A Gauge Showing the Status of a Lookup Channel</p>
Boolean	Switch	 <p>A Switch Showing the Status of a Boolean Lookup Channel</p>

Lookup Type	Visualization	Example
BitField	Toggles	 <p>Connections</p> <p>Perfect</p> <p>Toggles Show ing the Status of a BitField Lookup Channel</p>

You can view the text messages for the different lookup values by hovering over the respective color section.



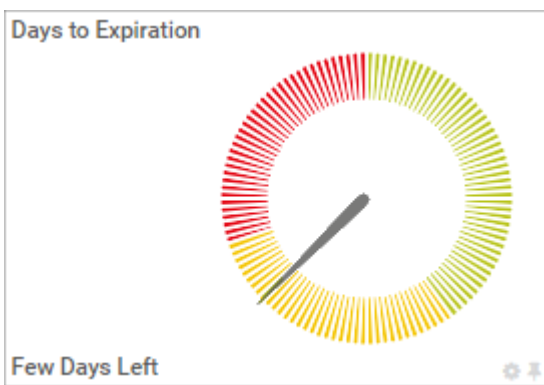
Gauge Show ing the Respective Lookup Message w hen Hovering over a Color Section

To see which lookup value in which channel shows the Warning or Down status, check the sensor message on a sensor's Overview tab:



Sensor Message in the Overview Tab

i We recommend that you stay below 120 lookup values to display visually informative gauges for primary channels. Non-primary channels have an upper limit of around 40 lookup values for gauges.



Gauge Show ing 120 Lookup Values

i The various sensor states that are displayed in gauges always follow the clockwise order Up (green) < Warning (yellow) < Down (red) < Unknown (gray). This clockwise order by colors stays the same, no matter which numeric value is mapped to which sensor status in the lookup definition. See the following example:

```
<?xml version="1.0" encoding="UTF-8"?>
  <ValueLookup id="example.lookups" desiredValue="1" undefinedState="olsWarning"
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
    xsi:noNamespaceSchemaLocation="PaeValueLookup.xsd">
    <Lookups>
      <SingleInt state="Ok" value="1">
        Works
      </SingleInt>
      <SingleInt state="Ok" value="2">
        Works a bit
      </SingleInt>
      <SingleInt state="Warning" value="4">
        Is slow
      </SingleInt>
      <SingleInt state="Error" value="8">
        Does not work
      </SingleInt>
      <SingleInt state="Ok" value="16">
        Works sometimes
      </SingleInt>
    </Lookups>
  </ValueLookup>
```

Even though the value "8" comes before the value "16", the state "OK" (shown as the Up status) is displayed before the state "Error" (shown as the Down status).

See [Lookups Directory and Format](#)⁴⁴⁸⁸ and [The XML Schema](#)⁴⁴⁸⁹ for more information about the lookup code and format.

Lookups Directory and Format

Lookups are defined in Extensible Markup Language (XML) format in files ending with .ovl. PRTG standard lookup files are located in the lookups subfolder of the [PRTG program directory](#)⁴⁵²⁶. These files are maintained by PRTG itself. In each of the files, lookups for one or more sensors are defined. Furthermore, the lookups subfolder contains the \custom subfolder to store your customized lookups.

For a list of all standard lookup files, see section [List of Standard Lookup Files](#)⁴⁷²⁴.

The files follow a basic principle. For each numeric value, you can define:

- A message that the sensor looks up and shows instead of the numeric value itself.
- The status that the sensor shows.

Use the [SNMP Custom String Lookup sensor](#)²⁴⁸⁹ to map a string to a corresponding status. For this purpose, use the [lookup type](#)⁴⁴⁹³ SingleInt.

You cannot access this directory on PRTG Hosted Monitor instances.

The XML Schema

An exemplary schema of the .xml files containing the lookup definitions can look like this:

```
<?xml version="1.0" encoding="UTF-8"?>
<ValueLookup id="..." desiredValue="..." undefinedState="..." xmlns="..." xsi="...">
  <Lookups>
    <SingleInt state="..." value="...">status text</SingleInt>
    <SingleInt state="..." value="...">status text</SingleInt>
    <SingleInt state="..." value="...">status text</SingleInt>
  </Lookups>
</ValueLookup>
```

Element	Description	Attributes, Value Assignment, and Content
<code><?xml></code> content	This is the XML declaration that every .xml file begins with.	<ul style="list-style-type: none"> version and encoding are "1.0" and "UTF-8" respectively content: <code><ValueLookup>contentValueLookup</ValueLookup></code>
<code><ValueLookup></code> <code>contentValueLookup</code> <code></ValueLookup></code>	Defines the ID of the channel, which desiredValue is used, the status for undefined values (undefinedState), and links to the predefined schema definitions in PRTG that allow editing of lookup files with supported editors.	<ul style="list-style-type: none"> id: Specifies how the name of the lookup file is shown in the channel settings³⁹⁷⁷. <ul style="list-style-type: none"> i The id is parsed as a lowercase string. desiredValue⁴⁴⁹³: Contains the value used for the calculation of the "Coverage". undefinedState: Optionally define a status for values that are not defined in the lookup file. If the target device returns a value that is not included in the lookup definition, the sensor shows this status (Ok, Warning, Error, or None) with an according message. Without a definition of "undefinedState", the sensor only shows the returned value.

Element	Description	Attributes, Value Assignment, and Content
<code><Lookups> contentLookups </Lookups></code>	Defines the particular lookups for the sensor data.	<ul style="list-style-type: none"> ▪ xmlns:xsi/xsi: Refers to predefined XML schema definitions in PRTG (which allow editing of lookup files with supported editors). ▪ <code>contentValueLookup</code>: Lookup definitions <code><Lookups>contentLookups</Lookups></code> • <code>contentLookups</code>: One or more lookup entries, see below.
<code><SingleInt> status text </SingleInt></code>	Each element defines one lookup entry. There can be one or more lookup entries from the same lookup type ⁴⁴⁹³ .	<ul style="list-style-type: none"> ▪ <code>state</code>: Defines the status the sensor shows. Allowed values are Ok, Warning, Error, and None ("None" does not trigger a status change).
<code><Boolean> status text </Boolean></code>	<p>i You can use only one kind of lookup type in one lookup file. This means, only <code>SingleInt</code>, only <code>Boolean</code>, only <code>BitField</code>, or only <code>Range</code>. Different lookup types in one file are not allowed.</p>	<p>i State values must be capitalized for the sensor to work properly.</p>
<code><BitField> status text </BitField></code>	The notation for the different lookup types can vary:	<ul style="list-style-type: none"> ▪ <code>value</code>: Defines the value that triggers the lookup. Enter an integer value. i Range always needs both values "from" and "to".
<code><Range> status text </Range></code>	<ul style="list-style-type: none"> ▪ <code><SingleInt state="..." value="...">status text</SingleInt></code> ▪ <code><Boolean state="..." value="...">status text</Boolean></code> ▪ <code><BitField state="..." value="...">status text</BitField></code> ▪ <code><Range state="..." from="..." to="...">status text</Range></code> 	<ul style="list-style-type: none"> ▪ <code>status text</code>: Defines a status text that is used as substitution text and shown instead of the integer value, for example, a status message. i The SNMP Custom String Lookup sensor maps the status text to one of the specified states. For this sensor, use <code>SingleInt</code>.

Because all .xml files containing lookup definitions are delivered in a previously specified schema as indicated above, you can [customize lookups](#)⁴⁴⁹¹ accordingly.

Example

The following code illustrates the lookup definition for the toner status of the [SNMP HP LaserJet Hardware](#) sensor:

```
<?xml version="1.0" encoding="UTF-8"?>
<ValueLookup id="oid.paessler.hp.laserjet.tonerstatus" desiredValue="1"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="PaeValueLookup.xsd">
  <Lookups>
    <SingleInt state="Ok" value="0">Toner Okay</SingleInt>
    <SingleInt state="Warning" value="1">Toner Low</SingleInt>
    <SingleInt state="Error" value="2">No Toner Cartridge Loaded</SingleInt>
  </Lookups>
</ValueLookup>
```

In our example, the lookup file has the following effect:

Value as Reported from HP Printer	Text Shown in PRTG (Channel)	Sensor Status Shown in PRTG	
0	Toner Okay		Up
1	Toner Low		Warning
2	No Toner Cartridge Loaded		Down

Customizing Lookups

To upload customized lookups to PRTG Hosted Monitor, [contact the Paessler support team](#).

If you want to change the status definitions of a specific channel, you basically have to do the following:

1. Find out the (file) name of the default lookup file in the settings of the channel that you want to change the behavior for.
 2. From the \lookups subfolder of the [PRTG program directory](#), copy this file into the \lookups\custom subfolder. Make sure that you do not change the file name.
OR
create a new .xml file there.
- i** When using the same ID in the [ValueLookup](#) tag, the files in the \lookups\custom subfolder have a higher priority than the original files in the \lookups folder. This way, PRTG prefers your customizations to the original lookup settings. If you want to use custom lookup definitions [in addition](#) to the standard lookups, define a new ID in the lookup file that is not used by any other lookup file. PRTG identifies lookup definitions via this ID, it does **not** use the file name.

3. Open the file with an XML or text editor and customize the lookups as you like. You can define your own text messages or customize sensor states for particular return values. For example, if you do not want a sensor to show the Down status for the return value 2 but only the Warning status, replace the state "Error" with "Warning".

i All possible states are specified in the LookupState.xsd file in the custom directory. Following the schema of the .xml files that are delivered with PRTG ensures that you edit lookups in a safe way.

i If you [imported an .oidlib file](#)²⁸⁰⁷ that contains lookups (you can see this in section Lookup in MIB Importer), you can define your own sensor states for returning values. If you add an [SNMP Library sensor](#)²⁷⁹⁷ using this .oidlib file, PRTG creates a lookup definition file using the lookupname of the chosen library as id parameter. Override this lookup definition with your own custom lookup as described in this section. This is important because lookups that are added via an .oidlib file do not contain any status definitions and result in the Warning status of the sensor by default because of the entry `undefinedState="Warning"`.

i If you use an SNMP Custom String Lookup sensor, you can create a new custom lookup definition in the \lookups\custom subfolder with the expected return values. In this case, use the lookupname of the chosen library as id parameter to override the lookups from the .oidlib file.

i When you save an edited lookup, make sure that it is saved as an .ovl file. Otherwise, the lookup might accidentally be saved as a .txt file and might not be loaded.

Example for Lookups Customization

For example (for illustration purposes only), imagine you want

- the sensor to show the Warning status for all undefined values that the target device might return,
- to change the shown status for the return value "2" from the Down to the Warning status, and
- to add the state "None" (shown as the grey Unknown status) to the [example](#)⁴⁴⁸¹ above.

Then take the following steps:

1. Copy the file oid.paessler.hp Laserjet.tonerstatus to the \lookups\custom subfolder of the PRTG program directory.
2. Open this file with an editor.
3. Leave the ID value unchanged to prioritize the customized lookup file.
4. Insert the status definition for undefined values into the ValueLookup element:
`undefinedState="Warning"`
5. Replace the state "Error" with "Warning" for value "2".
6. Add a SingleInt element with the state "None" for the (hypothetical) return value "3".
7. Save the file and [reload](#)⁴⁴⁹⁴ the custom lookup folder in PRTG.

The customized lookup file looks like this:

```
<?xml version="1.0" encoding="UTF-8"?>
<ValueLookup id="oid.paessler.hp.laserjet.tonerstatus" desiredValue="1"
undefinedState="Warning" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:noNamespaceSchemaLocation="PaeValueLookup.xsd">
  <Lookups>
    <SingleInt state="Ok" value="0">Toner Okay</SingleInt>
    <SingleInt state="Warning" value="1">Toner Low</SingleInt>
    <SingleInt state="Warning" value="2">No Toner Cartridge
Loaded</SingleInt>
    <SingleInt state="None" value="3">Unknown Status of Toner</SingleInt>
  </Lookups>
</ValueLookup>
```

■ See also the [SNMP Custom String Lookup sensor](#)²⁴⁹⁸ for a lookup definition that maps a string value to a sensor status.

desiredValue Attribute

It is necessary to define a desiredValue in the lookup files. The desiredValue corresponds to a [status value](#) that triggers a lookup. PRTG calculates the percentage of time this specific status was monitored. The result is displayed for all data tables and graphs that show averaged values.

Considering the example above where the desiredValue is "1", PRTG calculates the percentage of time the toner status showed the Warning status. If during a time span of five minutes, four of five sensor scans returned "Warning", PRTG would show an average of 80% for this time span because 80% of the time, the sensor showed the Warning status.

i The desiredValue attribute always has to be an integer value. For the lookup type range, use an integer that you defined for one of your "from" or "to" parameters in the lookup file.

■ For more information, see also the Knowledge Base: [Can I graph text values?](#)

Lookup Types: SingleInt, Boolean, BitField, Range

Besides the lookup type SingleInt as seen above, there are three other lookup types: Boolean, BitField, and Range. Using these types, you can define lookup values beyond simple integers.

Lookup Type	Description	Syntax
SingleInt	Use an integer to define a lookup for one status value.	value="int" i The full 32-bit integer range is supported.
Boolean	Use 0 or 1 to define a lookup for two different status values.	value="0" value="1"

Lookup Type	Description	Syntax
BitField	Use a bitfield for multiple status values.	<p>Only use this lookup type if you have some basic knowledge about bitmasks. See section More ⁴⁴⁹⁵ for a general introduction.</p> <ul style="list-style-type: none"> i Every value has to equal a power of two (for example, 1, 2, 4, 8, 16, 32, 64, etc.). i The SNMP Custom String Lookup sensor does not support BitFields.
Range	Uses an inter range from-to to define a lookup for several status values.	<p>from="int" to="int"</p> <ul style="list-style-type: none"> i Using ranges, the parameters "from" and "to" always have to be defined. If you want to query only one single value in a range file, this value must be set as a parameter for "from" and "to" (for example, from="2" to="2"). See also the Knowledge Base: Custom lookup range. i The SNMP Custom String Lookup sensor does not support ranges. i The full 32-bit integer range is supported.

i You can use only one kind of lookup type in one lookup file. This means, only [SingleInt](#), only [Boolean](#), only [BitField](#), or only [Range](#). Different lookup types in one file are not allowed.

Define Lookup Files in Channel Settings


For each sensor with a custom channel, you can define a lookup file to use with the option Lookup in the channel settings. This option is visible for many SNMP sensors, some application sensors, and always for the following sensors:

- [EXE/Script sensor](#) ¹⁰⁶³
- [EXE/Script Advanced sensor](#) ¹⁰⁷⁷ (if a Custom unit is defined)
- [SNMP Custom sensor](#)

■ For details, see section [Channel Settings](#) ³⁹⁷⁷.

Loading Lookups

You can (re)load the lookups in the custom folder by going to Setup | System Administration | [Administrative Tools](#) ⁴²²⁵ in the PRTG web interface and clicking Go! under Load Lookups and File Lists.

 A sensor whose lookup file you have modified and reloaded does not re-evaluate this lookup before the next sensor scan. For sensors with large scanning intervals, use the Scan Now option from the [context menu](#)²⁷⁰ to immediately apply the new lookup definition and to avoid an incorrect sensor status.

Debugging

What happens if...?

- a return value is defined in the lookups that is never returned by a device because the value is not assigned: The value is never triggered, so PRTG ignores this entry.
- PRTG receives a return value that is not defined for lookups: No substitution message can be found. PRTG only shows the return value. You can optionally define a status for unknown values with a definition of undefinedState in the ValueLookup element (see section [The XML Schema](#)⁴⁴⁸⁹).
- different lookup types are in one lookup file: This is not allowed and PRTG discards this lookup definition. If you use miscellaneous lookup types in one file, for example, ranges and singleInts together, PRTG creates a ticket when loading lookups or restarting the PRTG core server with the following error message: `Lookup file "[...]" could not be loaded (" is not a valid integer value)".`
- XML code is incorrect: PRTG creates a new ticket when loading lookups or restarting the PRTG core server with a corresponding error message and discards this lookup definition.
- a lookup file has a file ending other than `.ovl`: The file is not loaded.
- alerting is disabled or based on limits: "Error" and "Warning" states defined in the lookup do not apply. Make sure that you select the option Enable alerting based on lookups in the channel settings if you want to use lookup definitions to control the sensor status.
- you define a scaling factor in channel settings: This does not modify the values that are defined by lookups. Any applied lookup always uses the raw value as retrieved from the target device. If you use a scaling factor for such a channel, you notice the scaling in data graphs, but the channel value appears unmodified in data tables.

More

KNOWLEDGE BASE

Custom lookup range

- <https://kb.paessler.com/en/topic/55493>

Can I graph text values?

- <https://kb.paessler.com/en/topic/73062>

VIDEO TUTORIAL

How to configure lookups in PRTG














- <https://www.paessler.com/learn/videos/prtg-lookups>

PAESSLER TOOLS

MIB Importer

- <https://www.paessler.com/tools/mibimporter>

Advanced Topics

- [Active Directory Integration](#)  4385
- [Application Programming Interface \(API\) Definition](#)  4389
- [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4475
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14.7 Regular Expressions

For some sensors, you can use regular expressions to match a search pattern. PRTG supports Perl Compatible Regular Expression (PCRE).

The following sensors support using regular expressions:

- [DHCP sensor](#) ⁸⁷³
- [File Content sensor](#) ¹¹⁰⁴
- [HTTP Advanced sensor](#) ¹²⁰⁴
- [IMAP sensor](#) ¹⁴³⁰
- [Port sensor](#) ²⁰⁴¹
- [SNMP Custom String sensor](#) ²⁴⁷⁵
- [WMI Custom String sensor](#)

i You can only use regular expressions for the respective sensors if you explicitly enable using regular expressions in the sensors' settings.

i PRTG supports regular expression (regex) options in the form (?ismxUU) and their negations like, for example, (?-i). PRTG does not support regex flags like, for example, /g (global), /s (single line), or /gs, and does not correctly search for the target string if you try to set flags.

See below for examples with the most [common patterns](#) ⁴⁴⁹⁷ and an [example](#) ⁴⁴⁹⁷ for possible matches.

Common Search Patterns

Find matches containing the word error **or** alarm:

```
\b(error|alarm)\b
```

Find matches containing the word ERROR, **not** error, using case sensitivity:

```
(?-i)\bERROR\b
```

Find matches containing the words error **and** alarm, in any order:

```
(?=.*\berror\b)(?=.*\balarm\b).*
```

Find matches containing all of the words tree, flower, leaf, **and** bug, in any order:

```
(?=.*\btree\b)(?=.*\bflower\b)(?=.*\bleaf\b)(?=.*\bbug\b).*
```

i It is not possible to match an empty string using the PRTG regex search with sensors.

Example














The search pattern

```
(?i)(?=.*\berror\b)(?=.*\balarm\b).*
```

matches the following expressions:

- Alarm error
- Error alarm
- I am an error and I trigger an alarm.
- I am an alarm and I indicate an error.
- An alarm combined with an error indeed!
- An error combined with an alarm, too!

Advanced Topics

- [Active Directory Integration](#)  4385
- [Application Programming Interface \(API\) Definition](#)  4389
- [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4475
- [Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4481
- [Define IP Address Ranges](#)  4483
- [Define Lookups](#)  4485
- [Regular Expressions](#)  4497
- [Calculating Percentiles](#)  4499
- [Add Remote Probe](#)  4501
- [Failover Cluster Configuration](#)  4513
- [Data Storage](#)  4525
- [PRTG Housekeeping](#)  4531
- [Using Your Own SSL Certificate](#)  4537

14.8 Calculating Percentiles

PRTG not only monitors your network and informs you in case of issues that are worth a closer look, it also stores a lot of historic data gathered from your sensors. This means that you have a base for statistical analysis and evaluation of what is and was happening in your network.

When creating a report, you get raw data, sums, averages, and percentages of your monitoring data.

Additionally, PRTG also offers percentile calculation. This statistical method arranges your data, for example, from the lowest value to the highest value, and calculates the percentile that you want, optimally informing you about the distribution of your network-relevant data.

i For example, if you request the 95th percentile, you know that 95 percent of the measured data is below a certain value, and thanks to PRTG, you know what this certain value is.

If applied to bandwidth, for example, you know which values you have when talking about the 5 percent of unusually high bandwidth consumption, and which value your users do not exceed 95 percent of the time. Service providers often use percentiles to offer fairer billing that excludes infrequent usage peaks.

■ If you want to know more about the formula that PRTG uses for percentile calculation, see the Knowledge Base: [What are percentiles and what differences do they make in PRTG reports?](#)

Create a report for several sensors and device groups using the [reports](#)⁴⁰⁶⁹ feature, or create reports for single sensors using the [historic data reports](#)²⁰⁸¹.

More

■ KNOWLEDGE BASE

What are percentiles and what differences do they make in PRTG reports?

- <https://kb.paessler.com/en/topic/9563>

Advanced Topics

- [Active Directory Integration](#)⁴³⁸⁵
- [Application Programming Interface \(API\) Definition](#)⁴³⁸⁹
- [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#)⁴⁴⁷⁵
- [Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors](#)⁴⁴⁸¹
- [Define IP Address Ranges](#)⁴⁴⁸³
- [Define Lookups](#)⁴⁴⁸⁵
- [Regular Expressions](#)⁴⁴⁹⁷
- [Calculating Percentiles](#)⁴⁴⁹⁹
- [Add Remote Probe](#)⁴⁵⁰¹
- [Failover Cluster Configuration](#)⁴⁵¹³
- [Data Storage](#)⁴⁵²⁵
- [PRTG Housekeeping](#)⁴⁵³¹

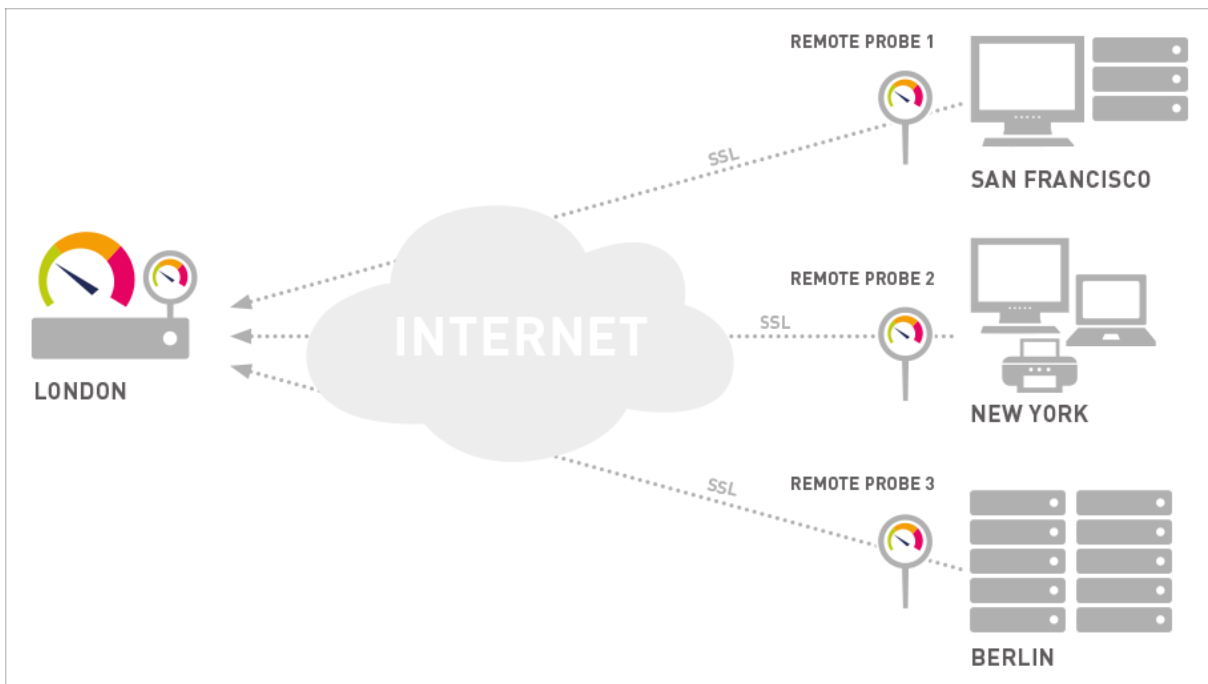
Part 14: Advanced Topics | 8 Calculating Percentiles

- [Using Your Own SSL Certificate](#)  4537

14.9 Add Remote Probe

Remote probes can extend your monitoring with PRTG.

- With remote probes, you can monitor different subnetworks that are separated from your PRTG on premises core server by a firewall, and you can keep an eye on remote locations. You can install [one or more remote probes](#)^[4503].
- Remote probes are useful if you want to distribute monitoring load by taking it from the PRTG core server system and putting it on one or more remote probe systems.
- You need a remote probe if you want to monitor your local network using a PRTG Hosted Monitor instance.



Monitoring Remote Locations via Remote Probes

For instructions on how to add a remote probe, see the following sections:

- Background information: [Remote Probes and Multiple Probes](#)^[4503]
- Step-by-step installation: [Install a Remote Probe](#)^[112]
- Partially automatic installation: [Remote Probe Setup via Device Tools](#)^[4507]
- Quick installation guide on the Paessler website: [How to install a PRTG remote probe in 4 steps](#)

More

■ PAESSLER WEBSITE

How to install a PRTG remote probe in 4 steps

- <https://www.paessler.com/support/how-to/remote-probe-installation>

How to connect PRTG through a firewall in 4 steps














- <https://www.paessler.com/support/how-to/firewall>

 VIDEO TUTORIAL

Distributed monitoring with PRTG

- https://www.paessler.com/learn/videos/distributed_monitoring

Advanced Topics

- [Active Directory Integration](#)  4385
- [Application Programming Interface \(API\) Definition](#)  4389
- [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4475
- [Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4481
- [Define IP Address Ranges](#)  4483
- [Define Lookups](#)  4485
- [Regular Expressions](#)  4497
- [Calculating Percentiles](#)  4499
- [Add Remote Probe](#)  4501
- [Failover Cluster Configuration](#)  4513
- [Data Storage](#)  4526
- [PRTG Housekeeping](#)  4531
- [Using Your Own SSL Certificate](#)  4537

14.9.1 Remote Probes and Multiple Probes

Upon installation, PRTG automatically creates the first probe, the local probe in PRTG on premises, and the hosted probe in PRTG Hosted Monitor. They run on the PRTG core server system and monitor all reachable devices, servers, and services from this system, using the sensors you configured.

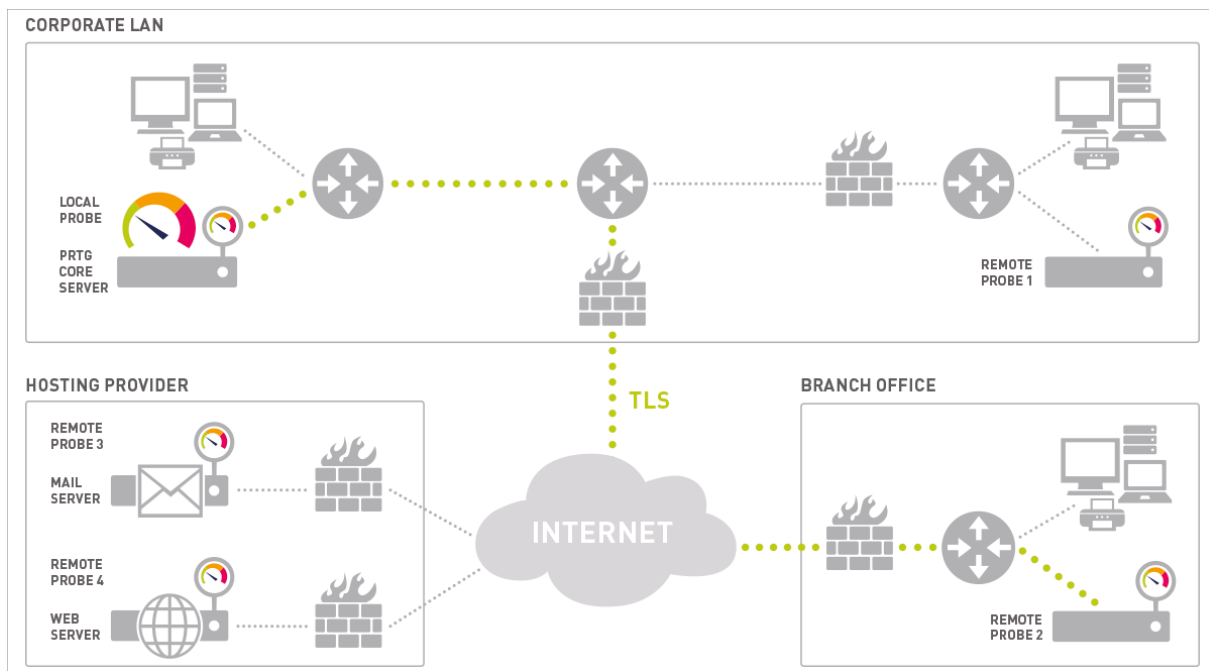
Working only with a local probe should suffice for LAN monitoring with PRTG on premises and if you want to monitor one location only. For LAN monitoring with PRTG Hosted Monitor, at least one remote probe is required because the hosted probe can only reach targets that are publicly available via the internet.

Scenarios Requiring Remote Probes

There are several situations that make it necessary to work with remote probes in the same LAN or in remote locations. Among these situations are the following:

- You run a PRTG Hosted Monitor instance and want to monitor your local network.
- You have more than one location and you need to make sure that services are available from all locations.
- Your network is divided into several LANs by firewalls, and the local probe cannot monitor specific services across these firewalls.
- You want to monitor systems in a secure network and you need a secure connection between the PRTG core server and this network.
- You want to sniff packets on a different computer.
- You want to monitor NetFlow data on a different computer.
- You experience performance issues with CPU-intensive sensors like Packet Sniffer or NetFlow sensors and need to distribute the load among more than one PC.

The following chart shows an example for a remote probe scenario.



Monitoring a Distributed Network with PRTG

The PRTG core server inside the **corporate LAN** (top left) can monitor:

- Services inside the **corporate LAN** using the local probe.
- Services behind a firewall in the **corporate LAN** using remote probe 1.
- Secured services inside the **branch office** (bottom right) using remote probe 2.
- Secured services on **mail server** and **web server** using remote probe 3 and remote probe 4 installed directly on these servers.
- Public services on the internet using any of the probes.

How Probes Work

As soon as a probe starts, it automatically connects to the **PRTG core server**^[131], downloads the sensor configuration, and begins its monitoring tasks. The PRTG core server sends new configuration data to a probe as soon as the user changes the monitoring configuration. Probes monitor autonomously and send the monitoring results back to the PRTG core server for each check they have performed.

If the connections between the PRTG core server and a probe fail for any reason (for example, restarting the PRTG core server system), the probe continues to monitor and stores the results. During a connection loss, a buffer stores a maximum of 500,000 sensor results in the RAM of the remote probe system (up to 50 - 200 MB). This means that for 100 sensors with a 1-minute scanning interval, the monitoring results of up to 3 days can be buffered (or 52 minutes for 10,000 sensors with a 1-minute scanning interval). The probe automatically reconnects to the PRTG core server as soon as it is available again and transmits all monitoring results gathered during the connection loss.

The connection between a probe and the PRTG core server is initiated by the probe and is Secure Sockets Layer (SSL)/Transport Layer Security (TLS) secured. This means that the data sent back and forth between the PRTG core server and the probe is not visible to someone capturing data packets. The PRTG core server provides an open TCP/IP port and waits for connection attempts from probes. If a new probe connects for the first time, you receive a **ToDo ticket**^[240] and then see the new probe in the device tree.

As a security precaution, you must manually approve the probe in the device tree before you can create any sensors. You can also deny a probe. It is then disconnected. PRTG accepts no further connection attempts and it adds the probe IP address to the Deny IP Addresses list in the probe's system settings (see section [Core & Probes](#)^[4202]). This ensures that unauthorized probes cannot connect to a PRTG core server.


Because the probe initiates the connection, you must ensure that a connection to your PRTG core server from the outside can be established. For example, you might need to open any necessary ports in your firewall and you might need to specify a network address translation (NAT) rule for your network. The process is the same as if you wanted to allow access to the web server provided by the PRTG core server via port 443, for example. Make sure that you have the Transmission Control Protocol (TCP) port [23560](#) open or forwarded on both your PRTG core server side and probe side.

If you run PRTG in a cluster, remote probes also connect to all cluster nodes and send monitoring data. This works as described above for a single PRTG core server. If the master node fails, you can still see monitoring data on the failover nodes. You can define the Cluster Connectivity of each probe in the probe's [settings](#)^[409], section Administrative Probe Settings.

Automatic Probe Update

Whenever you install a new version of PRTG on the PRTG core server, all remote probes automatically download and install the updated version as soon as they reconnect to the updated PRTG core server.

The local probe is updated when you update the PRTG core server. All remote probes automatically download the new binaries using the SSL/TLS-secured probe connection or PRTG core server connection. Downloading the 4-MB file takes anywhere from a few seconds (in LANs) up to a few minutes (via internet connections), depending on the available bandwidth. As soon as the update has been downloaded, the remote probe disconnects, installs the update, and reconnects to the PRTG core server. This takes between 20 and 100 seconds. Note that during the update phase, monitoring by the local probe can be affected because of the bandwidth required for the downloads.

 If a remote probe keeps being disconnected after an update, check if the server with the remote probe has two network connections with different IP addresses. Make sure these addresses are in the list of allowed IPs in the [Core & Probes](#)^[4204] settings.

Delete Remote Probe

Deleting a connected remote probe via the device tree stops the [PRTG probe service](#) on the remote probe system and sets the startup type to manual. We recommend that you additionally uninstall the remote probe on the remote probe system.

Deleting a disconnected remote probe does not stop the [PRTG probe service](#) on the remote probe system and does not affect the startup type. The remote probe will continue to try to reconnect to the PRTG core server until you manually stop the PRTG probe service or uninstall the remote probe on the remote probe system.

More

 **PAESSLER WEBSITE**

How to connect PRTG through a firewall in 4 steps

- <https://www.paessler.com/support/how-to/firewall>



Part 14: Advanced Topics | 9 Add Remote Probe
1 Remote Probes and Multiple Probes

 VIDEO TUTORIAL

Distributed monitoring with PRTG

- https://www.paessler.com/learn/videos/distributed_monitoring

Add Remote Probe

- [Remote Probes and Multiple Probes](#)  4503
- [Remote Probe Setup via Device Tools](#)  4507

14.9.2 Remote Probe Setup via Device Tools

Directly install a remote probe by right-clicking a device in the device tree. This partially automatic installation mechanism is an alternative to [installing a remote probe using the Remote Probe Installer](#)^[112]. For a quick installation guide, see the Paessler Website: [How to install a PRTG remote probe in 4 steps](#).

i This is an experimental feature. It might not work in all situations. In this case, see section [Debugging](#)^[4511].

☁ This feature is not available in PRTG Hosted Monitor.

i You cannot install a remote probe on the local probe device or hosted probe device. The Remote Probe Setup via Device Tools is also not available for devices on remote probes. In this case, use the [Remote Probe Installer](#)^[112].

i If you run PRTG in a cluster, see [Cluster and Remote Probes Outside the LAN](#)^[4509].

Steps to Take

To install a remote probe directly from the device tree in the PRTG web interface, follow these steps:

- [Step 1: Meet the Requirements](#)^[4507]
- [Step 2: Prepare the PRTG Core Server](#)^[4508]
- [Step 3: Provide Credentials \(Optional\)](#)^[4509]
- [Step 4: Install the Remote Probe](#)^[4510]
- [Step 5: Approve the New Remote Probe](#)

Step 1: Meet the Requirements

To install a remote probe on a computer, make sure that you meet the following requirements.

- The target computer runs the operating system Windows 7 or later.
- The target computer is accessible through remote procedure call (RPC). This is usually the case when your PRTG core server and the target computer are located in the same LAN segment. Otherwise, open Windows [services.msc](#) on the target computer and start the RPC service.
- Programs are allowed to communicate through your Windows Firewall. Open the settings of your firewall and select Allow an app through firewall. Mark the check box for Remote Service Management, and the check box Public in the corresponding line.
- Connections between remote probes and the PRTG core server require port [23560](#). Make sure that on your PRTG core server side, this port is not blocked by firewall rules, and, on the remote probe side, the Transmission Control Protocol (TCP) port [23560](#) is open for outgoing connections as well.
 - If you need to set a different port (not recommended), see the Knowledge Base: [How can I customize ports for core-probe connections used by PRTG?](#)

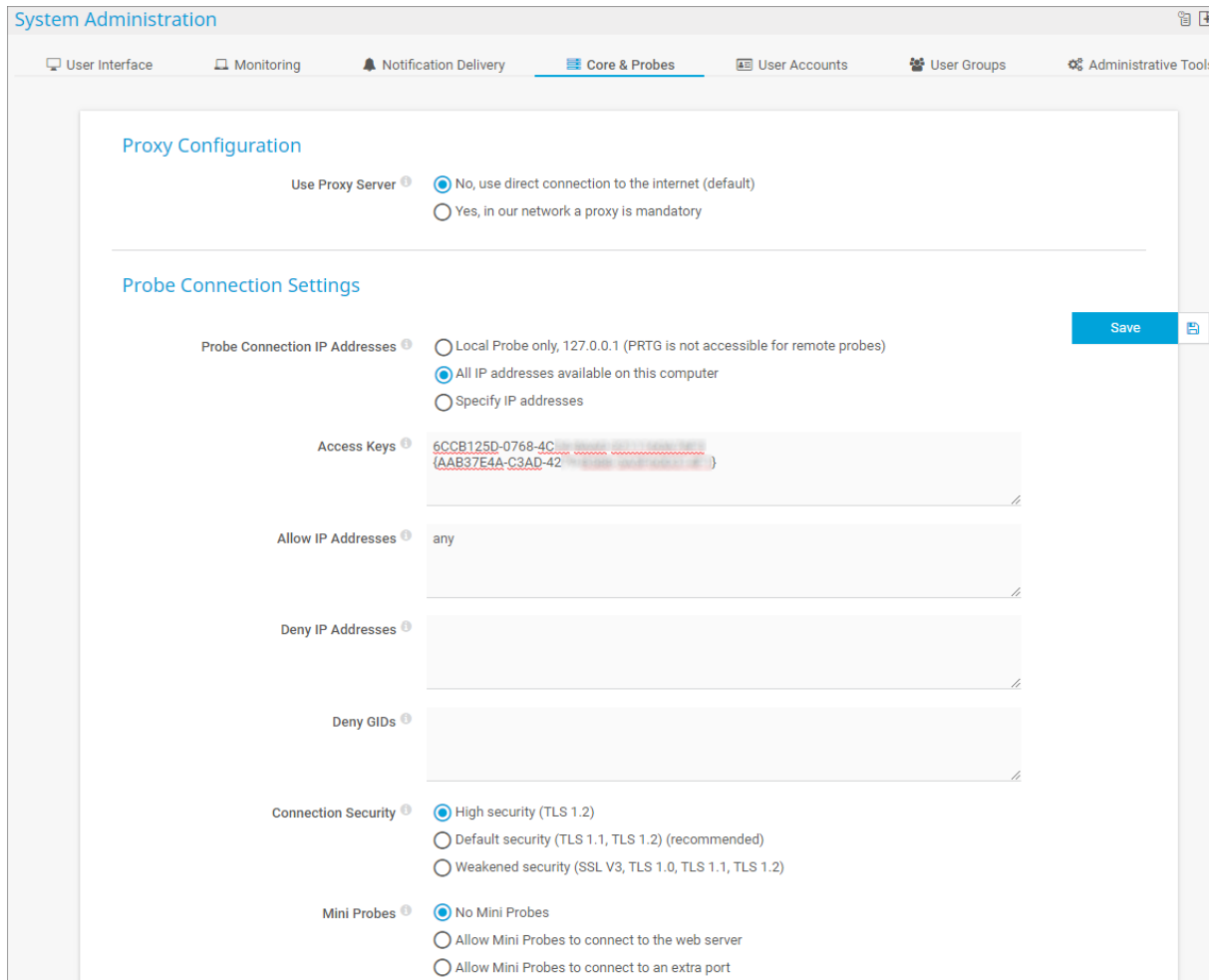
i Your PRTG on premises or PRTG Hosted Monitor installations already include a local probe or hosted probe on the PRTG core server. This is why you cannot additionally install a remote probe on your PRTG core server system.

■ For more information on the requirements for remote probes, see section [System Requirements](#)^[24].

Step 2: Prepare the PRTG Core Server

i Because your remote probe needs to connect to your PRTG core server, PRTG needs to accept incoming remote probe connections. So, with PRTG on premises, first prepare your PRTG core server before you install the remote probe.

Edit the relevant settings in section [Core & Probes](#). From the main menu in the [PRTG web interface](#), select Setup | System Administration | Core & Probes to access the probe settings and go to the Probe Connection Settings.



Probe Connection Settings in System Administration

Step 2.1: Probe Connection IPs


By default, a PRTG core server accepts connections from the Local Probe only (IP address [127.0.0.1](#)). This setting is the most secure setting, but it does not allow any remote probes to connect to your PRTG core server.

To accept remote probes, select one of the following settings:

- All IP addresses available on this computer: Any IP on your PRTG core server system accepts incoming probe connections.
- Specify IP addresses: Specify selected IP addresses that accept incoming connections.




Step 2.2: Allow IP Addresses



In the Allow IP Addresses field, you can enter the IP address of the computer on which you want to install a remote probe. You can also enter the word [any](#). This sets the PRTG core server to accept remote probe connections from any IP address.

 If you use [any](#), make sure that you only write the word in lower case. Any other variations are not valid.



Changing other settings is not required. For details about the fields for Access Keys, Deny IP addresses, and Deny GIDs, see section [Core & Probes](#) .

When you are done, click Save to save your settings.


 If you change this setting, PRTG needs to restart the PRTG core server to apply your changes. After clicking Save, a dialog box appears that asks you to confirm the restart. Click OK to trigger the restart. During the restart, all users of the PRTG web interface, of [PRTG Desktop](#) , or of [PRTG Apps for Mobile Network Monitoring](#)  are disconnected and reconnected.

 To edit the core-probe connection settings, you can also use the [PRTG Administration Tool](#)  on your PRTG core server.

Cluster and Remote Probes Outside the LAN


 If you run PRTG as a cluster and you want to run remote probes outside your local network, you have to make sure that your cluster nodes and the addresses they use are reachable from the outside. Check your cluster node settings under [Cluster](#)  before you install a remote probe outside your local network. Enter valid addresses (Domain Name System (DNS) names or IPs) for both cluster nodes to reach each other and for remote probes to individually reach all cluster nodes. Remote probes outside your LAN cannot connect to your cluster nodes if they use local addresses.



If you already have a remote probe installed outside your LAN and the remote probe is disconnected because of this, follow these steps:

1. Uninstall the remote probe.
2. Update the [cluster node settings](#)  with addresses that are reachable from outside your LAN.
3. Restart your PRTG core servers.
4. Install the remote probe again. It then obtains the IP address or DNS name entries that it can reach.

 See also section [Failover Cluster Configuration](#) , section Remote Probes in a Cluster.

Step 3: Provide Credentials (Optional)

If you have not yet done so, [add a device](#)  that represents the target computer on which you want to install the remote probe. Set the correct Windows credentials for this device.

1. Open the [device settings](#) .
2. In the Credentials for Windows Systems section, provide Domain or Computer Name, User Name, and Password for the target computer. You can also [inherit](#)  the credentials from the settings of a parent object in the device tree.

i Make sure that this user account has administration rights on the target computer.

Step 4: Install the Remote Probe

1. In the device tree, open the [context menu](#) ²⁶⁶ of the target device.
2. Select Device Tools | Install Remote Probe to open the install dialog in a new window.

i This option is only available for devices on the PRTG on premises local probe.

Install Remote Probe on Device Workstation

Please note: This is an experimental feature, it may not work in all situations. Please send your feedback to support@paessler.com.

You are about to install a remote probe on the computer "Workstation". This will allow PRTG to monitor this computer locally instead of using remote monitoring features. This can sometimes be a good workaround for performance or authentication problems (for example, for WMI sensors). Additionally, this will allow you to use some probe-only sensors like Packet Sniffer, NetFlow, and others.

Details

Device Name	Workstation
Status	OK
Priority	★★★★☆
Parent Probe	Probe (Local Probe)
Parent Group	Servers
Sensors by State	<input checked="" type="checkbox"/> 2 (Total: 2)

Prerequisites

Please make sure you fulfill the following conditions.

- The target device must be a computer with a supported Windows version.
- The target computer must be accessible through RPC (this is usually the case when your PRTG server and the target computer are located in the same LAN segment).
- Open or forward port 23560 in your firewall to allow connections between the probe and your PRTG core server.
- Windows credentials must be set in the device settings or its parents' settings (current user name: paesslergmbh\Testadmin) and the user account must have administration rights on the target machine.
- You have to allow remote probe connections to your PRTG core server. Open the Core & Probes tab in the System Administration of your PRTG web interface. In section Probe Connection Settings, select the option All IPs available on this computer or specify IPs for the setting Probe Connection IPs. Do not use the "Local Probe only" (127.0.0.1) setting! (Current setting: 10.0.0.1)

Start Probe Installation

The installation will take between 10 and 100 seconds.

[Install Remote Probe on "Workstation"](#)

Remote Probe Installation Dialog

The install dialog includes four sections:

- Experimental feature notice and short introduction
- Details: Overview of the device like Device Name, Status, Priority, Parent Probe, Parent Group, and Sensors by State.
- Prerequisites: Make sure that you meet the requirements listed here. If not, PRTG cannot start the installation process. Open requirements are highlighted in red.

Prerequisites

Please make sure you fulfill the following conditions.

- The target device must be a computer with a supported Windows version.
- The target computer must be accessible through RPC (this is usually the case when your PRTG server and the target computer are located in the same LAN segment).
- Open or forward port 23560 in your firewall to allow connections between the probe and your PRTG core server.
- You cannot install a remote probe on a probe device.
- Windows credentials must be set in the device settings or its parents' settings (current user name: test\test) and the user account must have administration rights on the target machine.
- Please correct before proceeding:** You have to allow remote probe connections to your PRTG core server. Open the Core & Probes tab in the System Administration of your PRTG web interface. In section Probe Connection Settings, select the option All IPs available on this computer or specify IPs for the setting Probe Connection IPs. Do not use the "Local Probe only" (127.0.0.1) setting! (Current setting: 127.0.0.1)

Installation Unable to Start Because Prerequisites Are Not Met

- Start Probe Installation: Time estimation for the installation and installation start button

If all prerequisites are met, you can install the remote probe on the target computer by clicking Install Remote Probe on "[device name]". Wait until the process has ended. If the installation is successful, the following message appears in the Start Probe Installation section: **Done. Result is: OK.**

- ❗ Every time you start an installation, PRTG automatically adds a new key to the field Access Keys in the [Core & Probes](#) settings, no matter if the installation has been successful or not.

Step 5: Approve the New Remote Probe

If the installation is successful, you receive further instructions after the result message. You also receive a new [ToDo ticket](#).

Click Approve and auto-discover new probe to acknowledge the new remote probe and to instantly start an [auto-discovery](#) in this network. Click Approve new probe to acknowledge the new remote probe without running an auto-discovery. You can also discard the remote probe by clicking Deny.

- ❗ When you deny or remove a remote probe, this device's global ID (GID) is listed in the Deny GIDs field in the [Core & Probes](#) settings. Future probe connections from this device are automatically denied.

- ❗ Denying the remote probe in the device tree does **not** uninstall the remote probe, but only denies access to the PRTG core server. The remote probe continues to run on the target system until you uninstall it manually.

Wait while the remote probe connects. Once the remote probe has connected, you can create groups, devices, and sensors to customize your monitoring via the new remote probe.

Debugging

- Note that installing a remote probe directly from the device tree in the PRTG web interface is an experimental feature. This approach might not be possible in all situations.
- Make sure you met all the requirements as described in [step 1](#) such as the Windows Firewall settings.
- If the quick installation procedure as described in this section does not work with your setup, manually install your remote probes via the Remote Probe Installer as described in section [Install a Remote Probe](#).

More

■ KNOWLEDGE BASE

How can I customize ports for core-probe connections used by PRTG?

- <https://kb.paessler.com/en/topic/65084>

■ PAESSLER WEBSITE

How to connect PRTG through a firewall in 4 steps



- <https://www.paessler.com/support/how-to/firewall>

Part 14: Advanced Topics | 9 Add Remote Probe
2 Remote Probe Setup via Device Tools

How to install a PRTG remote probe in 4 steps

- <https://www.paessler.com/support/how-to/remote-probe-installation>

Add Remote Probe

- [Remote Probes and Multiple Probes](#)  4503
- [Remote Probe Setup via Device Tools](#)  4507

14.10 Failover Cluster Configuration

A failover cluster consists of two or more PRTG core servers that work together to form a high availability monitoring system. PRTG offers the single failover cluster (one master node and one failover node) in all licenses, including the freeware edition.

☁ This feature is not available in PRTG Hosted Monitor.

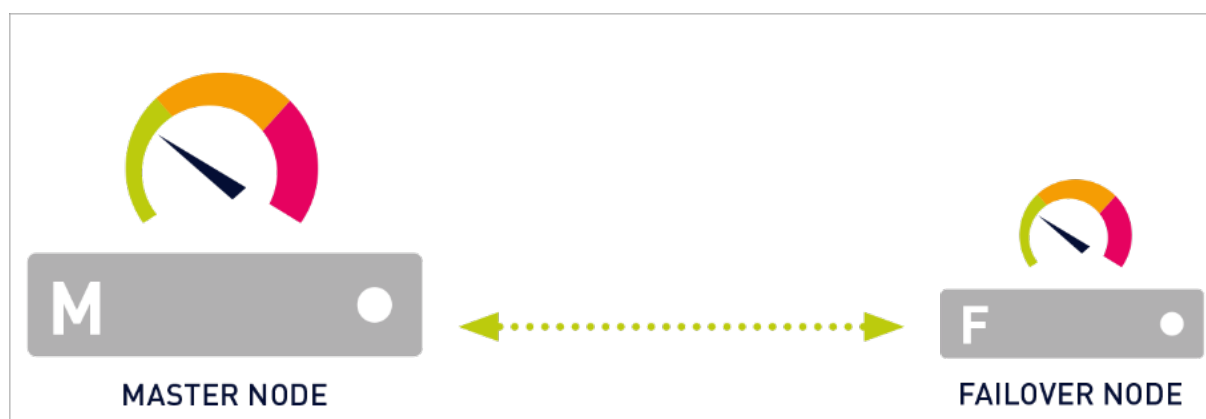


Illustration of a Single Failover Cluster

■ For more information about clusters in general, see section [Cluster](#)^[135].

Before You Start

Consider the following notes about clusters.

- You need two servers that run any Windows version (Windows 7 or later). The servers can be physical machines or virtual machines (VM). For more information, see section [System Requirements](#)^[23].
- Your servers must be up and running.
- Your servers must be similar in regard to the system performance and speed (like CPU, RAM, etc.).
- In a cluster, each of the cluster nodes individually monitors the devices that you add to the cluster probe. This means that monitoring load increases with every cluster node. Make sure your devices and your network can handle these additional requests. Often, a longer scanning interval for your entire monitoring setup is a good idea. For example, set a scanning interval of five minutes in the root group's [settings](#)^[366].
- We recommend that you install PRTG on dedicated, physical machines for best performance.
- Keep in mind that a server that runs a cluster node might automatically restart without prior notice (for example, because of special software updates).
- Both servers must be visible for each other through the network.
- Communication between the two servers must be possible in **both directions**. Make sure that no software or hardware firewall blocks communication. All communication between cluster nodes is directed through one specific Transmission Control Protocol (TCP) port. You define the port during the cluster setup (by default, it is TCP port 23570).

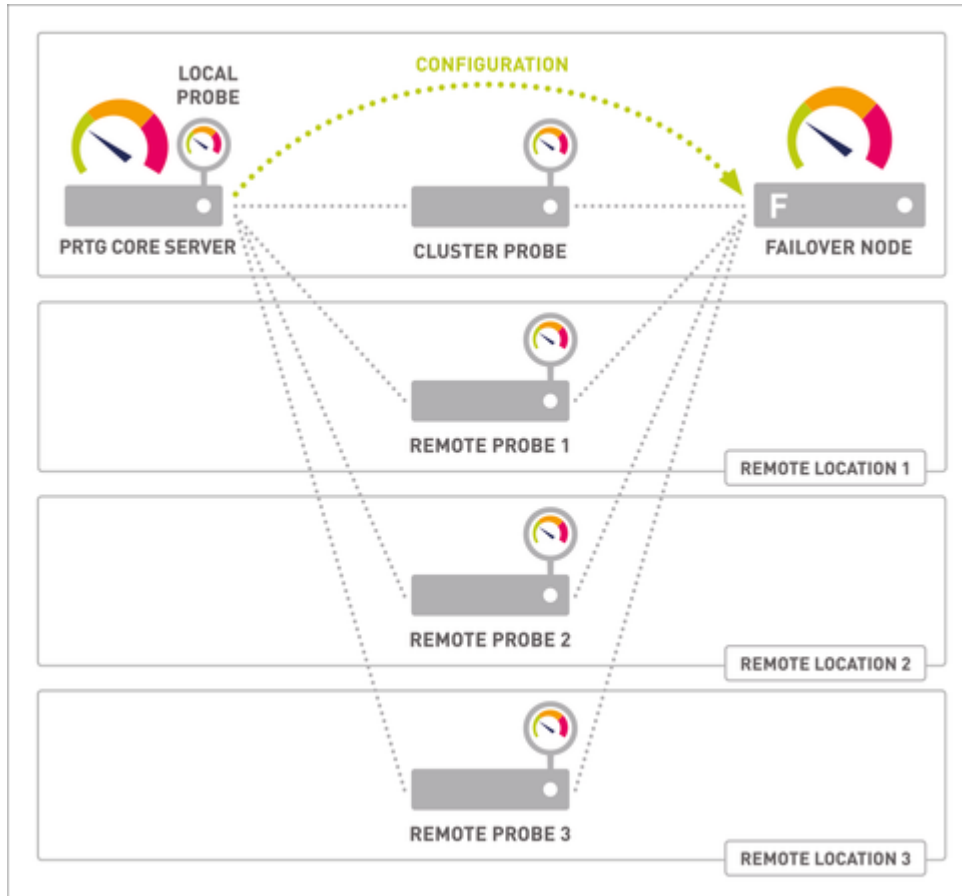
- In a cluster, a Domain Name System (DNS) name that you enter under Setup | System Administration | User Interface in the PRTG web interface is only used in links that point to the master node. You cannot enter a DNS name for a failover node. This means that any HTTP or HTTPS links that point to a failover node (for example, in notifications or in maps) always point to the failover node's IP address in your local network and might therefore not be reachable from external networks or from the internet, particularly if you use network address translation (NAT) rules.
- Email notifications for failover: The failover master node sends notifications if the primary master node is not connected to the cluster. To ensure that PRTG can deliver emails in this case, configure the [notification delivery](#) settings so that PRTG can use them to deliver emails from your failover node as well. For example, use the option to set up a secondary Simple Mail Transfer Protocol (SMTP) email server. This fallback server must be available for the failover master node so that it can send emails over it independently from the first email server.
- Make your machines secure. Every cluster node has full access to all stored credentials, other configuration data, and the monitoring results of the cluster. Also, PRTG software updates can be deployed from every cluster node. So, make sure you take security precautions to avoid security attacks like hackers and Trojans. Secure every cluster node as carefully as the master node.
- Run cluster nodes either on 32-bit or 64-bit Windows versions only. Avoid using both 32-bit and 64-bit versions in the same cluster. This configuration is not supported and might result in an unstable system. Also, ZIP compression for the cluster communication is disabled and you might encounter higher network traffic between your cluster nodes.
- If you run cluster nodes on Windows systems with different time zone settings and you use [schedules](#) to pause monitoring of sensors, the schedules apply at the local time of each cluster node. Because of this, the overall status of a particular sensor is shown as Paused every time the schedule matches a cluster node's local system time. Use the same time zone setting on each Windows system with a cluster node to avoid this behavior.
- The password for the [PRTG System Administrator](#) user account is not automatically synchronized on cluster nodes.
- Stay below 2,500 sensors per cluster for best performance in a single failover. Clusters with more than 5,000 sensors are not officially supported. For each additional failover node, divide the number of sensors by two.

In cluster mode, you cannot use sensors that wait for data to be received. Because of this, you can use the following sensors only on a [local probe or remote probe](#):

- [DHCP](#)
- [HTTP Push Count](#)
- [HTTP Push Data](#)
- [HTTP Push Data Advanced](#)
- [IPFIX](#) and [IPFIX \(Custom\)](#)
- [jFlow v5](#) and [jFlow v5 \(Custom\)](#)
- [NetFlow v5](#) and [NetFlow v5 \(Custom\)](#)
- [NetFlow v9](#) and [NetFlow v9 \(Custom\)](#)
- [Packet Sniffer](#) and [Packet Sniffer \(Custom\)](#)
- [sFlow](#) and [sFlow \(Custom\)](#)
- [SNMP Trap Receiver](#)
- [Syslog Receiver](#)

Remote Probes in a Cluster

PRTG provides cluster support for remote probes. This means that all your remote probes can connect to all of your cluster nodes. Because of this, you can still see monitoring data of remote probes and sensor warnings and errors even when your master node fails.



Remote Probes with Cluster Connectivity

Consider the following notes about clusters with remote probes.

- You have to allow remote probe connections to your failover nodes. To do so, log in to each machine in your cluster and open the [PRTG Administration Tool](#)⁴³⁵¹. On the PRTG Core Server tab, accept connections from remote probes on each cluster node.
- If you use remote probes **outside your local network**: You have to use IP addresses or Domain Name System (DNS) names for your cluster nodes that are valid for both the cluster nodes to reach each other and for remote probes to reach all cluster nodes individually. Open the [Cluster](#)⁴²²⁹ settings and adjust the entries for cluster nodes accordingly so that these addresses are reachable from the outside. New remote probes try to connect to these addresses but cannot reach cluster nodes that use private addresses.
- If you use network address translation (NAT) with remote probes **outside the NAT**: You have to use IP addresses or DNS names for your cluster nodes that are reachable from the outside. If your cluster nodes are inside the NAT and the cluster configuration only contains internal addresses, your remote probes from outside the NAT are not able to connect. The PRTG core server must be reachable under the same address for both other cluster nodes and remote probes.

- A remote probe only connects to the PRTG core server with the defined IP address when starting. This PRTG core server must be the primary master node.
 - Initially, remote probes are not visible on failover nodes. You need to set their Cluster Connectivity first in the [Administrative Probe Settings](#)^[409] for them to be visible and to work with all cluster nodes. Select Remote probe sends data to all cluster nodes for each remote probe that you want to connect to all cluster nodes.
 - Newly connected remote probes are visible and work with all cluster nodes immediately after you acknowledge the probe connection. The connectivity setting Remote probe sends data to all cluster nodes is default for new remote probes.
 - As soon as you activate a remote probe for all cluster nodes, it automatically connects to the correct IP addresses and ports of all cluster nodes.
 - Once a remote probe has connection data from the primary master node, it can connect to all other cluster nodes also when the primary master node fails.
 - Changes that you make in the connection settings of cluster nodes are automatically sent to the remote probes.
 - If a PRTG core server (cluster node) in your cluster is not running, the remote probes [deliver monitoring data](#)^[450] after the server restarts. This happens individually for each PRTG core server in your cluster.
 - If you enable cluster connectivity for a remote probe, it does not deliver monitoring data from the past when cluster connectivity was disabled. For sensors that use difference values, the difference between the current value and the last value is shown with the first new measurement (if the respective sensor previously sent values to the PRTG core server).
 - Except for this special case, all PRTG core servers show the same values for sensors on devices that you add to the cluster probe.
 - The PRTG core server that is responsible for the configuration and management of a remote probe is always the current master node. This means that only the current master node performs all tasks of the PRTG core server. If you use a split cluster with several master nodes, only the master node that appears first in the cluster configuration is responsible.
- i** You can use remote probes in a cluster as described above, which is showing monitoring data of all remote probes on all cluster nodes. However, you cannot cluster a remote probe itself. To ensure gapless monitoring for a specific remote probe, install a second remote probe on a machine in your network next to the remote probe. Then create all devices and sensors of the original remote probe on the second remote probe by [cloning](#)^[4010] the devices from the original remote probe, for example. The second remote probe is then a copy of the first remote probe and you can still monitor the desired devices if the original remote probe fails.
- i** Remote probes that send data to all cluster nodes result in increased bandwidth usage. Select Remote probe sends data only to primary master node in the [probe settings](#)^[409] for one or more remote probes to lower bandwidth usage if necessary.
- i** Explicitly check on each cluster node if a remote probe is connected. PRTG does not notify you if a remote probe is disconnected from a cluster node. For example, log in to the PRTG web interface on a cluster node and check in the device tree if your remote probes are connected.

More

KNOWLEDGE BASE

What's the clustering feature in PRTG?

- <https://kb.paessler.com/en/topic/6403>

What are the bandwidth requirements for running a cluster?

- <https://kb.paessler.com/en/topic/8223>

What is a failover master node and how does it behave?

- <https://kb.paessler.com/en/topic/7663>

I need help with my cluster configuration. Where do I find step-by-step instructions?

- <https://kb.paessler.com/en/topic/41913>

Cluster: How do I convert a (temporary) failover master node to be the primary master node?

- <https://kb.paessler.com/en/topic/34853>

Are there alternatives to the cluster when running a large installation?














- <https://kb.paessler.com/en/topic/75474>

■ PAESSLER WEBSITE

How to connect PRTG through a firewall in 4 steps

- <https://www.paessler.com/support/how-to/firewall>

Advanced Topics

- [Active Directory Integration](#)  4385
- [Application Programming Interface \(API\) Definition](#)  4389
- [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4475
- [Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4481
- [Define IP Address Ranges](#)  4483
- [Define Lookups](#)  4485
- [Regular Expressions](#)  4497
- [Calculating Percentiles](#)  4499
- [Add Remote Probe](#)  4501
- [Failover Cluster Configuration](#)  4513
- [Data Storage](#)  4526
- [PRTG Housekeeping](#)  4531
- [Using Your Own SSL Certificate](#)  4537









14.10.1 Failover Cluster Step by Step

This section guides you through the step-by-step process to set up a failover cluster. Follow these instructions carefully to successfully integrate two or more PRTG core servers into one failover cluster.

 Before you start, make sure that you consider the information in section [Failover Cluster Configuration](#) .

 This feature is not available in PRTG Hosted Monitor.

In this section:


- [Step 1: Install the PRTG Core Servers](#) 
- [Step 2: Configure the Master Node](#) 
- [Step 3: Configure the Failover Node](#) 
- [Step 4: Confirm the Failover Node](#) 
- [Step 5: Check the Cluster Connection](#) 
- [Step 6: Troubleshooting](#) 
- [Step 7: Move Sensors to the Cluster Probe Now](#) 
- [Step 8: Move Custom Content to the Failover Nodes](#) 
- [Step 9: Add More Failover Nodes \(optional\)](#)

Step 1: Install the PRTG Core Servers

First, you need two separate PRTG core server installations. Use the same license key for both PRTG core server installations.

If you already have a PRTG core server, this is your future master node. In this case, set up an additional PRTG core server installation.


Before you set up a cluster, make sure that all (future) cluster nodes run the **exact same** PRTG version (build number). Install updates if necessary.

 Once you establish the cluster, any updates that you install on a cluster node are automatically deployed to all other cluster nodes.

 For details about the installation process, see section [Install a PRTG Core Server](#) .

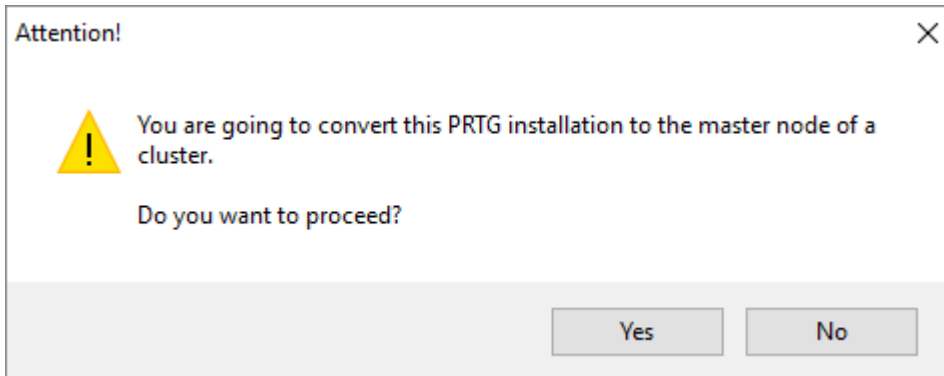
Step 2: Configure the Master Node

Decide which of your PRTG core server installations is your future master node. If you have an installation of PRTG in your network that has been running for some time, this should be your master node so that your monitoring configuration is kept.

On the master node, from the Windows Start menu, open the [PRTG Administration Tool](#) . On the Cluster tab, click the following button:

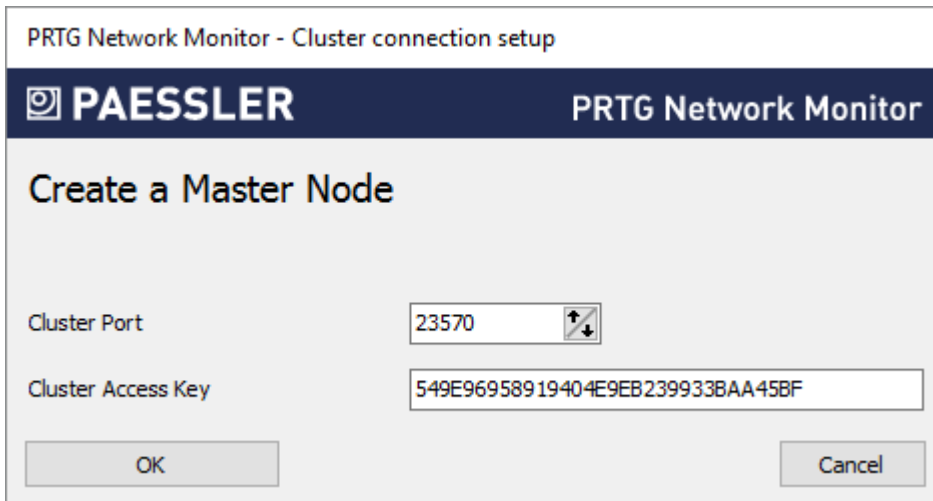
Create a Cluster

- Click Create a Cluster to create a cluster. The current PRTG core server is then the **master node** of the cluster.
- Click Yes to convert this installation to a master node.



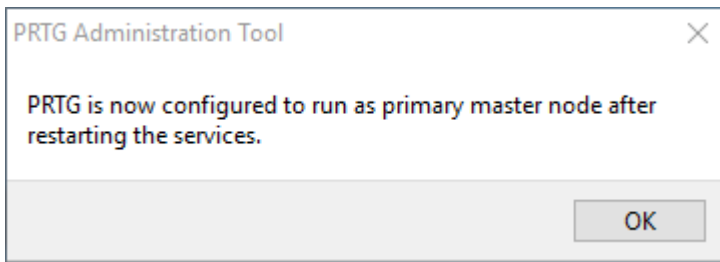
Converting an Installation to a Master Node

- A dialog box appears.



Creating a Master Node

- Enter a Cluster Port. This is the port on which PRTG sends the internal communication between the cluster nodes. Make sure that connections between the cluster nodes are possible on the selected port.
- Enter or paste a Cluster Access Key. This is a unique access key. All cluster nodes must use the same cluster access key to join the cluster. Connection attempts with a different access key are not possible. We recommend that you use the default value.
 - ① ▪ Save the Cluster Access Key so that you have it at hand when you configure the failover nodes.
- After confirming your settings, you are asked to restart Windows services. Click OK to restart the Windows services so that your changes take effect.



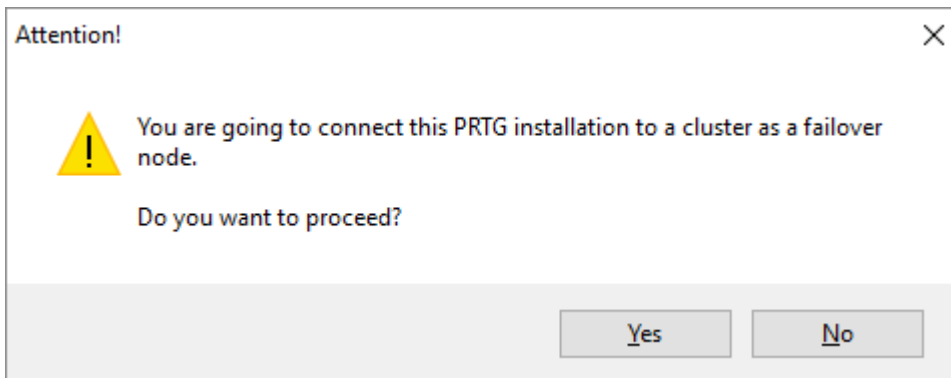
Restart Services to Apply Changes

Step 3: Configure the Failover Node

On the machine that is your failover node, open the [PRTG Administration Tool](#)⁴³⁶³. On the Cluster tab, click the following button:

Join a Cluster


- Click Join a Cluster to add this installation to a cluster that already has a **master node**. The current PRTG core server is then a **failover node**.
- This button is also available if the PRTG core server is in Cluster Mode: Master Node. This option then changes the master node to a failover node.
- Click Yes to convert this installation into a failover node.

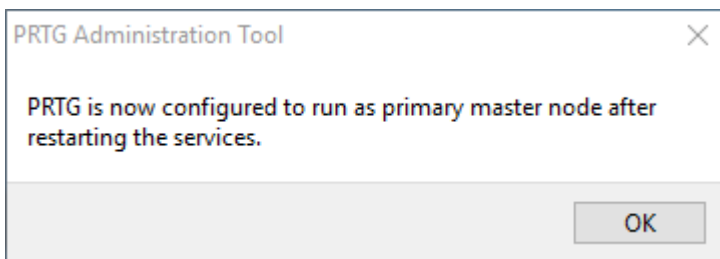


Converting an Installation to a Failover Node

- A dialog box appears.

Cluster Connection Setup

- Enter a Master Node (IP address/DNS name) for the cluster. It must be reachable from the machine that runs the failover node.
- Enter the other settings as defined in the settings of the [master node](#). Make sure that you use the same settings on all cluster nodes.
- Enter a Cluster Port. This is the port on which PRTG sends the internal communication between the cluster nodes. Make sure that connections between the cluster nodes are possible on the selected port.
- Enter or paste a Cluster Access Key. This is a unique access key. All cluster nodes must use the same cluster access key to join the cluster. Connection attempts with a different access key are not possible. We recommend that you use the default value.
 -  After confirming your settings, you are asked to restart Windows services. Click OK to restart the Windows services so that your changes take effect.



Restart Services to Apply Changes

Step 4: Confirm the Failover Node

Now you need to confirm the new failover node by setting it to Active in the master node's settings.

In a browser window, log in to the [PRTG web interface](#) ¹⁶⁴ of the master node.

In the [Cluster](#) ⁴²⁸ settings, you see your master node in the first line of the cluster list and your failover node in the second line.

i If you use [remote probes](#) ⁴⁵⁰³ outside of your local network, for each PRTG core server in the cluster, use a Domain Name System (DNS) name or IP address that the remote probes can reach from the outside. Enter the entries in the [Cluster Node Setup](#) ⁴²³⁰ table accordingly. The addresses must be valid for both cluster nodes to reach each other and for remote probes to individually reach all cluster nodes. Remote probes outside your LAN cannot reach private IP addresses or DNS names.

Cluster Node Setup

Node Name	Node ID	Node State	IPs/DNS Names used for Connections Between Nodes				
1 PRTG Network Monitor (10.0.1)	85F	Active	#2 ⇒ #1	#3 ⇒ #1	#4 ⇒ #1	#5 ⇒ #1	
2 Node 10.0.10.35	CF0	<input checked="" type="radio"/> Active	#1 ⇒ #2	#3 ⇒ #2	#4 ⇒ #2	#5 ⇒ #2	
3		<input type="radio"/> Active	#1 ⇒ #3	#2 ⇒ #3	#4 ⇒ #3	#5 ⇒ #3	
4		<input type="radio"/> Active	#1 ⇒ #4	#2 ⇒ #4	#3 ⇒ #4	#5 ⇒ #4	
5		<input type="radio"/> Active	#1 ⇒ #5	#2 ⇒ #5	#3 ⇒ #5	#4 ⇒ #5	

IPs/DNS Names used for Connections

#2 ⇒ #1

10.0.10.34

#1 ⇒ #2

10.0.10.35

System Administration: Cluster Node Setup

For the failover node, set the Node State to Active and Save the changes. The cluster nodes now connect and exchange configuration data. This might take a few minutes.

Step 5: Check the Cluster Connection

In two browser windows, log in to the PRTG web interfaces of **both** of your PRTG core servers. Open the Cluster Status tab in both windows. You should see the cluster status with the two cluster nodes in a Connected state after a few minutes.

Node 1: PRTG Network Monitor (10.0.10.34)		
Primary Node (Current Master)		Start Maintenance Mode
Connection To	IP	State
⇒ Node 10.0.10.35	10.0.10.35	Connected
Node 2: Node 10.0.10.35		
Secondary Node (Failover Node, Version: 50186)		Start Maintenance Mode
Connection To	IP	State
⇒ PRTG Network Monitor (10.0.10.34)	10.0.10.34	Connected

Cluster Status

Step 6: Troubleshooting

If the cluster nodes cannot connect, see

- the cluster log entries on the [Cluster Status](#) ⁴²⁴⁸ tab in the PRTG web interface
- the PRTG core server logfile, a text file in the \Logs subfolder of the [PRTG data directory](#) ⁴⁵²⁶, ⁴⁵²⁶

In the latest entries of these logs, you can see messages about any errors that might have occurred. These give you hints on where to find a solution.

If you have connection issues with the two cluster nodes, make sure that no software or hardware firewall is blocking communication on the cluster port defined during cluster setup. Communication between the cluster nodes must be possible in **both directions** for the cluster to work properly.

Step 7: Move Sensors to the Cluster Probe Now

You have successfully set up your failover cluster. All devices that you create or move under the cluster probe are monitored by both cluster nodes.

i To monitor your configuration via all cluster nodes, on your master node, move your groups, devices, and sensors from the local probe to the cluster probe. Objects, including their settings, are then automatically transferred to all cluster nodes.



Step 8: Move Custom Content to the Failover Nodes

On startup of the master node, [maps](#) ⁴⁰⁹⁵ and [custom lookups](#) ⁴⁴⁸⁵ are automatically transmitted to the failover nodes. While changes to maps are automatically synchronized, you have to manually [\(re\)load lookups](#) ⁴⁴⁹⁴ on all cluster nodes. Other custom content has to be manually copied from the according subfolders of the [PRTG program directory](#) ⁴⁵²⁶ on the master node to the same folders on the failover nodes.

Custom Content	Subfolder of the PRTG Program Directory
Device templates 	\devicetemplates
Custom sensors 	\devicetemplates
MIB files 	\MIB
SNMP libraries 	\snmplibs
Notifications 	\Notifications

Step 9: Add More Failover Nodes (optional)

If you want to add an additional failover node to your cluster, you need an additional license key to run two and three failover nodes, and two additional license keys to run four failover nodes.

i In a cluster, only PRTG core servers that have with the same [license](#)  type can be combined. To add an additional failover node to the cluster, set up a new PRTG core server on a new machine and use an additional license key. Then proceed with [step 3](#)  and following. Use a second license key to set up both the second failover node and third failover node. Use a third license key to set up the fourth failover node. Each failover cluster is technically limited to five cluster nodes: as a maximum, you can have one master node and four failover nodes in one cluster.

i Stay below 2,500 sensors for best performance in a cluster. Clusters with more than 5,000 sensors are not supported. For each additional failover node, divide the number of sensors by two.

More

■ KNOWLEDGE BASE

My cluster is messed up. How can I start over?





- <https://kb.paessler.com/en/topic/41903>










■ PAESSLER WEBSITE

How to connect PRTG through a firewall in 4 steps

- <https://www.paessler.com/support/how-to/firewall>

Advanced Topics

- [Active Directory Integration](#) 
- [Application Programming Interface \(API\) Definition](#) 
- [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#) 
- [Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors](#) 

- [Define IP Address Ranges](#)  4483
- [Define Lookups](#)  4486
- [Regular Expressions](#)  4497
- [Calculating Percentiles](#)  4499
- [Add Remote Probe](#)  4501
- [Failover Cluster Configuration](#)  4513
- [Data Storage](#)  4526
- [PRTG Housekeeping](#)  4531
- [Using Your Own SSL Certificate](#)  4537

14.11 Data Storage

PRTG stores the monitoring configuration, monitoring data, logs, tickets, and reports, as well as support and debug data into different subfolders in the PRTG data directory on the probe system. Additionally, there is data in the PRTG program directory (for example, scripts for your custom sensors^[4526]) and in the Windows registry.

☁ You cannot access these directories on the PRTG Hosted Monitor core server system.

Find the following topics below:

- [PRTG Program Directory](#)^[4526]
- [PRTG Data Directory](#)^[4526]
- [Files and Subfolders in the PRTG Data Directory](#)^[4526]
- [Structure of the Logs Folder](#)^[4528]
- [Windows Registry](#)^[4529]
- [HTTP Full Web Page Sensor: Cached Files](#)^[4529]
- [Auto-Update Files](#)

PRTG Program Directory

32-bit systems:

```
%programfiles%\PRTG Network Monitor
```

64-bit systems:

```
%programfiles(x86)%\PRTG Network Monitor
```

i These are the default paths. If you specified a different installation directory, you find your data there.

PRTG Data Directory

On Windows Vista (not officially supported), Windows 7, Windows Server 2008 R2, Windows 8, Windows 8.1, Windows Server 2012, Windows 10, Windows Server 2016, or Windows Server 2019:

```
%programdata%\Paessler\PRTG Network Monitor
```

i These are the default paths, depending on your Windows version. If you specified a custom path for data storage, you need to look it up in the [PRTG Administration Tool](#)^[4351] on the PRTG Core Server tab. You find the path there.

i The Windows ProgramData folder is hidden by default. To display it, you have to enable hidden items in the View options of your Windows system.

Files and Subfolders in the PRTG Data Directory

The following files are stored in the PRTG data directory:

File	Description	File Format
PRTG Configuration.dat	Monitoring configuration (for example probes, groups, devices, sensors, users, maps, reports, and more)	Extensible Markup Language (XML)
PRTG Configuration.old	Backup of previous version of monitoring configuration	XML
PRTG Graph Data Cache.dat	Precalculated data for the graphs throughout the PRTG web interface (if missing, this file is automatically recalculated from the files in the "monitoring database")	Proprietary

The following folders are stored in the PRTG data directory:

Folder	Description	File Format
\Configuration Auto-Backups	Backup versions of the file PRTG Configuration.dat	ZIP / XML
\Log Database	Database with the recent event history for the whole system: menu option Logs in the PRTG web interface	Raw data format (DB)
\debug	Text file based logs of the core server system and the probe system	TXT
\sensors	Text file based debug logs of the sensors (files named after the ID of a sensor; logs are written only if activated in a sensor's settings)	TXT
\core	Text file based logs of the core server system, the probe system, the cluster system, and result files for certain sensors	TXT
\webservice	HTTP server logfiles of the PRTG web server	Standard web server log format
\Monitoring Database	Results of all monitoring requests for all sensors (required for historic reports)	Proprietary
\Report PDFs	Older PDF reports stored in the file system	PDF
\reporter	Screenshots created for reporting issues to the Paessler Support team	PNG
\Screenshots (Fullpage Sensor)	Screenshots stored by the PhantomJS browser engine of the HTTP Full Web Page sensor	JPG (in subfolders)

Folder	Description	File Format
\StreamLog	Data logfiles for Packet Sniffer and xFlow (NetFlow, jFlow, sFlow, IPFIX) sensors (only available if activated in the sensor settings)	
\Support Data	Collected and compressed logfile data when sending a support bundle to the Paessler support team ■ For more information, see the Knowledge Base: What is the best way to contact Paessler Support?	LOG / TXT / ZIP
\Syslog Database	Received Syslog messages	Proprietary
\System Information Database	Retrieved system information ^[23] for the categories hardware, users (loggedonusers), processes, services, software, system (in according subfolders)	Proprietary (in JavaScript Object Notation (JSON) format)
\ToDo Database	Database with all ToDo entries	Raw data format (DB) Deprecated as of PRTG 14.1.8
\Ticket Database	Database with all tickets ^[24] (ticketdata.dat)	Raw data format (DAT)
\Toplist Database	Database for historic Toplists for Packet Sniffer and xFlow sensors	Raw data format (TOP)
\Trap Database	Received SNMP Trap messages	Proprietary

Structure of the Logs Folder

Folder	Description	File Format
\appserver	Currently not in use	N/A
\core	Text file based logs of the core system and cluster system	TXT
\debug	Text file based debug logs of the core system and probe system, and core cache recalculation	TXT
\desktopclient	Currently not in use	N/A

Folder	Description	File Format
\enterpriseconsole	Text file based logs of the deprecated Enterprise Console	TXT
\probe	Text file based logs of the probe system	TXT
\reporter	Text file based logs of creating PDF reports and screenshots for the Paessler Support team	TXT
\sensordeprecation	Text file based log of deprecated sensors	TXT
\sensors	Text file based logs of sensors	TXT
\serveradmin	Text file based logs of the administration system	TXT
\webserver	HTTP server logfiles of the PRTG web server	TXT

Windows Registry

System settings on 32-bit systems:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Paessler\PRTG Network Monitor
```

System settings on 64-bit systems:

```
HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Paessler\PRTG Network Monitor
```

HTTP Full Web Page Sensor: Cached Files

If you use the HTTP Full Web Page, files might be cached in this directory:

```
C:\Windows\System32\config\systemprofile\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5
```

Auto-Update Files

PRTG automatically saves downloaded software versions in the \download subfolder of the PRTG program directory. The compressed prtg.zip file that contains all necessary files is also cached there.

More

■ KNOWLEDGE BASE














What is the best way to contact Paessler Support?

- <https://kb.paessler.com/en/topic/57993>

How and where does PRTG store its data?

- <https://kb.paessler.com/en/topic/463>












Advanced Topics

- [Active Directory Integration](#)  4385
- [Application Programming Interface \(API\) Definition](#)  4389
- [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4475
- [Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors](#)  4481
- [Define IP Address Ranges](#)  4483
- [Define Lookups](#)  4485
- [Regular Expressions](#)  4497
- [Calculating Percentiles](#)  4499
- [Add Remote Probe](#)  4501
- [Failover Cluster Configuration](#)  4513
- [Data Storage](#)  4526
- [PRTG Housekeeping](#)  4531
- [Using Your Own SSL Certificate](#)  4537


14.12 PRTG Housekeeping

Once you have prepared your IT infrastructure and set up the devices and sensors you need for monitoring your network with PRTG, you can let PRTG do its work. However, you should regularly review your setup to keep your installation of PRTG up to date and ensure the best possible monitoring for your network. In this section, you find some tips on what to check in your PRTG installation and, if necessary, how to clean it up.

In this section:


- [General Issues](#) 
- [License and Version Check](#) 
 - [License Information](#) 
 - [Software Version and Server Information](#) 
- [System and Performance Check](#) 
 - [Overall System Status](#) 
 - [Background Tasks](#) 
 - [Libraries and Sensors Check](#) 
 - [User Accounts Check](#) 
 - [Maps Check](#) 
 - [Notifications](#) 
 - [Data Storage and Backup](#)

General Issues

- Check if you still have your license document. If not, [request your license](#) from Paessler anew.
- Check if the customer contact details (including VAT identification number) that Paessler has from you are still valid. If you need to update your data, do not hesitate to [contact](#) us.
- If you [use your own SSL certificate](#)  and not the default Secure Sockets Layer (SSL) certificate delivered with PRTG, check if your certificate is still valid.
- Regularly check our [Paessler Blog](#) and/or subscribe to our weekly newsletter to stay up to date regarding PRTG and other IT-related content.

License and Version Check

License Information

- Check if your license  is still up to date. You can view the activation status of PRTG under Setup | License Information.

 This option is not available in PRTG Hosted Monitor. For PRTG Hosted Monitor, log in to your PRTG Hosted Monitor instance and [manage your subscription](#)  there.

- For a quick overview of your license status, go to the [Welcome](#) ¹⁷⁴ page. There you can see how many maintenance days you have left and the number of sensors available to you.
 - ❗ The number of available sensors that is displayed here does not consider sensors in the Paused [status](#) ¹⁹⁷ for technical reasons. However, sensors in the Paused status are not included in the maximum number of sensors that your license allows. Add the number of your sensors that are in the Paused status to the displayed number to know exactly how many sensors are still available on your installation.

Software Version and Server Information

- Check if you run the most recent version of PRTG. You can view your PRTG version under Setup | PRTG Status, section Software Version And Server Information. The version number consists of the following parts: **year**, **quarter**, **version**, **build**. For example, if your PRTG version is **19.2.52.1161**, this means that you have installed version **52**, build **1161**, which was released in the second quarter of the year **2019**.
 - Check if the selected [release channel](#) ²⁰ is still the one that fits your monitoring requirements. You can view the release channel you use under Setup | Auto-Update | Status. Available channels are Stable (most conservative option), Preview (thoroughly tested), and Canary (for testing only). To select a different release channel, click the Select Other Release Channel link.
- ❗ You can also view your installed PRTG version and release channel in the footer of the PRTG web interface.

System and Performance Check

Overall System Status



Check your overall [system status](#) ⁴²³⁶ under Setup | PRTG Status.

Section	What to do
Software Version And Server Information	<p>Check your Server CPU Load. This value should be lower than 50%.</p> <ul style="list-style-type: none"> ■ For information on how to improve your system performance, see the Knowledge Base: How can I speed up PRTG—especially for large installations?
System Startup Log	<ul style="list-style-type: none"> ▪ Check if the log of your last system startup is OK all in all. ▪ Check when the last system restart took place. If it has been more than one month, we recommend that you restart your server. Optionally, you can combine the restart with the installation of the latest Windows updates. <ul style="list-style-type: none"> ❗ To schedule an automatic probe restart (for example, for the local probe or a remote probe), go to the respective probe's Settings tab, section Scheduled Restart Settings, and select your favorite Restart Option. ■ For further logfiles and where to find them, see section Data Storage ⁴⁵²⁶.
System Warnings	<p>Check if your system warnings say None.</p>



Section	What to do
	<p>System warnings that might be shown are, for example:</p> <ul style="list-style-type: none"> ▪ The available diskspace is too low! ▪ The available memory is too low! ▪ Connection to database lost! ▪ No configuration file found, but monitoring data for an unknown configuration exists! ▪ This beta version has expired ▪ The path to PRTG's configuration file (%s) could not be found. Please check network paths if applicable. ▪ Internal error. Restart of PRTG required. ▪ The license of this cluster member is not valid for operating in the configured cluster.
Sensors by Interval	<ul style="list-style-type: none"> ▪ Check how many sensors have a scanning interval of 300 seconds or even shorter. ▪ Ask yourself if the chosen scanning intervals really make sense regarding the performance impact^[4243] of the respective sensors on your system. Shorter scanning intervals usually do not give you more accuracy but cause unnecessary load on your machine and the network. For example, does a WMI Free Disk Space (Multi Disk) sensor really need to scan your disks every 60 seconds, or is it really necessary to search for Windows updates more often than once every 24 hours? <p>ⓘ Tip: Change the scanning interval in the Root Group Settings^[366] and use the inheritance mechanism to use this interval for all objects that are below in the object hierarchy.</p>
System Settings	<ul style="list-style-type: none"> ▪ Check if your web server ports are still correct. ▪ If your PRTG core server system is reachable via the internet, we recommend that you prevent communication via port 80 (HTTP) and that you only use port 443 (HTTPS). To change the web server settings, go to Setup | System Administration | User Interface, section Web Server, and select a TCP Port for Web Server.
Web Server Activity	<p>Check the Slow Request Ratio. This value should be lower than 10%.</p>

Background Tasks




- Check if there are any scheduled [auto-discoveries](#)^[296] that you do not need anymore. You can view a list of all auto-discovery processes or running auto-discovery processes under Logs | System Events | Auto-Discovery.

- Check if [similar sensors detection](#)  is enabled. If you do not need this analysis (which runs with low priority in the background), go to Setup | System Administration | Monitoring and select Turn analysis off.
- Check if [recommended sensors detection](#)  is enabled. If you do not need this analysis (which runs with low priority in the background when you add a new device, when the last analysis was executed more than 30 days ago, or when you manually start it), go to Setup | System Administration | Monitoring and select Turn sensor recommendations off.


Libraries and Sensors

- Check if all your [libraries](#)  are up to date. Remove all (default) libraries that you do not need.
- Check if there are any sensors that are still monitoring your network although you do not need them for your infrastructure, particularly if they have a high impact on system performance. For example, this includes the following sensor types: Sensor Factory, Packet Sniffer, VMware, Email Round Trip, SQL Server, CloudWatch, QoS, File, Folder, HTTP Full Web Page, and custom EXE sensors. Set the sensors to the Paused status if you do not want to completely delete them from your system.
- Check the number of channels per sensor. Sensors with more than 50 channels can have a high impact on system performance.
- Check the [List of Available Sensor Types](#) . Are there any new sensors that you do not know yet?





User Accounts

- Check if your [user accounts](#)  and [user groups](#)  are still up to date. Update user contact details (email address, phone number) if necessary, or disable users that do not work with the respective installation of PRTG anymore. Always keep in mind that multiple user accounts and groups can slow down web server performance.
- Check your [user access rights](#)  settings.

Maps

- Check if the [maps](#)  you created are still in use or if you could delete them.
- Check if there are any broken links in the maps that might need correction.
- Check if you can still retrieve embedded HTML objects and frames.

Notifications

- Check if the contact details (email address, phone number for SMS) in your [notification contacts](#)  are still up to date.
- Check if custom [notification templates](#)  are still in use by clicking  under Setup | Account Settings | Notification Templates.
- Check if there are any new default notification templates that might be of use for your specific setup.
- Check if your notification templates still work by clicking  under Setup | Account Settings | Notification Templates.
- Check if there are any error messages regarding notifications under Logs | System Events | Notifications.

Data Storage and Backup

- Check for how many days [different kinds of data are kept](#)⁴²⁰⁶ and if you might be able to optimize your settings so that the file containing this data does not get too large. To change the settings, go to Setup | System Administration | Core & Probes, section Historic Data Purging.
- Manually check the \Configuration Auto-Backups subfolder of the [PRTG data directory](#)⁴⁵²⁶: Are backups still being written? Are these backups perhaps filling up available disk space?
 - For more information, see also the Knowledge Base: [How do I back up all data and configuration of my PRTG installation?](#)

More

■ KNOWLEDGE BASE

How can I speed up PRTG—especially for large installations?

- <https://kb.paessler.com/en/topic/2733>

How and where does PRTG store its data?

- <https://kb.paessler.com/en/topic/463>

How do I back up all data and configuration of my PRTG installation?

- <https://kb.paessler.com/en/topic/523>

How can I move or migrate a PRTG installation to a different system or server?

- <https://kb.paessler.com/en/topic/88205>

My PRTG has crashed and I can't restart it anymore. What can I do?

- <https://kb.paessler.com/en/topic/50833>

■ PAESSLER BLOG

7 useful PRTG support resources you should know

- <https://blog.paessler.com/7-useful-prtg-support-resources-you-should-know>

■ PAESSLER WEBSITE







Release notes for the "stable" release channel

- <https://www.paessler.com/prtg/history/stable>

Advanced Topics

- [Active Directory Integration](#)⁴³⁸⁵
- [Application Programming Interface \(API\) Definition](#)⁴³⁸⁹
- [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#)⁴⁴⁷⁵
- [Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors](#)⁴⁴⁸¹
- [Define IP Address Ranges](#)⁴⁴⁸³
- [Define Lookups](#)⁴⁴⁸⁵
- [Regular Expressions](#)⁴⁴⁹⁷

Part 14: Advanced Topics | 12 PRTG Housekeeping

- [Calculating Percentiles](#)  4499
- [Add Remote Probe](#)  4501
- [Failover Cluster Configuration](#)  4513
- [Data Storage](#)  4526
- [PRTG Housekeeping](#)  4531
- [Using Your Own SSL Certificate](#)  4537

14.13 Using Your Own SSL Certificate with the PRTG Web Server

This section gives you a brief overview of how to use your own trusted Secure Sockets Layer (SSL) certificate files with the PRTG web server.

☁ This only applies to PRTG on premises installations, not to PRTG Hosted Monitor instances.

What is SSL/TLS?

PRTG supports SSL/TLS to secure all data entered and shown in the [PRTG web interface](#)^[163], in [PRTG Desktop](#)^[4276], or in the [PRTG apps for iOS or Android](#)^[4276]. This ensures that no sensitive information can be intercepted when sending data between the PRTG core server and your client software.

By default, PRTG is delivered with an SSL certificate so you can use secure connections to your PRTG core server. However, this is a self-signed certificate, which is why browsers show an [SSL certificate warning](#)^[169] when you try to access the PRTG web interface. Despite this warning, your connection is still completely secure.

To remove the browser warning, you can obtain a certificate that is valid for your own domain name and signed by a valid authority. You can request your own trusted certificate from an issuer like GoDaddy, DigiCert, or InstantSSL, for example. You must provide the certificate in a suitable format and you have to import it correctly into your PRTG core server.

Importing Trusted SSL Certificates for PRTG

There are many different issuers for certificates, and there are different formats in which certificates can be provided. PRTG needs three different correctly named files containing data in the expected encoding and format. This can make manually importing an issued certificate slightly complicated because there are various certificate files that you must retrieve from a certificate authority (CA). So, to ease the installation of a trusted certificate, we provide the freeware tool PRTG Certificate Importer.

The PRTG Certificate Importer automatically combines and converts all files that a CA bundle contains for use with PRTG and stores the certificate files under the correct path on your PRTG core server. At best, you only provide the path to your received CA bundle and let the tool do the rest. We strongly recommend that you use the PRTG Certificate Importer if you want to install a trusted certificate for PRTG.

✂ For more information about this tool and a download link, see the Paessler website: [PRTG Certificate Importer](#)

Manual Certificate Import


Although we recommend that you use PRTG Certificate Importer because it is much more comfortable, you can still import your trusted certificate manually. If you do so, note that PRTG requires three different certificate files in a Privacy-Enhanced Mail (PEM) encoded format, and an unencrypted private key:


- `prtg.crt`: This is the certificate for your PRTG core server. It has to be stored in PEM-encoded format.
- `prtg.key`: This is the private key matching your server certificate. It has to be stored in PEM-encoded format and must not be encrypted. Make sure that you provide this file in [decrypted](#) format. The best way to check this is to open the file in a text editor. If you find a line containing the word "ENCRYPTED", the file still needs to be decrypted before you can use it with PRTG. Decrypt it using an SSL tool (for example, OpenSSL) and your key password.

- root.pem: This is the public root certificate of your certificate's issuer. It has to be stored in PEM-encoded format and must contain all necessary root certificates of your issuer in one file. If there is more than one PEM-encoded root certificate, use a text editor to copy all of them into a single file (the order does not matter).

 PEM-encoded files must not contain Unix line breaks. Only Windows line breaks are supported.

Copy these three files to the \cert subfolder of the [PRTG program directory](#)⁴⁵²⁶ (back up files before) on the PRTG core server and restart the PRTG core server service (see section [PRTG Administration Tool on PRTG Core Server Systems](#)⁴³⁶⁴).

 The PRTG core server service is not able to start if the files are not provided in exactly the expected format.

 If you use remote probes, make sure that you copy the same certificates to the \cert subfolder of the [PRTG program directory](#)⁴⁵²⁶ on the remote probe and restart the PRTG probe service (see section [PRTG Administration Tool on Remote Probe Systems](#)⁴³⁷⁶).

 For detailed instructions and examples, installation descriptions for various certificates (including [Wildcard](#) certificates), as well as links to certificate tools and converters, see section [More](#)⁴⁵³⁸.

More

KNOWLEDGE BASE

How can I establish a secure web interface connection to PRTG?

- <https://kb.paessler.com/en/topic/273>

How can I use a trusted SSL certificate with the PRTG web interface?

- <https://kb.paessler.com/en/topic/283>





PAESSLER TOOLS

PRTG Certificate Importer

- <https://www.paessler.com/tools/certificateimporter>

Advanced Topics

- [Active Directory Integration](#)⁴³⁸⁵
- [Application Programming Interface \(API\) Definition](#)⁴³⁸⁹
- [Filter Rules for xFlow, IPFIX, and Packet Sniffer Sensors](#)⁴⁴⁷⁵
- [Channel Definitions for xFlow, IPFIX, and Packet Sniffer Sensors](#)⁴⁴⁸¹
- [Define IP Address Ranges](#)⁴⁴⁸³
- [Define Lookups](#)⁴⁴⁸⁵
- [Regular Expressions](#)⁴⁴⁹⁷
- [Calculating Percentiles](#)⁴⁴⁹⁹
- [Add Remote Probe](#)⁴⁵⁰¹

















- [Failover Cluster Configuration](#)  4513
- [Data Storage](#)  4526
- [PRTG Housekeeping](#)  4531
- [Using Your Own SSL Certificate](#)  4537

Part 15

Appendix

15 Appendix

Find further information about PRTG and used terms in the following sections.

- [Differences between PRTG on premises and PRTG Hosted Monitor](#) 
- [Glossary](#) 
- [Legal Notices](#) 
- [List of Abbreviations](#) 
- [List of Available Sensor Types](#) 
- [List of Default Ports](#) 
- [List of Icons](#) 
- [List of New Sensors](#) 
- [List of Notification Triggers and Supported Sensors](#) 
- [List of Placeholders for Notifications](#) 
- [List of Sensors by Performance Impact](#) 
- [List of Sensors with IPv6 Support](#) 
- [List of Sensors with Meta-Scan Functionality](#) 
- [List of Sensors without Device Template Capability](#) 
- [List of Standard Lookup Files](#) 
- [Support and Troubleshooting](#) 

15.1 Differences between PRTG on premises and PRTG Hosted Monitor

See below for the differences between the settings and features that PRTG on premises and PRTG Hosted Monitor have to offer.

Licensing, Payment, Infrastructure

Topic	PRTG on premises	PRTG Hosted Monitor
Trial period	30 days	10 days
Freeware	freeware (100 sensors) available	no freeware, smallest edition is PRTG 500
Payment	one-time license fee plus yearly maintenance	monthly fee
PRTG edition size flexibility	upgrade only	upgrade or downgrade
Maximum installation size	unrestricted	10,000 sensors
PRTG update management	done by user	done by Paessler

Features

Feature	PRTG on premises	PRTG Hosted Monitor
Local probe	Yes	No
Hosted probe	No	Yes
Cluster	Yes	No
Freeware (100 sensors)	Yes	No
Remote Desktop Protocol (RDP) access to core server	Yes	No
Historic data purging (manually defined)	Yes	No

Feature	PRTG on premises	PRTG Hosted Monitor
Active Directory integration	Yes	No
License settings via PRTG web interface	Yes	No
Recommended Sensors on local probe/hosted probe	Yes	No
Auto-discovery for groups on local probe/hosted probe	Yes	No
Mini probes	Yes	No
Device tools on local probe/hosted probe	Yes	No
Proxy server settings	Yes	No
System information on local probe/hosted probe	Yes	No
PRTG Administration Tool on PRTG core server	Yes	No
Notification methods:	Yes	No
<ul style="list-style-type: none"> ▪ Add Entry to Event Log ▪ Syslog Message ▪ SNMP Trap Message ▪ Execute Program 		
Re-login request on setup pages after 15 minutes	Yes	No
IPv6 on local probe/hosted probe	Yes	No

Sensors on the Hosted Probe of PRTG Hosted Monitor

You can use the following sensors on the hosted probe of PRTG Hosted Monitor:

Supported Sensors

Amazon CloudWatch Alarm sensor

Amazon CloudWatch EBS sensor

Amazon CloudWatch EC2 sensor

Amazon CloudWatch ElastiCache sensor

Amazon CloudWatch ELB sensor

Amazon CloudWatch RDS sensor

Amazon CloudWatch SNS sensor

Amazon CloudWatch SQS sensor

AWS Cost sensor

Business Process sensor

Cisco IP SLA sensor

Citrix XenServer Host sensor

Citrix XenServer Virtual Machine sensor

Cloud HTTP v2 sensor

Cloud Ping v2 sensor

Cluster Health sensor

Common SaaS sensor

Core Health sensor

Dell EMC Unity Enclosure Health v2 sensor

Dell EMC Unity File System v2 sensor

Dell EMC Unity Storage Capacity v2 sensor

Dell EMC Unity Storage LUN v2 sensor

Supported Sensors

Dell EMC Unity Storage Pool v2 sensor

Dell EMC Unity VMware Datastore v2 sensor

DICOM Bandwidth sensor

DICOM C-ECHO sensor

DICOM Query/Retrieve sensor

DNS sensor

DNS v2 sensor

Docker Container Status sensor

Dropbox sensor

FTP sensor

FTP Server File Count sensor

Google Analytics sensor

Google Drive sensor

HL7 sensor

HTTP sensor

HTTP sensor

HTTP Advanced sensor

HTTP Apache ModStatus PerfStats sensor

HTTP Apache ModStatus Totals sensor

HTTP Content sensor

HTTP Data Advanced sensor

HTTP IoT Push Data Advanced sensor

Supported Sensors

HTTP Transaction sensor

HTTP XML/REST Value sensor

IMAP sensor

IP on DNS Blacklist sensor

LDAP sensor

Microsoft 365 Service Status sensor

Microsoft 365 Service Status Advanced sensor

Microsoft Azure Subscription Cost sensor

Microsoft Azure Virtual Machine sensor

Microsoft OneDrive sensor

Modbus TCP Custom sensor

MQTT Round Trip sensor

MQTT Statistics sensor

MQTT Subscribe Custom sensor

NetApp Aggregate sensor

NetApp I/O sensor

NetApp LIF sensor

NetApp LUN sensor

NetApp NIC sensor

NetApp Physical Disk sensor

NetApp SnapMirror sensor

NetApp System Health sensor

Supported Sensors

NetApp Volume sensor

OPC UA Certificate sensor

OPC UA Custom sensor

OPC UA Server Status sensor

Ping sensor

Ping Jitter sensor

POP3 sensor

Probe Health sensor

RADIUS v2 sensor

RDP (Remote Desktop) sensor

REST Custom sensor

Sensor Factory sensor

SFTP Secure File Transfer Protocol sensor

SIP Options Ping sensor

SMTP&IMAP Round Trip sensor

SMTP&POP3 Round Trip sensor

SNMP APC Hardware sensor

SNMP Buffalo TS System Health sensor

SNMP Cisco ADSL sensor

SNMP Cisco ASA VPN Connections sensor

SNMP Cisco ASA VPN Traffic sensor

SNMP Cisco ASA VPN Users sensor

Supported Sensors

SNMP Cisco CBQoS sensor

SNMP Cisco System Health sensor

SNMP Cisco UCS Blade sensor

SNMP Cisco UCS Chassis sensor

SNMP Cisco UCS Physical Disk sensor

SNMP Cisco UCS System Health sensor

SNMP CPU Load sensor

SNMP Custom sensor

SNMP Custom Advanced sensor

SNMP Custom String sensor

SNMP Custom String Lookup sensor

SNMP Custom Table sensor

SNMP Dell EqualLogic Logical Disk sensor

SNMP Dell EqualLogic Member Health sensor

SNMP Dell EqualLogic Physical Disk sensor

SNMP Dell Hardware sensor

SNMP Dell PowerEdge Physical Disk sensor

SNMP Dell PowerEdge System Health sensor

SNMP Disk Free sensor

SNMP Fujitsu System Health v2 sensor

SNMP Hardware Status sensor

SNMP HP LaserJet Hardware sensor

Supported Sensors

SNMP HPE BladeSystem Blade sensor

SNMP HPE BladeSystem Enclosure System Health sensor

SNMP HPE ProLiant Logical Disk sensor

SNMP HPE ProLiant Memory Controller sensor

SNMP HPE ProLiant Network Interface sensor

SNMP HPE ProLiant Physical Disk sensor

SNMP HPE ProLiant System Health sensor

SNMP IBM System X Logical Disk sensor

SNMP IBM System X Physical Disk sensor

SNMP IBM System X Physical Memory sensor

SNMP IBM System X System Health sensor

SNMP interSeptor Pro Environment sensor

SNMP Juniper NS System Health sensor

SNMP LenovoEMC Physical Disk sensor

SNMP LenovoEMC System Health sensor

SNMP Library sensor

SNMP Linux Disk Free sensor

SNMP Linux Load Average sensor

SNMP Linux Meminfo sensor

SNMP Linux Physical Disk sensor

SNMP Memory sensor

SNMP NetApp Disk Free sensor

Supported Sensors

SNMP NetApp Enclosure sensor

SNMP NetApp I/O sensor

SNMP NetApp License sensor

SNMP NetApp Logical Unit sensor

SNMP NetApp Network Interface sensor

SNMP NetApp System Health sensor

SNMP Nutanix Cluster Health sensor

SNMP Nutanix Hypervisor sensor

SNMP Poseidon Environment sensor

SNMP Printer sensor

SNMP QNAP Logical Disk sensor

SNMP QNAP Physical Disk sensor

SNMP QNAP System Health sensor

SNMP RMON sensor

SNMP SonicWall System Health sensor

SNMP SonicWall VPN Traffic sensor

SNMP Synology Logical Disk sensor

SNMP Synology Physical Disk sensor

SNMP Synology System Health sensor

SNMP System Uptime sensor

SNMP Traffic sensor

SNMP Windows Service sensor

Supported Sensors

SNTP sensor

Soffico Orchestra Channel Health sensor

SSH Disk Free sensor

SSH INodes Free sensor

SSH Load Average sensor

SSH Meminfo sensor

SSH Remote Ping sensor

SSH SAN Enclosure sensor

SSH SAN Logical Disk sensor

SSH SAN Physical Disk sensor

SSH SAN System Health sensor

SSH Script sensor

SSH Script Advanced sensor

SSL Certificate sensor

SSL Security Check sensor

System Health sensor

TFTP sensor

Traceroute Hop Count sensor

Veeam Backup Job Status sensor

VMware Datastore (SOAP) sensor

VMware Host Hardware (WBEM) sensor

VMware Host Hardware Status (SOAP) sensor

Supported Sensors

VMware Host Performance (SOAP) sensor

VMware Virtual Machine (SOAP) sensor

Zoom Service Status sensor

Sensors on a Remote Probe Device

You can use the following sensors only on a [remote probe](#) ⁴⁵⁰³ device.

i For performance reasons, you cannot add these sensors to the hosted probe of a PRTG Hosted Monitor instance.

Supported Sensors

Active Directory Replication Errors sensor

ADO SQL v2 sensor

Dell PowerVault MDi Logical Disk sensor

Dell PowerVault MDi Physical Disk sensor

DHCP sensor

Enterprise Virtual Array sensor

Event Log (Windows API) sensor

Exchange Backup (PowerShell) sensor

Exchange Database DAG (PowerShell) sensor

Exchange Database (PowerShell) sensor

Exchange Mailbox (PowerShell) sensor

Exchange Mail Queue (PowerShell) sensor

Exchange Public Folder (PowerShell) sensor

EXE/Script sensor

Supported Sensors

EXE/Script Advanced sensor

File sensor

File Content sensor

Folder sensor

HTTP Full Web Page sensor

HTTP Push Count sensor

HTTP Push Data sensor

HTTP Push Data Advanced sensor

Hyper-V Cluster Shared Volume Disk Free sensor

Hyper-V Host Server sensor

Hyper-V Virtual Machine sensor

Hyper-V Virtual Network Adapter sensor

Hyper-V Virtual Storage Device sensor

IPFIX sensor

IPFIX (Custom) sensor

IPMI System Health sensor

jFlow v5 sensor

jFlow v5 (Custom) sensor

Microsoft SQL v2 sensor

MySQL v2 sensor

NetFlow v5 sensor

NetFlow v5 (Custom) sensor

Supported Sensors

NetFlow v9 sensor

NetFlow v9 (Custom) sensor

Oracle SQL v2 sensor

Oracle Tablespace sensor

Packet Sniffer sensor

Packet Sniffer (Custom) sensor

PerfCounter Custom sensor

PerfCounter IIS Application Pool sensor

Port sensor

Port Range sensor

PostgreSQL sensor

Python Script Advanced sensor

QoS (Quality of Service) One Way sensor

QoS (Quality of Service) Round Trip sensor

sFlow sensor

sFlow (Custom) sensor

Share Disk Free sensor

SMTP sensor

SNMP Trap Receiver sensor

Syslog Receiver sensor

Windows CPU Load sensor

Windows IIS 6.0 SMTP Received sensor

Supported Sensors

Windows IIS 6.0 SMTP Sent sensor

Windows IIS Application sensor

Windows MSMQ Queue Length sensor

Windows Network Card sensor

Windows Pagefile sensor

Windows Physical Disk I/O sensor

Windows Print Queue sensor

Windows Process sensor

Windows System Uptime sensor

Windows Updates Status (PowerShell) sensor

WMI Battery sensor

WMI Custom sensor

WMI Custom String sensor

WMI Disk Health sensor

WMI Event Log sensor

WMI Exchange Server sensor

WMI Exchange Transport Queue sensor

WMI File sensor

WMI Free Disk Space (Multi Disk) sensor

WMI HDD Health sensor

WMI Logical Disk I/O sensor

WMI Memory sensor

Supported Sensors

WMI Microsoft SQL Server 2005 sensor (Deprecated)

WMI Microsoft SQL Server 2008 sensor

WMI Microsoft SQL Server 2012 sensor

WMI Microsoft SQL Server 2014 sensor

WMI Microsoft SQL Server 2016 sensor

WMI Microsoft SQL Server 2017 sensor

WMI Microsoft SQL Server 2019 sensor

WMI Remote Ping sensor

WMI Security Center sensor

WMI Service sensor

WMI Share sensor

WMI SharePoint Process sensor

WMI Storage Pool sensor

WMI Terminal Services (Windows 2008+) sensor

WMI Terminal Services (Windows XP/Vista/2003) sensor

WMI UTC Time sensor

WMI Vital System Data v2 sensor

WMI Volume sensor

WSUS Statistics sensor






Settings










 These settings are only available in PRTG on premises.

Setting Title	Setting Name
Auto-Update	When a New Version is Available
	Installation Time
	Release Channel
Notification Templates	Add Entry To Event Log
	Send Syslog Message
	Send SNMP Trap
	Execute Program
Core & Probes	Proxy Configuration
	Probe Connection IPs
	Mini Probes
	Mini Probe Port
Administrative Tools for Probes	Restart Local Probe
Scanning Intervals	Available Intervals (definition of individual intervals)
Notification Delivery	SMTP Delivery (everything but sender email and name)
	SMS Delivery
Recommended Sensors Detection	Detection Engine
User Interface (Website)	DNS Name
	Google Analytics Tracking ID
User Interface (Web Server)	IP Address for Web Server
	TCP Port for Web Server
	Web Server Port
	Web Server Security

Setting Title	Setting Name
	Connection Security
	Active IP Address/Port Combination(s)
User Accounts	Login Name
	Password
	Passhash
Administrative Tools for the Core Server	Create Configuration Snapshot
	Write Core Status File
	Clear Caches
	Load Lookups and File Lists
	Recalculate PRTG Graph Data Cache
	Restart PRTG core server service
	Reload Logging Configuration
Advanced Network Analysis	System Information
Scheduled Restart Settings (Local Probe)	Restart Options
	Restart Schedule
	Specify Day
	Specify Hour

Appendix

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15.2 Glossary

This section explains PRTG-specific terminology.

Alarms

The [alarms](#) list shows all [sensors](#) that are in the Down, Down (Partial), Down (Acknowledged), Warning, or Unusual [status](#). The alarms list shows you all irregularities in your network.

Auto-discovery

The [auto-discovery](#) process uses Ping to scan your network for [devices](#) (for [groups](#) only). It assesses the device type for all discovered devices, and it creates [sensor](#) sets that match the discovered device types based on built-in templates or your custom [device templates](#).

Channel

The monitoring data of a [sensor](#) is shown in [channels](#). For example, sensors that measure network traffic have one channel each for traffic [in](#), traffic [out](#), and traffic [total](#). You can set various [triggers](#) for each channel to define [sensor status](#) changes or [notifications](#) based on the monitoring data received.

Cluster

A [cluster](#) consists of two or more [PRTG core servers](#) that work together to form a high availability monitoring system. A cluster consists of a [master node](#) and one or more [failover nodes](#). Every [cluster node](#) can monitor every [device](#) in a network for fail-safe monitoring.

Cluster node

[Cluster nodes](#) make up a cluster. Cluster nodes can be [master nodes](#) or [failover nodes](#).

Cluster probe

When you create or join a [cluster](#), PRTG automatically creates a [cluster probe](#). All [objects](#) that you create on the cluster probe (or below in the [device tree](#)) are monitored by all [cluster nodes](#). Create or move [objects](#) there for fail-safe monitoring. If one cluster node fails, the other cluster nodes continue to monitor all objects. You can add [groups](#) and [devices](#) to the cluster probe. The cluster probe runs as part of the [local probe](#).

Cluster probe device

The [cluster probe device](#) is an internal system device that PRTG automatically adds to the [cluster probe](#). It has access to the [cluster node](#) system and monitors its health parameters using several [sensors](#).

Dashboard

A preconfigured sample [dashboard](#) is available in the Home menu of the PRTG web interface. Dashboards provide an overview of the overall status of your monitoring configuration. You can create custom dashboards using the [Maps](#) feature.

Device

A [device](#) represents a physical or virtual component in your network that is reachable via an IP address. For a clear [device tree](#) structure, you usually create one device for each physical or virtual component that you want to monitor. You can add one or more [sensors](#) to a device.

Device template

If you want to add a specific [device](#) several times, you can create a [device template](#) from a device in the [device tree](#). When you create a device template, PRTG saves information for nearly all [sensors](#) on the device to a template file. You can later use the template file in combination with the [auto-discovery](#) (restrictions apply for a few sensor types).

Device tree

The configuration of PRTG is represented in a hierarchical tree structure called the [device tree](#), which contains all monitoring [objects](#). While building the device tree, you can relate to your network's topology to make your monitoring setup more understandable.

Failover master node

If the [primary master node](#) of a [cluster](#) fails, a [failover node](#) becomes a [failover master node](#). The failover master node takes over the role of the primary master node until it reconnects to the cluster.

Failover node

In a [cluster](#), a [failover node](#) monitors all [sensors](#) on the [cluster probe](#) and it provides monitoring data for the [PRTG core server](#). Additionally, it serves as a backup in case the [master node](#) fails.

Gauge

A [gauge](#) is a type of visual representation of the values of a [channel](#). The gauge needle points to the current value of the channel. Other types of visual representations are [toggles](#) and [switches](#).

Geo Maps

The [Geo Maps](#) feature shows the different locations of your [devices](#) on a geographical map using the location data that you provide in the settings of [probes](#), [groups](#), or devices. The status icons on the geographical maps that represent your devices also show the overall status of a location. This is useful for monitoring distributed networks.

Group

A [group](#) is an organizational unit in the [device tree](#). You can add [devices](#) or subgroups to groups. This way, you can model your physical network's topology within the PRTG configuration. You can use groups to arrange similar objects so that they inherit the same settings.

Hosted probe

The [hosted probe](#) in PRTG Hosted Monitor is like the [local probe](#) in PRTG on premises. When you create a PRTG Hosted Monitor instance, the system automatically adds the hosted probe. The hosted probe runs on the [PRTG core server](#) system that we host for you and it shows the monitoring values of your PRTG Hosted Monitor instance. You can use the hosted probe to monitor [devices](#), servers, and services that are publicly available on the internet like, for example, websites. To monitor your LAN, you need at least one [remote probe](#) installation in your network. The local probe is not available in PRTG Hosted Monitor.

Library

A [library](#) enables you to create additional views of your [device tree](#). These views are updated in the same scanning interval as your device tree and show the same monitoring data, but arranged the way you want. This is useful if you want to display data in different ways, like depending on target groups or a specific use case.

Library node

[Libraries](#) use [library nodes](#) to reference [objects](#) in your monitoring setup. Library nodes can show a subtree of the [device tree](#) or they can show a collection of filtered [sensors](#).

Limit

[Limits](#) let you define thresholds for [channel](#) values. When the value of a channel is above or below the defined limit, the sensor can show the Warning or Down status.

Local probe

When installing PRTG on premises, the [local probe](#) is installed together with the [PRTG core server](#). All [objects](#) created on the local probe, or underneath it in the [device tree](#), are monitored by the local PRTG core server system. You can add [groups](#) and [devices](#) to the local probe. If you use PRTG Hosted Monitor, the [hosted probe](#) replaces the local probe.

Lookup

PRTG uses [lookups](#) for some [sensor](#) types and for some sensors with custom [channels](#). In general, lookups map status values as returned by a [device](#) (usually integers) to more informative expressions in words.

Maps

The [Maps](#) feature lets you present monitoring data the way you want it. An editor is available that lets you create maps (sometimes referred to as [dashboards](#)) directly in your browser. Using maps, you can also make overviews of live data publicly available.

Master node

In a [cluster](#), the [master node](#) controls the settings and cluster management. It also takes over notifications. All changes to the monitoring configuration are made on the master node, which distributes the changes among all other cluster nodes in real time. There are two types of master nodes: [primary master node](#) and [failover master node](#).

Meta-scan

Sensors that use the [meta-scan](#) function, for example SNMP sensors, first look at the according [device](#) to find what they can monitor. This can be tables, object identifiers (OID), or disks, for example. When the meta-scan is finished, the second step of the [Add Sensor](#) dialog shows you the parameters that you can monitor. Some sensors require basic information before they can perform a meta-scan. Provide the requested information, such as credentials, in the appearing dialog box. PRTG then scans and recognizes all parameters that are available for monitoring based on your input.

Mini probe

With a [mini probe](#), you can create small [probes](#) on any [device](#) (not only on Windows systems).

Notification

PRTG uses [notifications](#) to send you alerts whenever it discovers a defined status, such as slow [sensors](#), or when [channels](#) breach threshold values. You can define an unlimited number of notifications. You can use one or more of several notification methods like email, text messaging, push notifications to Android and iOS devices, and more.

Notification trigger

PRTG sends a [notification](#) when a defined event triggers it. These events are known as [notification triggers](#). The following events can trigger notifications: [sensor status](#) changes, [sensor](#) value threshold breaches, speed threshold breaches, volume threshold breaches, and sensor value changes.

Object

All types of items in the [device tree](#) are generally referred to as [objects](#), or [monitoring objects](#). An object can be a [probe](#), a [group](#), a [device](#), or a [sensor](#).

Object hierarchy

All [objects](#) are arranged in a hierarchical order called the [object hierarchy](#). The object hierarchy is used to define common settings for groups of objects.

Object selector

The [object selector](#) lets you browse all [objects](#) in your configuration and lets you select an object. The left-hand side shows the [device tree](#). If you have selected a [device](#), the right-hand side shows the [sensors](#) on the device.

Primary group

Every user has to be a member of a [primary group](#) to make sure there is no user without group membership. Membership in other user groups is optional.

Primary master node

In a [cluster](#), the [primary master node](#) is the [cluster node](#) that is the [master node](#) by configuration.

Probe

A [probe](#) is where the actual monitoring takes place. There are [local probes](#), [cluster probes](#), [remote probes](#), and [hosted probes](#).

Probe device

The [probe device](#) is an internal system device that PRTG automatically adds to the [local probe](#). It has access to the [probe system](#) and monitors its health parameters using several [sensors](#).

Probe system

A [probe system](#) is the system, or Windows computer, that runs a [probe](#). A [remote probe](#), a [cluster probe](#), and the [local probe](#) run on a probe system.

PRTG Administration Tool

The [PRTG Administration Tool](#) is part of your PRTG installation. You can use it to edit the administrative settings of the [local probe](#) and [remote probe](#) installations. You can start the PRTG Administration Tool from the Windows Start menu on the [PRTG core server system](#) or on the [remote probe system](#).

PRTG Application Programming Interface (PRTG API)

The [PRTG API](#) enables you to access monitoring data and to manipulate [objects](#) using HTTP requests, to run your own written [sensors](#) and [notifications](#), and to implement [mini probes](#).

PRTG Cloud

The [PRTG Cloud](#) is used by the [Cloud HTTP sensor](#)^[692], the [Cloud HTTP v2 sensor](#)^[705], the [Cloud Ping sensor](#)^[720], and the [Cloud Ping v2 sensor](#)^[731] to monitor the loading times of a web server via HTTP or the Transmission Control Protocol (TCP) ping times to a parent device from different locations worldwide. PRTG also sends push notifications and securely transmits support bundles to Paessler via the PRTG Cloud.

PRTG core server

The [PRTG core server](#) is the central unit of PRTG. It receives monitoring data from the [probe](#)^[494] and handles reporting and notifications, provides the web server for the user interfaces, and much more. In a [cluster](#)^[450], one PRTG core server is installed on every [cluster node](#)^[450]. The PRTG core server is configured as a Windows service that is permanently run by the Windows system without requiring a user that is logged in.

PRTG core server service

The [PRTG core server service](#) is responsible for running the [PRTG core server](#)^[455]. It is a Windows service that permanently runs on the [PRTG core server system](#)^[455].

PRTG core server system

The [PRTG core server system](#) is the system, or Windows computer, that runs the [PRTG core server](#)^[455].

PRTG data directory

The [PRTG data directory](#) is the directory on the [PRTG core server system](#)^[455] or [remote probe system](#)^[456] where PRTG stores monitoring data, configuration data, and logs.

PRTG Desktop

[PRTG Desktop](#) is an alternative interface that you can use to connect to the [PRTG core server](#)^[455] or a PRTG Hosted Monitor instance to configure your setup, view monitoring results, and keep an eye on your network. It is a cross-platform application for fast access to data and monitoring management.

PRTG Hosted Monitor

[PRTG Hosted Monitor](#) is the PRTG cloud solution where we at Paessler run the [PRTG core server](#)^[455] and [hosted probe](#)^[452] for you. PRTG Hosted Monitor does not require a PRTG core server installation inside your network.

PRTG on premises

[PRTG on premises](#) is a network monitoring application for Windows-based systems with which you can monitor your entire network. PRTG on premises requires a [PRTG core server](#)^[455] installation inside your network.

PRTG probe service

The [PRTG probe service](#) is responsible for running a [probe](#). It is a Windows service that permanently runs on the [probe system](#).

PRTG program directory

The [PRTG program directory](#) is the directory on the [PRTG core server system](#) where PRTG stores all files that are required for it to run.

PRTG web interface

The [PRTG web interface](#) is the Asynchronous JavaScript and XML (AJAX) based web interface of PRTG. It is the default interface for setting up your monitoring.

Recommended Sensors Detection

The [Recommended Sensors Detection](#) feature enables PRTG to analyze [devices](#) in your network and to suggest sensors that are still missing for a comprehensive monitoring setup. If enabled, the analysis runs in the background with low priority if you add a new device, if the last analysis was executed more than 30 days ago, or if you manually start it.

Release channel

PRTG updates are delivered in different [release channels](#). With PRTG on premises, you can choose between maximum stability ([Stable](#)), or most early access to new features ([Canary](#) or [Preview](#)). PRTG Hosted Monitor does not have release channels. Instead, we roll out the latest stable version to PRTG Hosted Monitor instances in stages, so your instance automatically updates to the latest stable version.

Remote probe

A [remote probe](#) is a small piece of software that is installed on a computer, or [remote probe system](#), in the local or remote network. It scans the network and sends monitoring results to the [PRTG core server](#). Once the connection has been established, the remote probe is shown in the [device tree](#). All [objects](#) that you create on the remote probe, or below it in the device tree, are monitored by the remote probe system. You can add [groups](#) and [devices](#) to the remote probe. In a [cluster](#), remote probes can connect to all cluster nodes so you can view monitoring data of a remote probe on all [cluster nodes](#).

Remote probe device

The [remote probe device](#) is an internal system device that PRTG automatically adds to the [remote probe](#). It has access to the [remote probe system](#) and monitors its health parameters using several [sensors](#).

Remote probe system

The [remote probe system](#) is the system, or Windows computer, that runs a [remote probe](#).

Root group

The **root group** is the topmost instance in the [object hierarchy](#) in the device tree. It contains all [objects](#) in your monitoring setup. All objects inherit the settings of the root group by default.

Schedule

You can use [schedules](#) to pause monitoring or notifications for certain periods of time or at certain times. You can also use schedules to define the periods of time that are covered when creating reports.

Sensor

A **sensor** monitors one aspect of a [device](#). For example, one sensor monitors if a device responds to a ping request. A different sensor monitors the traffic of one Ethernet port of a router, and so on. The data of sensors is shown in their respective [channels](#). Each sensor has at least one channel.

Sensor status

The color of a [sensor](#) represents the **sensor status**. There are 8 different sensor states: Down, Down (Partial), Down (Acknowledged), Warning, Unusual, Up, Paused, and Unknown.

Similar Sensors Detection

The **Similar Sensors Detection** feature enables PRTG to analyze [sensor](#) data for similarities. If enabled, the detection runs in the background with low priority. The recommended setting for the analysis depth is to let PRTG automatically decide how many [channels](#) it analyzes.

Switch

A **switch** is a type of visual representation of the values of a [channel](#). Switches represent boolean values when using [lookups](#).

Tickets

Tickets are created by the system or by a user and contain important messages or action steps for the administrator or other users to take. You should view every [ticket](#) to take appropriate action. You can access the list of tickets from the main menu.

Toggle

A **toggle** is a type of visual representation of the values of a [channel](#). Toggles represent bitfields when using [lookups](#).

Toplist

Packet Sniffer and xFlow (NetFlow, jFlow, sFlow, IPFIX) [sensor](#) types can break down traffic by IP address, port, protocol, and other parameters. The results are shown in graphs that are called **Toplists**.

Unusual Detection

The **Unusual Detection** feature can set [sensors](#)⁴⁵⁶⁷ to the Unusual [status](#)⁴⁵⁶⁷ when it detects values that are not typical for the time span in which they are measured. If the detection is enabled, PRTG compares the current average values to the historic monitoring results for this purpose. If the current values show a big difference to the values that are normally retrieved by a sensor, this sensor indicates this with the Unusual status.

xFlow

Paessler designates all kinds of flow protocols as **xFlow**. PRTG supports NetFlow v5, NetFlow v9, IPFIX, sFlow v5, and jFlow v5.

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- [List of Standard Lookup Files](#)⁴⁷²⁴
- [Support and Troubleshooting](#)⁴⁷³⁸

15.3 Legal Notices

See below for a list of libraries and licenses that PRTG uses.

- Build using Indy Internet Direct (<https://www.indyproject.org/>).
This product includes cryptographic software written by Eric Young (eyay@cryptsoft.com)
- Uses the net-SNMP library, see [netsnmp-license.txt](#)
- Uses the DelphiZip library distributed under the GNU LESSER GENERAL PUBLIC LICENSE (<https://www.delphizip.org/>)
- Uses Python under the Python Software Foundation License (<https://docs.python.org/3.7/license.html#psf-license-agreement-for-python-release>)
- Uses NexusMM (<https://www.nexusdb.com/>)
- Delphi Chromium Embedded (<https://code.google.com/archive/p/delphichromiumembedded/>) under the Mozilla Public License 1.1 (MPL 1.1, available from <http://www.mozilla.org/en-US/MPL/1.1/>)
- Soundfiles from <https://www.soundsnap.com/>
- Uses Public Domain regional maps from "The World Factbook 2016-17" Washington, DC: Central Intelligence Agency, 2016 (<https://www.cia.gov/library/publications/the-world-factbook/docs/refmaps.html>)
- Icons from <https://www.androidicons.com/>
- Uses the IPMIUTIL library under the BSD 2.0 license, see [ipmi_bsd-2.0.txt](#)
- Uses PhantomJS, see [phantomjs-license.bsd](#)
- Uses the Npgsql .Net Data Provider for Postgresql library (for license information see [ipmi_bsd-2.0.txt](#))
- Uses NPcap (<https://nmap.org/npcap/oem/redist.html>)
- Uses GeoLite2 data created by MaxMind (<https://www.maxmind.com>)

Code libraries using

- MIT (<https://opensource.org/licenses/MIT>)
- MPL 1.1 (<https://www.mozilla.org/media/MPL/1.1/index.0c5913925d40.txt>)
- MPL 2.0 (<https://www.mozilla.org/media/MPL/2.0/index.815ca599c9df.txt>)
- APL 2.0 (<https://www.apache.org/licenses/LICENSE-2.0.txt>)
- BSD 2.0 license (<https://opensource.org/licenses/BSD-2-Clause>)
- BSD 3.0 license (<https://opensource.org/licenses/BSD-3-Clause>)

Licenses used in previous versions of PRTG:

- FastMM (<https://sourceforge.net/projects/fastmm/>)
- TPLockBox (<https://sourceforge.net/projects/tplockbox/>)
- "wkhtmltopdf" (<https://wkhtmltopdf.org/>) library distributed under the GNU LESSER GENERAL PUBLIC LICENSE (see [wkhtmltopdf_lgpl-3.0.txt](#))
- WinPcap (<https://www.winpcap.org/misc/copyright.htm>)

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Privacy Policy















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Terms and Conditions

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Last manual export: Wednesday, May 26, 2021 5:16:43 AM

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15.4 List of Abbreviations

See below for a list of abbreviations used in this documentation.

A

ACL	access control list
ADO	ActiveX Data Objects
ADSL	asymmetric digital subscriber line
AES	Advanced Encryption Standard
AET	Application Entity Title
AIM	AOL Instant Messenger
AJAX	Asynchronous JavaScript and XML
API	application programming interface
ARP	Address Resolution Protocol
AWS	Amazon Web Services

B

BA	basic authentication
BMC	Baseboard Management Controller

C

CA	certificate authority
CBQoS	Class Based Quality of Service
CDOT	clustered Data ONTAP
CGI	Common Gateway Interface
CIFS	Common Internet File System
CIM	Common Information Model

CLI	command-line interface
CLR	common language runtime
CoS	Class of Service
CRC	cyclic redundancy check
CSS	cascading style sheets
CSV	comma-separated values

D

DAG	Database Availability Group
DBMS	database management system
DC	domain controller
DCS	domain components
DES	Data Encryption Standard
DHCP	Dynamic Host Configuration Protocol
DICOM	Digital Imaging and Communications
DN	distinguished name
DNS	Domain Name System
DoS	denial of service
DSCP	Differentiated Services Code Point
DTU	Database Transaction Unit

E

EBS	Elastic Block Store
EC2	Elastic Compute Cloud
ECC	Elliptic Curve Cryptography

eDTU	elastic Database Transaction Unit
ELB	Elastic Load Balancing
EVA	Enterprise Virtual Array

F

FAT	file allocation table
FCP	Fibre Channel Protocol
FCS	Frame Check Sequence
FIPS	Federal Information Processing Standards
FQDN	fully qualified domain name
FTP	File Transfer Protocol
FTPS	FTP over SSL

G

GID	global ID
GSA	Google Search Appliance
GUID	globally unique identifier

H

HDD	hard disk drive
HL7	Health Level 7

I

IAM	Identity and Access Management
ICMP	Internet Control Message Protocol
ICPIF	Impairment Calculated Planning Impairment Factor

IDE	integrated development environment
iDRAC	Integrated Dell Remote Access Controller
IIS	Microsoft Internet Information Services
IKE	Internet Key Exchange
iLO	HPE Integrated Lights Out
IMAP	Internet Message Access Protocol
IMM	Integrated Management Module
I/O	input/output
IOPS	input/output operations per second
IPC	Industrial PC
IPFIX	Internet Protocol Flow Information Export
IPMI	Intelligent Platform Management Interface
IPsec	Internet Protocol Security
IRC	Internet Relay Chat
iRMC	integrated Remote Management Controller
iSCSI	Internet Small Computer System Interface

J

JSON	JavaScript Object Notation
JWKS	JSON Web Key Set

L

L2L	LAN-to-LAN
LDAP	Lightweight Directory Access Protocol
LIF	logical interface

LUN	logical unit number
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M

MAPI	Messaging Application Programming Interface
MD5	message-digest algorithm 5
MIB	Management Information Base
MOS	mean opinion score
MQTT	Message Queue Telemetry Transport
MSH	message header
MSMQ	Microsoft Message Queuing
MSP	managed service provider
mutex	mutual exclusion
MWL	Modality Worklist

N

NAS	network-attached storage
NAT	network address translation
NFS	network file system
NIC	network interface card
NMAP	Network Mapper
NSA	Network Security Appliance
NTFS	New Technology File System
NTLM	NT LAN Manager

O

OAuth2	Open Authorization 2
ODBC	Open Database Connectivity
OID	object identifier
OLEDB	Object Linking and Embedding, Database
OMSA	OpenManage Server Administrator
ONTAPI	DATA ONTAP API
OSPF	Open Shortest Path First
OU	organizational unit

P

P2P	Peer-to-Peer
PACS	picture archiving and communication system
PAP	Password Authentication Protocol
PCRE	Perl Compatible Regular Expression
PDV	packet delay variation
PEM	Privacy-Enhanced Mail
PMPP	PRTG Mini Probe Protocol
POP3	Post Office Protocol version 3
PRTG	PRTG Network Monitor; Paessler PRTG Enterprise Monitor

Q

QNAP	Quality Network Appliance Provider
QoS	Quality of Service

R

RADIUS	Remote Authentication Dial-In User Service
RAID	redundant array of independent disks
RDP	Remote Desktop Protocol
RDS	Relational Database Service
regex	regular expression
REST	Representational State Transfer
RMON	Remote Monitoring
RPC	remote procedure call
RPM	revolutions per minute
RTT	round-trip time

S

SaaS	software as a service
SAN	storage area network
SASL	Simple Authentication and Security Layer
SCSI	Small Computer System Interface
SCVMM	System Center Virtual Machine Manager
SHA	Secure Hash Algorithm
SID	Oracle System ID
SIP	Session Initiation Protocol
SLA	service level agreement
S.M.A.R.T.	Self-Monitoring, Analysis and Reporting Technology
SMB	server message block

SMTP	Simple Mail Transfer Protocol
SNI	Server Name Identification
SNMP	Simple Network Management Protocol
SNR	signal-to-noise ratio
SNS	Simple Notification Service
SNTP	Simple Network Time Protocol
SOAP	Simple Object Access Protocol
SPA	Single Page Application
SPAN	Switched Port Analyzer
SQL	Structured Query Language
SQS	Simple Queue Service
SRP	Secure Remote Password
SSD	solid-state drive
SSH	Secure Shell
SSL	Secure Sockets Layer
SSO	single sign-on
SVC	switched virtual circuit

T

TCP	Transmission Control Protocol
TFTP	Trivial File Transfer Protocol
TLS	Transport Layer Security
ToS	Type of Service

U

UAC	User Account Control
UCS	Unified Computing System
UDF	User-defined Function
UDP	User Datagram Protocol
UID	Unique Identifier
UNC	Universal Naming Convention
UPnP	Universal Plug and Play
UPS	uninterruptible power supplies
URI	uniform resource identifier
UTC	Coordinated Universal Time
UUID	universally unique identifier

V

vCore	virtual core
VM	virtual machine
VNC	Virtual Network Computing
VoIP	Voice over IP

W















WBEM	Web-based Enterprise Management
WMI	Windows Management Instrumentation
WQL	Windows Management Instrumentation Query Language
WSUS	Windows Server Update Services

WWN	World Wide Name
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X

xFlow	xFlow (NetFlow, jFlow, sFlow, IPFIX)
XML	Extensible Markup Language
XSS	cross-site scripting

Appendix











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15.5 List of Available Sensor Types

This chapter lists all available sensors, arranged both into different categories and in alphabetical order.

i In the [Add a Sensor](#) ³⁶¹ assistant, you have various options to filter for suitable sensors.

Category	Description
All Sensors in Alphabetical Order ⁴⁵⁸²	A list of all sensors, the PRTG version in which they were introduced, and their default tags.
General Sensors ⁴⁵⁹⁹	Sensors that let you monitor the basic parameters of your network
Backup and Replication Monitoring Sensors ⁴⁶⁰⁰	Sensors that let you monitor backup and replication jobs
Bandwidth Monitoring Sensors ⁴⁶⁰⁰	Sensors that let you analyze your network bandwidth
Cloud Service Sensors ⁴⁶⁰²	Sensors that let you get a quick overview of all cloud services
Custom Sensors ⁴⁶⁰³	Sensors that let you enhance the monitoring task far beyond the standard sensor set
Database Server Sensors ⁴⁶⁰⁴	Sensors that let you monitor the most common databases
eHealth Sensors ⁴⁶⁰⁵	Sensors that let you monitor medical equipment
EXE Sensors ⁴⁶⁰⁵	Sensors that let you carry out a wide range of different operations. See the EXE sensors ⁴⁶⁰⁵ in the table for more information.
Hardware Parameter Sensors ⁴⁶⁰⁶	Sensors that let you monitor the status of hardware components
IoT and IIoT Sensors ⁴⁶¹¹	Sensors that let you monitor IoT-capable and IIoT-capable devices
Linux/Unix/macOS Sensors ⁴⁶¹²	Sensors that let you monitor Linux-based networks
Mail Server Sensors ⁴⁶¹³	Sensors that let you monitor different parameters of mail servers

Category	Description
PRTG Internal Sensors 	Sensors that let you monitor internal parameters of PRTG
PRTG Sensor Hub Sensors 	Sensors that let you use scripts, plugins, and add-ons from the PRTG Sensor Hub
SNMP Sensors 	Sensors that let you monitor a wide range of devices via SNMP
Storage and File Server Sensors 	Sensors that let you monitor different parameters of storage and file servers
Various Server Sensors 	Sensors that let you monitor a wide range of server parameters
Virtual Server Sensors 	Sensors that let you monitor your visualized IT infrastructure
VoIP and QoS Sensors 	Sensors that let you monitor the QoS in a network and all VoIP-relevant network parameters
Web Server (HTTP) Sensors 	Sensors that let you monitor server parameters with HTTP
Windows WMI/Performance Counter Sensors 	Sensors that let you monitor Windows systems via WMI and Windows performance counters
More 	Links to further information about sensors and monitoring in the PRTG Manual and the Knowledge Base

All Sensors in Alphabetical Order



















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
















 For more information, see section [Tags](#) .



















Sensor	Introduced in Version	Default Tags
Active Directory Replication Errors sensor 	8.3.0	ptfsensor
ADO SQL v2 sensor 	16.x.24	sqlsensor





















Sensor	Introduced in Version	Default Tags
Amazon CloudWatch Alarm sensor ⁵⁰⁹	16.x.22	cloudwatchsensor alarm
Amazon CloudWatch EBS sensor ⁵²³	15.x.19	cloudwatchsensor ebs
Amazon CloudWatch EC2 sensor ⁵³⁸	15.x.19	cloudwatchsensor ec2
Amazon CloudWatch ElastiCache sensor ⁵⁵⁴	15.x.19	cloudwatchsensor elasticache
Amazon CloudWatch ELB sensor ⁵⁷⁰	15.x.19	cloudwatchsensor elb
Amazon CloudWatch RDS sensor ⁵⁸⁵	15.x.19	cloudwatchsensor rds
Amazon CloudWatch SNS sensor ⁶⁰¹	15.x.19	cloudwatchsensor sns
Amazon CloudWatch SQS sensor ⁶¹⁵	15.x.19	cloudwatchsensor sqs
AWS Cost sensor ⁶³⁰	20.1.56	aws cost awscost
Business Process sensor ⁶⁴⁴	15.x.20	factorysensor businessprocesssensor
Cisco IP SLA sensor ⁶⁵⁸	7	ipslasensor
Citrix XenServer Host sensor ⁶⁷⁰	12.x.1	xenhostsensor
Citrix XenServer Virtual Machine sensor ⁶⁸¹	8.1.0	xenhostsensor
Cloud HTTP sensor ⁶⁹²	14.x.14	httpsensor
Cloud HTTP v2 sensor ⁷⁰⁵	20.3.62	cloud cloudhttpsensor http
Cloud Ping sensor ⁷²⁰	14.x.14	pingsensor
Cloud Ping v2 sensor ⁷³¹	20.3.62	cloud cloudpingsensor ping
Cluster Health sensor ⁷⁴⁴	9.1.0	clusterhealthsensor



















Sensor	Introduced in Version	Default Tags
Common SaaS sensor ^[751]	15.x.19	commonsaas saas
Core Health sensor ^[760]	9.1.0	corehealthsensor
Core Health (Autonomous) sensor ^[769]	21.2.67	corehealthsensor autonomous
Dell EMC Unity Enclosure Health v2 sensor ^[778]	20.4.64	dellemc dellemcstorage dellemcenclosure restsensor
Dell EMC Unity File System v2 sensor ^[790]	20.3.62	dellemc dellemcfilesystem dellemcstorage emcfilesystemsensor emcsensor restsensor
Dell EMC Unity Storage Capacity v2 sensor ^[802]	20.3.62	dellemc dellemccapacity dellemcstorage emccapacitiesensor emcsensor restsensor
Dell EMC Unity Storage LUN v2 sensor ^[813]	20.3.61	dellemc dellemclun dellemcstorage emclunsensor emcsensor restsensor
Dell EMC Unity Storage Pool v2 sensor ^[825]	20.3.62	dellemc dellemcpool dellemcstorage emcpoolsensor emcsensor restsensor
Dell EMC Unity VMware Datastore v2 sensor ^[838]	20.4.63	dellemc dellemcdatastore dellemcvmware emcsensor restsensor
Dell PowerVault MDi Logical Disk sensor ^[850]	12.x.1	powervault
Dell PowerVault MDi Physical Disk sensor ^[861]	14.x.13	powervault
DHCP sensor ^[873]	8.2.0	dhcpsensor
DICOM Bandwidth sensor ^[885]	18.1.38	dicom bandwidth
DICOM C-ECHO sensor ^[896]	18.1.38	dicom cecho ping
DICOM Query/Retrieve sensor ^[907]	18.1.38	dicom query retrieve



















Sensor	Introduced in Version	Default Tags
DNS sensor 	7	dnssensor
DNS v2 sensor 	20.2.59	dns dnssensor
Docker Container Status sensor 	16.x.22	docker dockercontainer
Dropbox sensor 	15.x.19	dropboxsensor cloudstorage
Enterprise Virtual Array sensor 	13.x.6	eva
Event Log (Windows API) sensor 	7	wmiapieventlogsensor
Exchange Backup (PowerShell) sensor 	13.x.5	exchange powershell backup
Exchange Database (PowerShell) sensor 	13.x.5	exchange powershell database
Exchange Database DAG (PowerShell) sensor 	15.x.18	exchange powershell database dag
Exchange Mail Queue (PowerShell) sensor 	13.x.5	exchange powershell mailqueue
Exchange Mailbox (PowerShell) sensor 	13.x.5	exchange powershell mailbox
Exchange Public Folder (PowerShell) sensor 	13.x.5	exchange powershell publicfolder
EXE/Script sensor 	7	exesensor
EXE/Script Advanced sensor 	7	xmlxesensor
File sensor 	7	filesensor
File Content sensor 	7	filesensor
Folder sensor 	7	foldersensor
FTP sensor 	7	ftpsensor
















Sensor	Introduced in Version	Default Tags
FTP Server File Count sensor 	8.3.0	ptfsensor
Google Analytics sensor 	15.x19	googleanalytics
Google Drive sensor 	15.x.19	googledrive cloudstorage
HL7 sensor 	18.1.38	dicom hl7
HTTP sensor 	7	httsensor
HTTP Advanced sensor 	7	httsensor
HTTP Apache ModStatus PerfStats sensor 	12.x.3	httsensor httpapachemodstatusperfstats ensor apache
HTTP Apache ModStatus Totals sensor 	12.x.3	httsensor httpapachemodstatustotalssen sor apache
HTTP Content sensor 	7	httsensor
HTTP Data Advanced sensor 	15.x.16	httsensor
HTTP Full Web Page sensor 	7	httpfullsensor
HTTP IoT Push Data Advanced sensor 	18.3.43	pushsensor pushdata httppushsensor iot sigfox
HTTP Push Count sensor 	13.4.8	pushsensor pushcount httppushsensor
HTTP Push Data sensor 	14.1.9	pushsensor pushdata httppushsensor
HTTP Push Data Advanced sensor 	14.1.10	pushsensor pushdata httppushsensor
HTTP Transaction sensor 	7	httptransactionsensor
HTTP XML/REST Value sensor 	8.3.0	ptfsensor
Hyper-V Cluster Shared Volume Disk Free sensor 	12.3.4	hyperv powershell diskfree
















Sensor	Introduced in Version	Default Tags
Hyper-V Host Server sensor 	7	hypervserversensor
Hyper-V Virtual Machine sensor 	7	wmihypervsensor
Hyper-V Virtual Network Adapter sensor 	9.1.0	wmihypervirtualnetworkadapter
Hyper-V Virtual Storage Device sensor 	12.4.4	wmihypervirtualstoragesensor
IMAP sensor 	7	imapsensor mailsensor
IP on DNS Blacklist sensor 	8.3.0	ptfsensor
IPFIX sensor 	13.x.7	bandwidthsensor netflowsensor
IPFIX (Custom) sensor 	13.x.7	bandwidthsensor netflowsensor
IPMI System Health sensor 	14.x.11	ipmi
jFlow v5 sensor 	8.2.0	bandwidthsensor jflowsensor
jFlow v5 (Custom) sensor 	8.2.0	bandwidthsensor jflowsensor
LDAP sensor 	8.1.0	ldapsensor
Microsoft 365 Service Status sensor 	20.3.61	microsoft365 microsoft365sensor
Microsoft 365 Service Status Advanced sensor 	20.3.61	microsoft365 microsoft365sensor
Microsoft Azure Subscription Cost sensor 	20.4.64	microsoftazure microsoftazuresubscriptioncost azure
Microsoft Azure Virtual Machine sensor 	20.4.63	microsoftazure microsoftazurevirtualmachine azure
Microsoft OneDrive sensor 	15.x.19	msonedrivesensor cloudstorage
Microsoft SQL v2 sensor 	14.x.12	sqlsensor
















Sensor	Introduced in Version	Default Tags
Modbus TCP Custom sensor 	20.4.63	modbus
MQTT Round Trip sensor 	20.2.59	mqtt roundtrip mqttroundtrip
MQTT Statistics sensor 	20.2.59	mqtt mqttstatistics
MQTT Subscribe Custom sensor 	20.3.61	mqtt mqttsubscribecustom
MySQL v2 sensor 	14.x.12	sqlsensor
NetApp Aggregate sensor 	17.3.33	netapp cdot ontap soap
NetApp I/O sensor 	17.3.33	netapp cdot ontap soap
NetApp LIF sensor 	17.3.33	netapp cdot ontap soap
NetApp LUN sensor 	17.3.33	netapp cdot ontap soap
NetApp NIC sensor 	17.3.33	netapp cdot ontap soap
NetApp Physical Disk sensor  	17.3.33	netapp cdot ontap soap
NetApp SnapMirror sensor 	17.4.35	netapp cdot ontap soap
NetApp System Health sensor 	17.3.33	netapp cdot ontap soap
NetApp Volume sensor 	17.3.33	netapp cdot ontap soap
NetFlow v5 sensor 	7	bandwidthsensor netflowsensor
NetFlow v5 (Custom) sensor 	7	bandwidthsensor netflowsensor
NetFlow v9 sensor 	7	bandwidthsensor netflowsensor
NetFlow v9 (Custom) sensor 	7	bandwidthsensor netflowsensor
OPC UA Certificate sensor 	21.1.66	opcua opcuacertificate certificate
OPC UA Custom sensor 	21.1.66	opcua opcuacustom

















Sensor	Introduced in Version	Default Tags
OPC UA Server Status sensor 	20.4.63	opcua opcuaserverstatus serverstatus
Oracle SQL v2 sensor 	14.x.13	sqlsensor
Oracle Tablespace sensor 	15.x.18	sqlsensor
Packet Sniffer sensor 	7	bandwidthsensor sniffersensor
Packet Sniffer (Custom) sensor 	7	bandwidthsensor sniffersensor
PerfCounter Custom sensor 	12.x.3	performancecounter performancecountercustom
PerfCounter IIS Application Pool sensor 	12.x.6	performancecounter pciisappool
Ping sensor 	7	pingsensor
Ping Jitter sensor 	8.3.0	ptfsensor
POP3 sensor 	7	pop3sensor mailsensor
Port sensor 	7	portsensor
Port Range sensor 	12.x.4	portrangesensor
PostgreSQL sensor 	14.x.12	sqlsensor
Probe Health sensor 	9.1.0	probehealthsensor
Python Script Advanced sensor 	15.x.19	pythonxml python xml json script
QoS (Quality of Service) One Way sensor 	7	qossensor
QoS (Quality of Service) Round Trip sensor 	9.1.0	qossensor
RADIUS v2 sensor 	14.x.13	radiussensor

















Sensor	Introduced in Version	Default Tags
RDP (Remote Desktop) sensor 	7	rdpsensor
REST Custom sensor 	17.3.33	restcustomsensor restsensor
Sensor Factory sensor 	7	factorysensor
sFlow sensor 	7	bandwidthsensor sflowsensor
sFlow (Custom) sensor 	7	bandwidthsensor sflowsensor
SFTP Secure File Transfer Protocol sensor 	12.x.6	sftpsensor
Share Disk Free sensor 	7	diskspacesensor smbdiskspacesensor
SIP Options Ping sensor 	12.x.1	pingsensor sipsensor
SMTP sensor 	7	smtpsensor mailsensor
SMTP&IMAP Round Trip sensor 	7	imapsensor roundtrip mailsensor
SMTP&POP3 Round Trip sensor 	7	pop3sensor roundtrip mailsensor
SNMP APC Hardware sensor 	9.1.0	apcups
SNMP Buffalo TS System Health sensor 	17.1.29	snmpbuffalots buffalots systemhealth
SNMP Cisco ADSL sensor 	12.x.1	snmpcisoadsl
SNMP Cisco ASA VPN Connections sensor 	12.x.1	snmpcisocoasavpnsensor snmpcisocoasavpnconnections sensor
SNMP Cisco ASA VPN Traffic sensor 	12.x.1	snmpcisocoasavpnsensor snmpcisocoasavpntrafficsensor
SNMP Cisco ASA VPN Users sensor 	12.x.5	snmpcisocoasavpnsensor snmpcisocoasavpntrafficsensor
SNMP Cisco CBQoS sensor 	13.x.5	cbqossensor


















Sensor	Introduced in Version	Default Tags
SNMP Cisco System Health sensor 	12.x.4	snmpciscosystemhealthsensor systemhealth
SNMP Cisco UCS Blade sensor 	14.x.14	snmpciscosystemhealthsensor systemhealth ucssystemhealth ucs blade
SNMP Cisco UCS Chassis sensor 	13.x.8	snmpciscosystemhealthsensor systemhealth ucssystemhealth ucs chassis
SNMP Cisco UCS Physical Disk sensor 	14.1.10	snmpciscophysicaldisksensor ucs snmp
SNMP Cisco UCS System Health sensor 	13.x.8	snmpciscosystemhealthsensor systemhealth ucssystemhealth ucs
SNMP CPU Load sensor 	12.x.4	snmp cpu cpuloadsensor
SNMP Custom sensor 	7	snmpcustomsensor
SNMP Custom Advanced sensor 	15.x.18	snmpcustomsensor snmpcustomadvanced
SNMP Custom String sensor 	9.1.0	snmpcustomstringsensor
SNMP Custom String Lookup sensor 	14.x.14	snmpcustomsensor
SNMP Custom Table sensor 	15.x.18	snmpcustomsensor snmpcustomtable
SNMP Dell EqualLogic Logical Disk sensor 	16.x.24	dellequallogic snmpdell dell
SNMP Dell EqualLogic Member Health sensor 	16.x.24	dellequallogic snmpdell dell
SNMP Dell EqualLogic Physical Disk sensor 	16.x.24	dellequallogic snmpdell dell
SNMP Dell Hardware sensor 	7	dell


















Sensor	Introduced in Version	Default Tags
SNMP Dell PowerEdge Physical Disk sensor 	12.x.4	snmpdellphysicaldisksensor physicaldisk snmpdell dell
SNMP Dell PowerEdge System Health sensor 	12.x.4	snmpdellsystemhealthsensor systemhealth snmpdell dell
SNMP Disk Free sensor 	12.x.4	snmpdiskfreesensor diskspacesensor diskfree snmp
SNMP Fujitsu System Health v2 sensor 	19.x.53	snmpfujitsusystemhealthsensor snmp systemhealth fujitsu irmc
SNMP Hardware Status sensor 	13.x.5	hardwarestatus
SNMP HP LaserJet Hardware sensor 	9.1.0	hplaserjet
SNMP HPE BladeSystem Blade sensor 	15.x.18	snmp hpe blade bladesystem
SNMP HPE BladeSystem Enclosure System Health sensor 	15.x.18	snmp hpe blade bladesystem systemhealth health
SNMP HPE ProLiant Logical Disk sensor 	12.x.6	snmphpelogicaldisksensor logicaldisk snmp hpe
SNMP HPE ProLiant Memory Controller sensor 	12.x.6	snmp hpe memorycontrollersens or memorycontroller snmp hpe hpe
SNMP HPE ProLiant Network Interface sensor 	12.x.4	snmp hpe networkinterfacesenso r snmp hpe
SNMP HPE ProLiant Physical Disk sensor 	12.x.6	snmp hpe physicaldisksensor physicaldisk snmp hpe
SNMP HPE ProLiant System Health sensor 	12.x.4	snmp hpe systemhealthsensor systemhealth snmp hpe
SNMP IBM System X Logical Disk sensor 	13.x.4	snmp ibm logicaldisksensor logicaldisk snmp ibm
SNMP IBM System X Physical Disk sensor 	13.x.4	snmp ibm physicaldisksensor physicaldisk snmp ibm

















Sensor	Introduced in Version	Default Tags
SNMP IBM System X Physical Memory sensor 	13.x.4	snmpibmphysicalmemorysensor memorycontroller snmpibm ibm
SNMP IBM System X System Health sensor 	13.x.4	snmpibmsystemhealthsensor systemhealth
SNMP interSeptor Pro Environment sensor 	14.1.10	interseptor environment
SNMP Juniper NS System Health sensor 	15.2.16	snmpjuniper systemhealth
SNMP LenovoEMC Physical Disk sensor 	13.x.8	snmplenovoemc lenovoemc physicaldisk
SNMP LenovoEMC System Health sensor 	13.x.8	snmplenovoemc lenovoemc systemhealth
SNMP Library sensor 	7	snmplibrarysensor
SNMP Linux Disk Free sensor 	8.1.0	snmpdiskfreesensor diskspacesensor
SNMP Linux Load Average sensor 	8.1.0	snmploadsensor
SNMP Linux Meminfo sensor 	8.1.0	snmpmeminfosensor memorysensor
SNMP Linux Physical Disk sensor 	13.x.5	snmpphysicaldisksensor physicaldisk
SNMP Memory sensor 	12.x.4	snmpmemorysensor memory memorysensor snmp
SNMP NetApp Disk Free sensor 	12.x.3	snmpdiskfreesensor snmpnetappdiskfreesensor snmpnetapp netapp
SNMP NetApp Enclosure sensor 	12.x.4	snmpnetappenclosuresensor snmpnetapp netapp
SNMP NetApp I/O sensor 	12.x.3	snmpnetappiosensor snmpnetapp netapp










Sensor	Introduced in Version	Default Tags
SNMP NetApp License sensor 	12.x.4	snmpnetapplicensesensor snmpnetapp netapp
SNMP NetApp Logical Unit sensor  	13.x.7	snmpdiskfreesensor snmpnetappdiskfreesensor snmpnetapp netapp
SNMP NetApp Network Interface sensor 	12.x.3	snmpnetappnetworkinterface sensor snmpnetapp netapp
SNMP NetApp System Health sensor 	12.x.3	snmpnetappsystemhealthsen sor snmpnetapp netapp
SNMP Nutanix Cluster Health sensor 	20.1.55	snmpnutanixclusterhealthsen sor snmp nutanix
SNMP Nutanix Hypervisor sensor 	20.1.55	snmpnutanixhypervisorsen sor snmp nutanix
SNMP Poseidon Environment sensor 	13.x.5	apcups
SNMP Printer sensor 	14.x.11	snmp printer
SNMP QNAP Logical Disk sensor 	13.x.4	snmpqnap qnap logicaldisk
SNMP QNAP Physical Disk sensor 	13.x.4	snmpqnap qnap physicaldisk
SNMP QNAP System Health sensor 	13.x.4	snmpqnap qnap systemhealth
SNMP RMON sensor 	12.x.1	snmprmon
SNMP SonicWall System Health sensor 	13.x.5	snmpsonicwallsystemhealthsen sor systemhealth
SNMP SonicWall VPN Traffic sensor 	13.x.6	snmpsonicwallvpntrafficsen sor traffic
SNMP Synology Logical Disk sensor 	13.x.4	snmpsynology synology logicaldisk

Sensor	Introduced in Version	Default Tags
SNMP Synology Physical Disk sensor 	13.x.4	snmpsynology synology physicaldisk
SNMP Synology System Health sensor 	13.x.4	snmpsynology synology systemhealth
SNMP System Uptime sensor 	7	snmpuptimesensor
SNMP Traffic sensor 	7	bandwidthsensor snmptrafficsensor
SNMP Trap Receiver sensor 	7	snmptrapsensor
SNMP Windows Service sensor 	13.x.8	snmpservicesensor servicesensor
SNTP sensor 	8.1.0	sntpensor
Soffico Orchestra Channel Health sensor 	20.4.63	orchestra orchestrachannelhealth soffico
SSH Disk Free sensor 	8.1.0	sshdiskfreesensor diskfreesensor
SSH INodes Free sensor 	8.1.1	sshinodesfreesensor
SSH Load Average sensor 	8.1.0	sshloadavgsensor
SSH Meminfo sensor 	8.1.0	sshmeminfosensor memorysensor
SSH Remote Ping sensor 	12.x.1	sshremotepingsensor pingsensor remotepingsensor
SSH SAN Enclosure sensor 	14.x.12	sshсанenclosure sshsan enclosure
SSH SAN Logical Disk sensor 	14.1.9	sshсанlogicaldisk sshsan logicaldisk
SSH SAN Physical Disk sensor 	14.1.9	sshсанphysicaldisk sshsan physicaldisk

Sensor	Introduced in Version	Default Tags
SSH SAN System Health sensor 	14.1.9	sshsansystemhealth sshsan systemhealth
SSH Script sensor 	12.x.1	sshscript
SSH Script Advanced sensor 	12.x.6	sshscript
SSL Certificate sensor 	15.x.19	sslcertificate ssl certificate
SSL Security Check sensor 	14.x.12	sslsensor
Syslog Receiver sensor 	7	syslogsensor
System Health sensor 	9.1.0	systemhealthsensor
TFTP sensor 	8.1.0	trivialftpsensor
Traceroute Hop Count sensor 	8.3.0	ptfsensor
Veeam Backup Job Status sensor 	20.4.64	veeam veeambackup veeamenterprisemanager
VMware Datastore (SOAP) sensor 	15.x.19	vmwaredatastoreextensensor
VMware Host Hardware (WBEM) sensor 	8.1.0	esxshealthsensor
VMware Host Hardware Status (SOAP) sensor 	12.x.1	esxserverhosthealthsensor
VMware Host Performance (SOAP) sensor 	12.x.1	esxserverhostsensor
VMware Virtual Machine (SOAP) sensor 	7	esxservervmsensor
Windows CPU Load sensor 	7	cpuloadsensor wmicpuloadsensor
Windows IIS 6.0 SMTP Received sensor 	8.1.0	wmiissmtreceivedsensor







Sensor	Introduced in Version	Default Tags
Windows IIS 6.0 SMTP Sent sensor 	8.1.0	wmiiissmtpsentsensor
Windows IIS Application sensor 	12.x.1	wmiiis
Windows MSMQ Queue Length sensor 	8.3.0	ptfsensor
Windows Network Card sensor 	7	bandwidthsensor wmibandwidthsensor
Windows Pagefile sensor 	12.x.4	pagefilesensor wmpagefilesensor
Windows Physical Disk I/O sensor 	16.x.24	wmiphysicaldisksensor
Windows Print Queue sensor 	8.3.0	ptfsensor
Windows Process sensor 	7	wmiprocesssensor
Windows System Uptime sensor 	8.1.0	wmiuptimesensor
Windows Updates Status (PowerShell) sensor 	13.x.6	windowsupdatesstatus
WMI Battery sensor 	19.x.52	batterysensor wmibatterysensor
WMI Custom sensor 	7	wmicustomsensor
WMI Custom String sensor 	12.x.4	wmicustomsensor
WMI Disk Health sensor 	19.4.54	wmidiskhealthsensor diskhealthsensor
WMI Event Log sensor 	7	wmieventlogsensor
WMI Exchange Server sensor 	9	wmiexchangeserversensor
WMI Exchange Transport Queue sensor 	12.x.1	wmiexchangeservertransportqu euesensor

Sensor	Introduced in Version	Default Tags
WMI File sensor 	7	wmifilesensor
WMI Free Disk Space (Multi Disk) sensor 	7	diskspacesensor wmidiskspacesensor
WMI HDD Health sensor 	12.x.1	smartsensor
WMI Logical Disk I/O sensor 	16.x.24	wmilogicalsensor
WMI Memory sensor 	7	memorysensor wmimemorysensor
WMI Microsoft SQL Server 2005 sensor 	8.1.0	wmisqlserversensor
WMI Microsoft SQL Server 2008 sensor 	8.1.0	wmisqlserversensor wmisqlserversensor2008
WMI Microsoft SQL Server 2012 sensor 	12.x.6	wmisqlserversensor wmisqlserversensor2012
WMI Microsoft SQL Server 2014 sensor 	14.x.13	wmisqlserversensor wmisqlserversensor2014
WMI Microsoft SQL Server 2016 sensor 	16.x.26	wmisqlserversensor wmisqlserversensor2016
WMI Microsoft SQL Server 2017 sensor 	18.x.42	wmisqlserversensor wmisqlserversensor2017
WMI Microsoft SQL Server 2019 sensor 	20.3.62	wmisqlserversensor wmisqlserversensor2019
WMI Remote Ping sensor 	12.x.1	pingsensor wmisensor wmipingsensor remotepingsensor
WMI Security Center sensor 	9	WMISecurityCenter
WMI Service sensor 	7	wmiservicesensor servicesensor
WMI Share sensor 	8.1.0	wmisharesensor






Sensor	Introduced in Version	Default Tags
WMI SharePoint Process sensor 	12.x.1	wmiprocesssensor wmisharepointprocesssensor
WMI Storage Pool sensor 	19.4.54	wmistoragepoolsensor storagepoolsensor
WMI Terminal Services (Windows 2008+) sensor 	8.1.0	wmiterminalservicessensor
WMI Terminal Services (Windows XP/Vista/2003) sensor 	8.1.0	wmiterminalservicessensor
WMI UTC Time sensor 	9.2.0	wmiutctimesensor
WMI Vital System Data v2 sensor 	7	wmiitalsystemdatasensor
WMI Volume sensor 	7	wmivolumesensor diskspacesensor
WSUS Statistics sensor 	9.1.0	ptfsensor
Zoom Service Status sensor 	20.3.61	zoom zoomsensor

General Sensors


Sensor	What It Monitors
Cloud HTTP sensor 	Response time and response code of the target server
Cloud HTTP v2 sensor 	Response time and response code of the target server
Cloud Ping sensor 	Response times of the target server
Cloud Ping v2 sensor 	Response time of the target server using TCP ping
HTTP sensor 	Loading time of a web page or element
Ping sensor 	Ping time and packet loss


















Sensor	What It Monitors
Port sensor  2041	Time until a request to a port is accepted
Port Range sensor  2054	A network service by connecting to various TCP/IP ports
SNMP Traffic sensor  3094	Traffic on a device via SNMP
SSL Certificate sensor  3302	Certificate of an SSL/TLS connection
SSL Security Check sensor  3315	SSL/TLS connectivity to the port of a device
Windows Network Card sensor  3499	Bandwidth usage and traffic of a network interface via WMI or Windows performance counters

Backup and Replication Monitoring Sensors

Sensor	What It Monitors
Active Directory Replication Errors sensor  4777	A Windows DC for replication errors
File sensor  1092	Changes to file content and file time stamp
Folder sensor  1116	A folder using SMB
IMAP sensor  1430	An email server using IMAP
Veeam Backup Job Status sensor  3369	Status of all backup job runs on the Veeam Backup Enterprise Manager in the last 24 hours

Bandwidth Monitoring Sensors


















Sensor	What It Monitors
IPFIX sensor  1458	Traffic data from an IPFIX-compatible device
IPFIX (Custom) sensor  1475	Traffic data from an IPFIX-compatible device
jFlow v5 sensor  1504	Traffic data from a jFlow v5 compatible device
jFlow v5 (Custom) sensor  1521	Traffic data from a jFlow v5 compatible device





Sensor	What It Monitors
NetFlow v5 sensor 	Traffic data from a NetFlow v5 compatible device
NetFlow v5 (Custom) sensor 	Traffic data from a NetFlow v5 compatible device
NetFlow v9 sensor 	Traffic data from a NetFlow v9 compatible device
NetFlow v9 (Custom) sensor 	Traffic data from a NetFlow v9 compatible device
Packet Sniffer sensor 	Headers of data packets that pass a local network card
Packet Sniffer (Custom) sensor 	Headers of data packets that pass a local network card
sFlow sensor 	Traffic data from an sFlow v5 compatible device
sFlow (Custom) sensor 	Traffic data from an sFlow v5 compatible device
SNMP Cisco ADSL sensor 	ADSL statistics of a Cisco router
SNMP Cisco ASA VPN Traffic sensor 	Traffic of an IPsec VPN connection on a Cisco Adaptive Security Appliance
SNMP HPE ProLiant Network Interface sensor 	A network interface in an HPE server via SNMP
SNMP Library sensor 	A device via SNMP
SNMP NetApp Network Interface sensor 	A network card of a NetApp storage system
SNMP RMON sensor 	Traffic on a device using the RMON standard
SNMP SonicWall VPN Traffic sensor 	Traffic of an IPsec VPN on a SonicWall NSA via SNMP
SNMP Traffic sensor 	Traffic on a device
Windows Network Card sensor 	Bandwidth usage and traffic of a network interface

Cloud Services Sensors














Sensor	What It Monitors
Amazon CloudWatch Alarm sensor  509	Status of an Amazon CloudWatch alarm
Amazon CloudWatch EBS sensor  523	Performance of the Amazon Cloud service EBS
Amazon CloudWatch EC2 sensor  538	Performance of the Amazon Cloud service EC2
Amazon CloudWatch ElastiCache sensor  554	Performance of the Amazon Cloud service ElastiCache
Amazon CloudWatch ELB sensor  570	Performance of the Amazon Cloud service ELB
Amazon CloudWatch RDS sensor  585	Performance of the Amazon Cloud service RDS
Amazon CloudWatch SNS sensor  601	Performance of the Amazon Cloud service SNS
Amazon CloudWatch SQS sensor  615	Performance of the Amazon Cloud service SQS
AWS Cost sensor  630	Cost of an AWS account by reading its data from the AWS Cost Explorer API
Common SaaS sensor  751	Availability of several SaaS providers
Dropbox sensor  956	A Dropbox account using the Dropbox API and OAuth2
Google Analytics sensor  1153	Several metrics from a Google Analytics account using the Google API and OAuth2
Google Drive sensor  1168	A Google Drive account using the Google API and OAuth2
Microsoft 365 Service Status sensor  1546	Overall status of all services of a Microsoft 365 subscription
Microsoft 365 Service Status Advanced sensor  1557	Detailed status of all services of a Microsoft 365 subscription
Microsoft Azure Subscription Cost sensor  1569	Cost in a Microsoft Azure subscription
Microsoft OneDrive sensor  1595	A Microsoft OneDrive Personal account using the OneDrive API and OAuth2
Zoom Service Status sensor  3959	Availability of global Zoom services

Custom Sensors






Sensor	What It Monitors
Business Process sensor  644	A summarized status of entire business processes while monitoring several process components
EXE/Script sensor  1063	One value returned by the executable file or script (in one channel only) and the execution time
EXE/Script Advanced sensor  1077	Values returned by the executable file or script in multiple channels
IPFIX (Custom) sensor  1475	Traffic by type according to your needs
jFlow v5 (Custom) sensor  1521	Traffic by type according to your needs
NetFlow v5 (Custom) sensor  1841	Traffic by type according to your needs
NetFlow v9 (Custom) sensor  1873	Traffic by type according to your needs
Packet Sniffer (Custom) sensor  1972	Traffic by type according to your needs
Python Script Advanced sensor  2092	Values returned by the Python script in multiple channels
REST Custom sensor  2151	Values returned by a REST API in multiple channels
Sensor Factory sensor  2178	Entire business processes that involve several components
sFlow (Custom) sensor  2213	Traffic by type according to your needs
SNMP Custom sensor  2453	A single parameter that is returned by a specific OID via SNMP
SNMP Custom Advanced sensor  2464	Numeric values returned for OIDs via SNMP
SNMP Custom String sensor  2475	A string returned by a specific OID via SNMP
SNMP Custom String Lookup sensor  2489	A string returned by a specific OID via SNMP directly mapped to a sensor status
SNMP Custom Table sensor  2500	Entries from a table that is provided via SNMP

Sensor	What It Monitors
SSH Script sensor 	One value returned by the executable file or script (in one channel only) and the execution time
SSH Script Advanced sensor 	Values returned by the script in multiple channels and the execution time
WMI Custom sensor 	Retrieved value of a custom query via WMI
WMI Custom String sensor 	Retrieved string value in the sensor message and the response time









Database Server Sensors















Sensor	What It Monitors
ADO SQL v2 sensor 	A database using an ADO connection
Microsoft SQL v2 sensor 	A database on a Microsoft SQL server
MySQL v2 sensor 	A database on a MySQL server
Oracle SQL v2 sensor 	A database on an Oracle server
Oracle Tablespace sensor 	A tablespace on an Oracle server
PostgreSQL sensor 	A database on a PostgreSQL server
WMI Microsoft SQL Server 2005 sensor 	Performance of a Microsoft SQL Server via WMI
WMI Microsoft SQL Server 2008 sensor 	Performance of a Microsoft SQL Server via WMI
WMI Microsoft SQL Server 2012 sensor 	Performance of a Microsoft SQL Server via WMI
WMI Microsoft SQL Server 2014 sensor 	Performance of a Microsoft SQL Server via WMI
WMI Microsoft SQL Server 2016 sensor 	Performance of a Microsoft SQL Server via WMI
WMI Microsoft SQL Server 2017 sensor 	Performance of a Microsoft SQL Server via WMI
WMI Microsoft SQL Server 2019 sensor 	Performance of a Microsoft SQL Server via WMI






eHealth Sensors

Sensor	What It Monitors
DICOM Bandwidth sensor 	Bandwidth usage of a C-STORE request to a DICOM-capable device
DICOM C-ECHO sensor 	Availability of DICOM-capable systems and devices by sending C-ECHO requests to the target system
DICOM Query/Retrieve sensor 	C-FIND capability of DICOM-capable systems and devices
HL7 sensor 	Availability of HL7 interfaces
Soffico Orchestra Channel Health sensor 	State and overall number of successful or failed channel calls

EXE Sensors


















Sensor	What It Monitors
Active Directory Replication Errors sensor 	A Windows DC for replication errors
ADO SQL v2 sensor 	A database using an ADO connection
Citrix XenServer Host sensor 	A Xen host server via HTTP
Citrix XenServer Virtual Machine sensor 	A VM on a Citrix XenServer via HTTP
Dell PowerVault MDi Logical Disk sensor 	A virtual disk on a Dell PowerVault MD3000i, MD3420, MD3620i, MD3000f, MD3620f, or MD3820i
Dell PowerVault MDi Physical Disk sensor 	A physical disk on a Dell PowerVault MD3000i, MD3420, MD3620i, MD3000f, or MD3620f
DICOM Bandwidth sensor 	Bandwidth usage of a C-STORE request to a DICOM-capable device
DICOM C-ECHO sensor 	Availability of DICOM-capable systems and devices by sending C-ECHO requests to the target system

Sensor	What It Monitors
DICOM Query/Retrieve sensor  907	C-FIND capability of DICOM-capable systems and devices
Enterprise Virtual Array sensor  968	An HPE Storage EVA using the sssu.exe from HPE P6000 Command View Software
Exchange Backup (PowerShell) sensor  993	Backups of an Exchange server using Remote PowerShell
Exchange Database (PowerShell) sensor  1004	Database information of an Exchange server using Remote PowerShell
Exchange Database DAG (PowerShell) sensor  1017	DAG status of a database on an Exchange server using Remote PowerShell
Exchange Mail Queue (PowerShell) sensor  1030	Number of items in the outgoing mail queue of an Exchange server using Remote PowerShell
Exchange Mailbox (PowerShell) sensor  1041	Mailboxes of an Exchange server using Remote PowerShell
Exchange Public Folder (PowerShell) sensor  1052	Public folders and subfolders of an Exchange server using Remote PowerShell
EXE/Script sensor  1063	One value returned by the executable file or script (in one channel only) and the execution time
EXE/Script Advanced sensor  1077	Values returned by the executable file or script in multiple channels
FTP Server File Count sensor  1140	Number of files available in the directory listing
HL7 sensor  1180	Availability of HL7 interfaces
HTTP Full Web Page sensor  1277	Full download time of a web page including assets such as images
HTTP XML/REST Value sensor  1355	An .xml file from a specified URL
Hyper-V Cluster Shared Volume Disk Free sensor  1372	A Microsoft Hyper-V cluster shared volume via PowerShell
IP on DNS Blacklist sensor  1448	Listing of an IP address on specific blacklist servers


Sensor	What It Monitors
IPMI System Health sensor 	Status of a system via IPMI
Microsoft SQL v2 sensor 	A database on a Microsoft SQL server
NetApp Physical Disk sensor 	Disks of a NetApp cDOT or ONTAP storage system accessing the API via SOAP
Oracle SQL v2 sensor 	A database on an Oracle server
Oracle Tablespace sensor 	A tablespace on an Oracle server
Ping Jitter sensor 	A statistical jitter value and execution time
RADIUS v2 sensor 	A RADIUS server according to RFC 2865
REST Custom sensor 	A REST API endpoint
SIP Options Ping sensor 	Connectivity for a SIP server using SIP options "Ping"
Traceroute Hop Count sensor 	Number of hops needed from the probe system that the sensor runs on to the IP address/DNS name defined in the sensor's parent device
VMware Host Hardware Status (SOAP) sensor 	Hardware status of a VMware host server using SOAP
VMware Host Performance (SOAP) sensor 	A VMware host server using SOAP
VMware Virtual Machine (SOAP) sensor 	A VM on a VMware host server using SOAP
Windows MSMQ Queue Length sensor 	Number of messages in a message queue of the parent device
Windows Print Queue sensor 	Print queue on the sensor's parent device
Windows Updates Status (PowerShell) sensor 	Status of Windows updates on a computer, either from Microsoft or from the local WSUS server
WSUS Statistics sensor 	Various statistics on a WSUS server via WMI

Hardware Parameter Sensors


Sensor	What It Monitors
Dell PowerVault MDi Logical Disk sensor 	A virtual disk on a Dell PowerVault MD3000i, MD3420, MD3620i, MD3000f, MD3620f, or MD3820i
Dell PowerVault MDi Physical Disk sensor 	A physical disk on a Dell PowerVault MD3000i, MD3420, MD3620i, MD3000f, or MD3620f
Enterprise Virtual Array sensor 	An HPE Storage EVA using the sssu.exe from HPE P6000 Command View Software
NetApp Aggregate sensor 	Status of a NetApp cDOT or ONTAP storage aggregate accessing the API via SOAP
NetApp I/O sensor 	Input and output operations of a NetApp cDOT or ONTAP storage system accessing the API via SOAP
NetApp LIF sensor 	Logical interfaces of a NetApp cDOT or ONTAP cluster accessing the API via SOAP
NetApp LUN sensor 	Logical unit number (LUN) of a NetApp cDOT or ONTAP storage system accessing the API via SOAP
NetApp NIC sensor 	Network interface card (NIC) of a NetApp cDOT or ONTAP cluster accessing the API via SOAP
NetApp Physical Disk sensor 	Disks of a NetApp cDOT or ONTAP storage system accessing the API via SOAP
NetApp SnapMirror sensor 	SnapMirror relationships of a NetApp cDOT or ONTAP storage system accessing the API via SOAP
NetApp System Health sensor 	Health of a NetApp cDOT or ONTAP storage system accessing the API via SOAP
NetApp Volume sensor 	Volumes on a NetApp cDOT or ONTAP storage system accessing the API via SOAP
SNMP APC Hardware sensor 	Performance counters on an APC UPS device via SNMP








Sensor	What It Monitors
SNMP Buffalo TS System Health sensor  2316	System health of a Buffalo TeraStation NAS via SNMP
SNMP Cisco System Health sensor  2383	System health of a Cisco device via SNMP
SNMP Cisco UCS Blade sensor  2395	Health status of a Cisco UCS blade server via SNMP
SNMP Cisco UCS Chassis sensor  2407	Health status of the chassis of a Cisco UCS device via SNMP
SNMP Cisco UCS Physical Disk sensor  2419	A physical disk of a Cisco UCS device via SNMP
SNMP Cisco UCS System Health sensor  2430	System health of a Cisco UCS device via SNMP
SNMP CPU Load sensor  2442	System load via SNMP
SNMP Dell EqualLogic Logical Disk sensor  2513	A volume of a Dell EqualLogic storage system via SNMP
SNMP Dell EqualLogic Member Health sensor  2525	Health of an array member of an EqualLogic storage system via SNMP
SNMP Dell EqualLogic Physical Disk sensor  2537	A disk in a Dell EqualLogic storage system via SNMP
SNMP Dell Hardware sensor  2549	Performance counters on a Dell hardware device via SNMP
SNMP Dell PowerEdge Physical Disk sensor  2559	A physical disk in a Dell PowerEdge server via SNMP
SNMP Dell PowerEdge System Health sensor  2571	System health of a Dell PowerEdge server via SNMP
SNMP Disk Free sensor  2585	A logical disk via SNMP
SNMP Fujitsu System Health v2 sensor  2596	Status of a Fujitsu PRIMERGY server via the iRMC and SNMP
SNMP Hardware Status sensor  2609	Status of a hardware component of a server via SNMP
SNMP HP LaserJet Hardware sensor  2619	Performance counters on an HP LaserJet hardware device via SNMP

Sensor	What It Monitors
SNMP HPE BladeSystem Blade sensor 	Status of an HPE BladeSystem via SNMP
SNMP HPE BladeSystem Enclosure System Health sensor 	System health of an HPE BladeSystem device via SNMP
SNMP HPE ProLiant Memory Controller sensor 	A memory controller in an HPE server via SNMP
SNMP HPE ProLiant Network Interface sensor 	A network interface in an HPE server via SNMP
SNMP HPE ProLiant Physical Disk sensor 	A physical disk in an HPE server via SNMP
SNMP HPE ProLiant System Health sensor 	System health of an HPE ProLiant server via SNMP
SNMP IBM System X Physical Disk sensor 	A physical disk in an IBM server via SNMP
SNMP IBM System X Physical Memory sensor 	Memory modules in an IBM server via SNMP
SNMP IBM System X System Health sensor 	System health of an IBM device via SNMP
SNMP Juniper NS System Health sensor 	System health of a Juniper NetScreen device via SNMP
SNMP LenovoEMC Physical Disk sensor 	A physical disk in a LenovoEMC NAS via SNMP
SNMP LenovoEMC System Health sensor 	The system health of a LenovoEMC NAS via SNMP
SNMP Library sensor 	A device via SNMP
SNMP Memory sensor 	Memory usage of a system via SNMP
SNMP NetApp Enclosure sensor 	Power supply and cooling of an enclosure that is part of a NetApp storage system via SNMP
SNMP NetApp I/O sensor 	Input/output operations per second (IOPS) on a NetApp storage system via SNMP
SNMP NetApp Logical Unit sensor 	IOPS on a logical unit of a NetApp storage system via SNMP
SNMP NetApp Network Interface sensor 	A network card of a NetApp storage system via SNMP








Sensor	What It Monitors
SNMP NetApp System Health sensor 	Status of a NetApp storage system via SNMP
SNMP QNAP Physical Disk sensor 	A physical disk in a QNAP NAS via SNMP
SNMP QNAP System Health sensor 	System health of a QNAP NAS via SNMP
SNMP SonicWall System Health sensor 	Health values of a SonicWall NSA via SNMP
SNMP SonicWall VPN Traffic sensor 	Traffic of an IPsec VPN on a SonicWall NSA via SNMP
SNMP Synology Physical Disk sensor 	A physical disk in a Synology NAS via SNMP
SNMP Synology System Health sensor 	System health of a Synology NAS via SNMP
SSH SAN Enclosure sensor 	A SAN enclosure via SSH
SSH SAN Logical Disk sensor 	A logical disk on a SAN via SSH
SSH SAN Physical Disk sensor 	A physical disk on a SAN via SSH
SSH SAN System Health sensor 	System health of a SAN via SSH
Windows Physical Disk I/O sensor 	I/O parameters of a hard disk on a Windows system via WMI
WMI Battery sensor 	Available capacity and the state of connected batteries of a Windows-based device via WMI
WMI Disk Health sensor 	Health of a physical disk on a Windows system via WMI
WMI HDD Health sensor 	Health of IDE disk drives on the target system using S.M.A.R.T.
WMI Vital System Data v2 sensor 	Vital system parameters (CPU, thread, memory, network, pagefile) via WMI











IoT and IIoT Sensors

Sensor	What It Monitors
HTTP IoT Push Data Advanced sensor 	Messages received from IoT-capable devices






Sensor	What It Monitors
Modbus TCP Custom sensor 	that are pushed via an HTTPS request to PRTG Up to five values returned by a Modbus TCP server
MQTT Round Trip sensor 	Availability of an MQTT broker (server)
MQTT Statistics sensor 	Received messages and payload from an MQTT topic
MQTT Subscribe Custom sensor 	Up to five numeric values from the received JSON data
OPC UA Certificate sensor 	Certificate of an OPC UA server
OPC UA Custom sensor 	Up to five numeric values returned by specific OPC UA node IDs
OPC UA Server Status sensor 	Server status, uptime, and diagnostic information of an OPC UA server













Linux/Unix/macOS Sensors

Sensor	What It Monitors
Python Script Advanced sensor 	A Python script on the probe system
SFTP Secure File Transfer Protocol sensor 	FTP servers of a Linux/Unix system using the SSH File Transfer Protocol (FTP over SSH)
SNMP Linux Disk Free sensor 	Free space on disks of a Linux/Unix system via SNMP
SNMP Linux Load Average sensor 	System load average of a Linux/Unix system via SNMP
SNMP Linux Meminfo sensor 	Memory usage of a Linux/Unix system via SNMP
SNMP Linux Physical Disk sensor 	I/O on disks of a Linux/Unix system via SNMP
SSH Disk Free sensor 	Free space on disks of a Linux/Unix system via SSH




Sensor	What It Monitors
SSH INodes Free sensor 	Free index nodes on disks of Linux/Unix and macOS systems via SSH
SSH Load Average sensor 	Load average of a Linux/Unix system via SSH
SSH Meminfo sensor 	Memory usage of a Linux/Unix system via SSH
SSH Remote Ping sensor 	Connectivity between a system running Linux/macOS X and another device using ICMP echo requests and SSH
SSH SAN Enclosure sensor 	A SAN enclosure via SSH
SSH SAN Logical Disk sensor 	A logical disk on a SAN via SSH
SSH SAN Physical Disk sensor 	A physical disk on a SAN via SSH
SSH SAN System Health sensor 	System health of a SAN via SSH
SSH Script sensor 	One value returned by the executable file or script (in one channel only) and the execution time
SSH Script Advanced sensor 	Values returned by the script in multiple channels and execution time

Mail Server Sensors

Sensor	What It Monitors
Exchange Backup (PowerShell) sensor 	Backups of an Exchange server using Remote PowerShell
Exchange Database (PowerShell) sensor 	Database information of an Exchange server using Remote PowerShell
Exchange Database DAG (PowerShell) sensor 	DAG status of a database on an Exchange server using Remote PowerShell
Exchange Mail Queue (PowerShell) sensor 	Number of items in the outgoing mail queue of an Exchange server using Remote PowerShell
Exchange Mailbox (PowerShell) sensor 	Mailboxes of an Exchange server using Remote PowerShell



Sensor	What It Monitors
Exchange Public Folder (PowerShell) sensor 	Public folders and subfolders of an Exchange server using Remote PowerShell
IMAP sensor 	An email server using IMAP
IP on DNS Blacklist sensor 	Listing of the IP address of the sensor's parent device on specific blacklist servers
POP3 sensor 	An email server using POP3
SMTP sensor 	A mail server using SMTP
SMTP&IMAP Round Trip sensor 	Time it takes for an email to reach an IMAP mailbox after being sent using SMTP
SMTP&POP3 Round Trip sensor 	Time it takes for an email to reach a POP3 mailbox after being sent using SMTP
SSL Security Check sensor 	SSL/TLS connectivity to the port of a device
Windows IIS 6.0 SMTP Received sensor 	Number of received emails for a Microsoft IIS 6.0 SMTP service (Exchange 2003) via WMI or Windows performance counters
Windows IIS 6.0 SMTP Sent sensor 	Number of sent emails for a Microsoft IIS 6.0 SMTP service (Exchange 2003) via WMI or Windows performance counters
WMI Exchange Server sensor 	A Microsoft Exchange Server 2003 or later via WMI
WMI Exchange Transport Queue sensor 	Length of transport queues of a Microsoft Exchange Server 2003 or later via WMI

PRTG Internal Sensors

Sensor	What It Monitors
Cluster Health sensor 	Health of the cluster
Core Health sensor 	Status of the PRTG core server
Core Health (Autonomous) sensor 	Status of the PRTG core server

Sensor	What It Monitors
Probe Health sensor 	Status of the probe
System Health sensor 	Status of the probe system

PRTG Sensor Hub Sensors

In addition to the built-in sensors, you can create your own sensors. You can write a script or a program and use it with a [custom sensor](#) . There are already many free, useful scripts, plugins, and add-ons for PRTG in the [PRTG Sensor Hub](#). You can also directly open the PRTG Sensor Hub from the [Add Sensor](#)  dialog in the PRTG web interface.


















- To use the sensors in the PRTG Sensor Hub, go to <https://www.paessler.com/sensor-hub> and follow the instructions there.














SNMP Sensors

Sensor	What It Monitors
Cisco IP SLA sensor 	VoIP network parameters using IP SLAs from Cisco via SNMP
SNMP APC Hardware sensor 	Performance counters on an APC UPS device via SNMP
SNMP Buffalo TS System Health sensor 	System health of a Buffalo TeraStation NAS via SNMP
SNMP Cisco ADSL sensor 	Asymmetric digital subscriber line (ADSL) statistics of a Cisco router via SNMP
SNMP Cisco ASA VPN Connections sensor 	VPN connections on a Cisco Adaptive Security Appliance via SNMP
SNMP Cisco ASA VPN Traffic sensor 	Traffic of an IPsec VPN connection on a Cisco Adaptive Security Appliance via SNMP
SNMP Cisco ASA VPN Users sensor 	Account connections to a VPN on a Cisco Adaptive Security Appliance via SNMP
SNMP Cisco CBQoS sensor 	Network parameters using Cisco's CBQoS via SNMP
SNMP Cisco System Health sensor 	System health of a Cisco device via SNMP





Sensor	What It Monitors
SNMP Cisco UCS Blade sensor  2395	Health status of a Cisco UCS blade server via SNMP
SNMP Cisco UCS Chassis sensor  2407	Health status of the chassis of a Cisco UCS device via SNMP
SNMP Cisco UCS Physical Disk sensor  2419	A physical disk of a Cisco UCS device via SNMP
SNMP Cisco UCS System Health sensor  2430	System health of a Cisco UCS device via SNMP
SNMP CPU Load sensor  2442	System load via SNMP
SNMP Custom sensor  2453	A single parameter returned by a specific OID via SNMP
SNMP Custom Advanced sensor  2464	Numeric values returned for OIDs via SNMP
SNMP Custom String sensor  2475	A string returned by a specific OID via SNMP
SNMP Custom String Lookup sensor  2489	A string returned by a specific OID via SNMP directly mapped to a sensor status
SNMP Custom Table sensor  2500	Entries from a table that is provided via SNMP
SNMP Dell EqualLogic Logical Disk sensor  2513	A volume of a Dell EqualLogic storage system via SNMP
SNMP Dell EqualLogic Member Health sensor  2525	Health of an array member of an Dell EqualLogic storage system via SNMP
SNMP Dell EqualLogic Physical Disk sensor  2537	A disk in a Dell EqualLogic storage system via SNMP
SNMP Dell Hardware sensor  2549	Performance counters on a Dell hardware device via SNMP
SNMP Dell PowerEdge Physical Disk sensor  2559	A physical disk in a Dell PowerEdge server via SNMP
SNMP Dell PowerEdge System Health sensor  2571	System health of a Dell PowerEdge server via SNMP
SNMP Disk Free sensor  2585	Free disk space on a logical disk via SNMP

Sensor	What It Monitors
SNMP Fujitsu System Health v2 sensor 	Status of a Fujitsu PRIMERGY server via the iRMC and SNMP
SNMP Hardware Status sensor 	Status of a hardware component of a server via SNMP
SNMP HP LaserJet Hardware sensor 	Performance counters on an HP LaserJet hardware device via SNMP
SNMP HPE BladeSystem Blade sensor 	Status of an HPE BladeSystem via SNMP
SNMP HPE BladeSystem Enclosure System Health sensor 	System health of an HPE BladeSystem device via SNMP
SNMP HPE ProLiant Logical Disk sensor 	A logical disk in an HPE server via SNMP
SNMP HPE ProLiant Memory Controller sensor 	A memory controller in an HPE server via SNMP
SNMP HPE ProLiant Network Interface sensor 	A network interface in an HPE server via SNMP
SNMP HPE ProLiant Physical Disk sensor 	A physical disk in an HPE server via SNMP
SNMP HPE ProLiant System Health sensor 	System health of an HPE ProLiant server via SNMP
SNMP IBM System X Logical Disk sensor 	A logical disk in an IBM server via SNMP
SNMP IBM System X Physical Disk sensor 	A physical disk in an IBM server via SNMP
SNMP IBM System X Physical Memory sensor 	Memory modules in an IBM server via SNMP
SNMP IBM System X System Health sensor 	System health of an IBM device via SNMP
SNMP interSeptor Pro Environment sensor 	Data from a Jakarta interSeptor Pro environmental monitoring system via SNMP
SNMP Juniper NS System Health sensor 	System health of a Juniper NetScreen device via SNMP
SNMP LenovoEMC Physical Disk sensor 	A physical disk in a LenovoEMC NAS via SNMP
SNMP LenovoEMC System Health sensor 	System health of a LenovoEMC NAS via SNMP

















Sensor	What It Monitors
SNMP Library sensor 	A device via SNMP
SNMP Linux Disk Free sensor 	Free space on disks of a Linux/Unix system via SNMP
SNMP Linux Load Average sensor 	System load average of a Linux/Unix system via SNMP
SNMP Linux Meminfo sensor 	Memory usage of a Linux/Unix system via SNMP
SNMP Linux Physical Disk sensor 	Input/output (I/O) on disks of a Linux/Unix system via SNMP
SNMP Memory sensor 	Memory usage of a system via SNMP
SNMP NetApp Disk Free sensor 	Free space on disks of a NetApp storage system via SNMP
SNMP NetApp Enclosure sensor 	Power supply and cooling of an enclosure that is part of a NetApp storage system via SNMP
SNMP NetApp I/O sensor 	Input/output operations per second (IOPS) on a NetApp storage system via SNMP
SNMP NetApp License sensor 	Licenses for the services of a NetApp storage system via SNMP
SNMP NetApp Logical Unit sensor 	IOPS on a logical unit of a NetApp storage system via SNMP
SNMP NetApp Network Interface sensor 	A network card of a NetApp storage system via SNMP
SNMP NetApp System Health sensor 	Status of a NetApp storage system via SNMP
SNMP Nutanix Cluster Health sensor 	Status and performance of a Nutanix cluster via SNMP
SNMP Nutanix Hypervisor sensor 	A Nutanix hypervisor via SNMP
SNMP Poseidon Environment sensor 	Performance counters for environmental measurements on Poseidon hardware via SNMP
SNMP Printer sensor 	Various types of printers via SNMP



















Sensor	What It Monitors
SNMP QNAP Logical Disk sensor 	A logical disk in a QNAP NAS via SNMP
SNMP QNAP Physical Disk sensor 	A physical disk in a QNAP NAS via SNMP
SNMP QNAP System Health sensor 	System health of a QNAP NAS via SNMP
SNMP RMON sensor 	Traffic on a device using the RMON standard via SNMP
SNMP SonicWall System Health sensor 	Health values of a SonicWall NSA via SNMP
SNMP SonicWall VPN Traffic sensor 	Traffic of an IPsec VPN on a SonicWall NSA via SNMP
SNMP Synology Logical Disk sensor 	A logical disk in a Synology NAS via SNMP
SNMP Synology Physical Disk sensor 	A logical disk in a Synology NAS via SNMP
SNMP Synology System Health sensor 	System health of a Synology NAS via SNMP
SNMP System Uptime sensor 	Time a device runs via SNMP
SNMP Traffic sensor 	Traffic on a device via SNMP
SNMP Trap Receiver sensor 	SNMP traps
SNMP Windows Service sensor 	A Windows service via SNMP

Storage and File Server Sensors

Sensor	What It Monitors
Dell EMC Unity Enclosure Health v2 sensor 	Health of an enclosure on a Dell EMC storage system via the REST API
Dell EMC Unity File System v2 sensor 	A file system on a Dell EMC storage system via the REST API
Dell EMC Unity Storage Capacity v2 sensor 	Storage capacity of a Dell EMC storage system via the REST API
Dell EMC Unity Storage LUN v2 sensor 	A LUN on a Dell EMC storage system via the REST API



Sensor	What It Monitors
Dell EMC Unity Storage Pool v2 sensor 	A storage pool on a Dell EMC storage system via the REST API
Dell EMC Unity VMware Datastore v2 sensor 	A VMware datastore on a Dell EMC storage system via the REST API
Dell PowerVault MDi Logical Disk sensor 	A virtual disk on a Dell PowerVault MD3000i, MD3420, MD3620i, MD3000f, MD3620f, or MD3820i
Dell PowerVault MDi Physical Disk sensor 	A physical disk on a Dell PowerVault MD3000i, MD3420, MD3620i, MD3000f, or MD3620f
Enterprise Virtual Array sensor 	An HPE Storage EVA using the sssu.exe from HPE P6000 Command View Software
File sensor 	Changes to file content and file time stamp
File Content sensor 	Text files (for example, logfiles) for certain strings
Folder sensor 	A folder using SMB
FTP sensor 	File servers using FTP and FTPS
FTP Server File Count sensor 	Changes to files
Hyper-V Cluster Shared Volume Disk Free sensor 	A Microsoft Hyper-V cluster shared volume via PowerShell
Hyper-V Virtual Storage Device sensor 	A virtual storage device running on a Microsoft Hyper-V host server via WMI or Windows Performance Counters
NetApp Aggregate sensor 	Status of a NetApp cDOT or ONTAP storage aggregate accessing the API via SOAP
NetApp I/O sensor 	Input and output operations of a NetApp cDOT or ONTAP storage system accessing the API via SOAP
NetApp LIF sensor 	Logical interfaces of a NetApp cDOT or ONTAP cluster accessing the API via SOAP
NetApp LUN sensor 	A LUN of a NetApp cDOT or ONTAP storage system accessing the API via SOAP


Sensor	What It Monitors
NetApp NIC sensor  1751	Network interface card (NIC) of a NetApp cDOT or ONTAP cluster accessing the API via SOAP
NetApp Physical Disk sensor  1765	Disks of a NetApp cDOT or ONTAP storage system accessing the API via SOAP
NetApp SnapMirror sensor  1779	SnapMirror relationships of a NetApp cDOT or ONTAP storage system accessing the API via SOAP
NetApp System Health sensor  1794	Health of a NetApp cDOT or ONTAP storage system accessing the API via SOAP
NetApp Volume sensor  1809	Volumes on a NetApp cDOT or ONTAP storage system accessing the API via SOAP
SFTP Secure File Transfer Protocol sensor  2228	FTP servers of a Linux/Unix system using the SSH File Transfer Protocol (FTP over SSH)
Share Disk Free sensor  2240	Free disk space of a share (Windows/Samba) using SMB
SNMP Buffalo TS System Health sensor  2316	System health of a Buffalo TeraStation NAS via SNMP
SNMP Cisco UCS Physical Disk sensor  2419	A physical disk of a Cisco UCS device via SNMP
SNMP Dell EqualLogic Logical Disk sensor  2513	Volume of a Dell EqualLogic storage system via SNMP
SNMP Dell EqualLogic Member Health sensor  2525	Health of an array member of an EqualLogic storage system via SNMP
SNMP Dell EqualLogic Physical Disk sensor  2537	A disk in a Dell EqualLogic storage system via SNMP
SNMP Dell PowerEdge Physical Disk sensor  2559	A physical disk in a Dell PowerEdge server via SNMP
SNMP HPE ProLiant Logical Disk sensor  2650	A logical disk in an HPE server via SNMP
SNMP HPE ProLiant Physical Disk sensor  2685	A physical disk in an HPE server via SNMP
SNMP IBM System X Logical Disk sensor  2711	A logical disk in an IBM server via SNMP

Sensor	What It Monitors
SNMP IBM System X Physical Disk sensor 	A physical disk in an IBM server via SNMP
SNMP LenovoEMC Physical Disk sensor 	Physical disk in a LenovoEMC NAS via SNMP
SNMP LenovoEMC System Health sensor 	System health of a LenovoEMC NAS via SNMP
SNMP Linux Disk Free sensor 	Free space on disks of a Linux/Unix system via SNMP
SNMP Linux Physical Disk sensor 	Input/output (I/O) on disks of a Linux/Unix system via SNMP
SNMP NetApp Disk Free sensor 	Free space on disks of a NetApp storage system via SNMP
SNMP NetApp Enclosure sensor 	Power supply and cooling of an enclosure that is part of a NetApp storage system via SNMP
SNMP NetApp I/O sensor 	Input/output operations per second (IOPS) on a NetApp storage system via SNMP
SNMP NetApp License sensor 	Licenses for the services of a NetApp storage system via SNMP
SNMP NetApp Logical Unit sensor 	IOPS on a logical unit of a NetApp storage system via SNMP
SNMP NetApp Network Interface sensor 	A network card of a NetApp storage system via SNMP
SNMP NetApp System Health sensor 	Status of a NetApp storage system via SNMP
SNMP Nutanix Cluster Health sensor 	Status and performance of a Nutanix cluster via SNMP
SNMP Nutanix Hypervisor sensor 	A Nutanix hypervisor via SNMP
SNMP QNAP Logical Disk sensor 	A logical disk in a QNAP NAS via SNMP
SNMP QNAP Physical Disk sensor 	A physical disk in a QNAP NAS via SNMP
SNMP QNAP System Health sensor 	System health of a QNAP NAS via SNMP
SNMP Synology Logical Disk sensor 	A logical disk in a Synology NAS via SNMP

















Sensor	What It Monitors
SNMP Synology Physical Disk sensor 	A physical disk in a Synology NAS via SNMP
SNMP Synology System Health sensor 	System health of a Synology NAS via SNMP
SSH SAN Enclosure sensor 	A SAN enclosure via SSH
SSH SAN Logical Disk sensor 	A logical disk on a SAN via SSH
SSH SAN Physical Disk sensor 	A physical disk on a SAN via SSH
SSH SAN System Health sensor 	System health of a SAN via SSH
TFTP sensor 	A TFTP server to check if a certain file is available for download
VMware Datastore (SOAP) sensor 	Disk usage of a VMware datastore via SOAP
Windows Physical Disk I/O sensor 	Input/output parameters of a hard disk on a Windows system via WMI or Windows performance counters
WMI Disk Health sensor 	Health of a physical disk on a Windows system via WMI
WMI File sensor 	A file via WMI
WMI Free Disk Space (Multi Disk) sensor 	Free disk space of one or more drives via WMI
WMI Logical Disk I/O sensor 	Disk usage of a logical disk or mount point on a Windows system via WMI
WMI Storage Pool sensor 	A storage pool via WMI
WMI Volume sensor 	Free disk space on a drive, logical volume, or mount point via WMI


Various Server Sensors

Sensor	What It Monitors
DHCP sensor 	A DHCP server
DNS sensor 	A DNS server






Sensor	What It Monitors
DNS v2 sensor  930	A DNS server, resolves domain name records, and compares them to a filter
IPMI System Health sensor  1491	Status of a system via the IPMI
LDAP sensor  1536	Directory services using the LDAP
OPC UA Certificate sensor  1889	Certificate of an OPC UA server
OPC UA Custom sensor  1900	Up to five numeric values returned by specific OPC UA node IDs
OPC UA Server Status sensor  1912	Server status, uptime, and diagnostic information of an OPC UA server
Ping sensor  2010	Availability of a device
Ping Jitter sensor  2020	A statistical jitter value and the execution time
Port sensor  2041	A network service by connecting to the sensor's port
Port Range sensor  2054	A network service by connecting to various TCP/IP ports
RADIUS v2 sensor  2129	A RADIUS server according to RFC 2865
RDP (Remote Desktop) sensor  2141	Remote desktop services (RDP, Terminal Services Client)
SNMP Trap Receiver sensor  3107	SNMP traps
SNTP sensor  3133	An SNTP server
SSL Security Check sensor  3315	SSL/TLS connectivity to the port of a device
Syslog Receiver sensor  3326	Syslog messages
Traceroute Hop Count sensor  3359	Number of hops needed from the probe system that the sensor runs on to the IP Address/DNS Name defined in the sensor's parent device

Virtual Server Sensors







Sensor	What It Monitors
Citrix XenServer Host sensor 	A Xen host server via HTTP
Citrix XenServer Virtual Machine sensor 	A VM on a Citrix XenServer via HTTP
Dell EMC Unity VMware Datastore v2 sensor 	A VMware datastore on a Dell EMC storage system via the REST API
Docker Container Status sensor 	Status of a Docker container
Hyper-V Cluster Shared Volume Disk Free sensor 	A Microsoft Hyper-V cluster shared volume via PowerShell
Hyper-V Host Server sensor 	A Microsoft Hyper-V host server via WMI or Windows performance counters
Hyper-V Virtual Machine sensor 	A VM running on a Microsoft Hyper-V host server via WMI or Windows performance counters
Hyper-V Virtual Network Adapter sensor 	Virtual network adapters running on a Microsoft Hyper-V host server via WMI or Windows performance counters
Hyper-V Virtual Storage Device sensor 	A virtual storage device running on a Microsoft Hyper-V host server via WMI or Windows performance counters
Microsoft Azure Virtual Machine sensor 	Status of a virtual machine in a Microsoft Azure subscription
SNMP Nutanix Cluster Health sensor 	Status and performance of a Nutanix cluster via SNMP
SNMP Nutanix Hypervisor sensor 	A Nutanix hypervisor via SNMP
VMware Datastore (SOAP) sensor 	Disk usage of a VMware datastore via SOAP
VMware Host Hardware (WBEM) sensor 	Hardware information of an ESXi server using WBEM
VMware Host Hardware Status (SOAP) sensor 	Hardware status of a VMware host server via SOAP
VMware Host Performance (SOAP) sensor 	A VMware host server via SOAP

Sensor	What It Monitors
VMware Virtual Machine (SOAP) sensor 	A VM on a VMware host server via SOAP

VoIP and QoS Sensors

Sensor	What It Monitors
Cisco IP SLA sensor 	VoIP network parameters using IP SLAs from Cisco via SNMP
QoS (Quality of Service) One Way sensor 	Parameters regarding the quality of a network connection between two probes
QoS (Quality of Service) Round Trip sensor 	Parameters regarding the quality of a network connection between a probe and a target device at the endpoint of the connection
SIP Options Ping sensor 	Connectivity for a SIP server using SIP options "Ping"
SNMP Cisco CBQoS sensor 	VoIP network parameters using Cisco's CBQoS via SNMP

Web Server (HTTP) Sensors

Sensor	What It Monitors
Cloud HTTP sensor 	Loading time of a web server via HTTP from different locations worldwide
Cloud HTTP v2 sensor 	Loading time of a web server via HTTP from different locations worldwide
Common SaaS sensor 	Availability of several SaaS providers
HTTP sensor 	A web server using HTTP
HTTP Advanced sensor 	Source code of a web page using HTTP
HTTP Apache ModStatus PerfStats sensor 	Performance statistics of an Apache web server using mod_status over HTTP

Sensor	What It Monitors
HTTP Apache ModStatus Totals sensor 	Activity of an Apache web server using mod_status over HTTP
HTTP Content sensor 	A numeric value returned by an HTTP request
HTTP Data Advanced sensor 	Values returned by the web server in multiple channels
HTTP Full Web Page sensor 	Full download time of a web page including assets such as images
HTTP IoT Push Data Advanced sensor 	Received values and a message encoded in valid XML or JSON in multiple channels
HTTP Push Count sensor 	Received messages that are pushed via an HTTP request to PRTG
HTTP Push Data sensor 	Numeric values from received messages that are pushed via an HTTP request to PRTG
HTTP Push Data Advanced sensor 	Data from received messages that are pushed via an HTTP request to PRTG
HTTP Transaction sensor 	An interactive website by performing a transaction using a set of HTTP URLs
HTTP XML/REST Value sensor 	An .xml file from a specified URL
REST Custom sensor 	Values returned by a REST API in multiple channels
SSL Certificate sensor 	Certificate of an SSL/TLS connection
SSL Security Check sensor 	SSL connectivity to the port of a device
Windows IIS Application sensor 	A Microsoft IIS server via WMI

Windows WMI/Performance Counter Sensors











Sensor	What It Monitors
Active Directory Replication Errors sensor 	A Windows DC for replication errors
Event Log (Windows API) sensor 	Event Log entries using the Windows API





Sensor	What It Monitors
PerfCounter Custom sensor 	A configured set of Windows performance counters
PerfCounter IIS Application Pool sensor 	A Microsoft IIS application pool using Windows performance counters
Windows CPU Load sensor 	CPU load on a computer via WMI or Windows performance counters
Windows IIS 6.0 SMTP Received sensor 	Number of received emails for a IIS 6.0 SMTP service (Exchange 2003) via WMI or Windows performance counters
Windows IIS 6.0 SMTP Sent sensor 	Number of sent emails for a IIS 6.0 SMTP service (Exchange 2003) via WMI or Windows performance counters
Windows IIS Application sensor 	A Microsoft IIS application pool using Windows performance counters
Windows MSMQ Queue Length sensor 	Number of messages in a message queue of the parent device
Windows Network Card sensor 	Bandwidth usage and traffic of a network interface via WMI or Windows performance counters
Windows Pagefile sensor 	Windows pagefile usage via WMI or Windows performance counters
Windows Physical Disk I/O sensor 	Input/output parameters of a hard disk on a Windows system via WMI or Windows performance counters
Windows Print Queue sensor 	Print queue on the sensor's parent device
Windows Process sensor 	A Windows process via WMI or Windows performance counters
Windows System Uptime sensor 	Uptime of a Windows system via WMI or Windows performance counters
Windows Updates Status (PowerShell) sensor 	Status of Windows updates on a computer
WMI Battery sensor 	Available capacity and state of connected batteries of a Windows-based device via WMI

Sensor	What It Monitors
WMI Custom sensor  3596	Numeric values (integers and floats)
WMI Custom String sensor  3608	Retrieved string value in the sensor message and response time
WMI Disk Health sensor  3622	Health of a physical disk on a Windows system via WMI
WMI Event Log sensor  3634	A specific Windows logfile via WMI
WMI Exchange Server sensor  3646	A Microsoft Exchange Server 2003 or later via WMI
WMI Exchange Transport Queue sensor  3660	Length of transport queues of a Microsoft Exchange Server 2003 or later via WMI
WMI File sensor  3674	A file via WMI
WMI Free Disk Space (Multi Disk) sensor  3685	Free disk space of one or more drives via WMI
WMI HDD Health sensor  3700	Health of IDE disk drives on the target system using S.M.A.R.T.
WMI Logical Disk I/O sensor  3713	Disk usage of a logical disk or mount point on a Windows system via WMI
WMI Memory sensor  3725	Available (free) system memory on Windows systems via WMI
WMI Microsoft SQL Server 2005 sensor  3736	Performance of a Microsoft SQL Server via WMI
WMI Microsoft SQL Server 2008 sensor  3749	Performance of a Microsoft SQL Server via WMI
WMI Microsoft SQL Server 2012 sensor  3762	Performance of a Microsoft SQL Server via WMI
WMI Microsoft SQL Server 2014 sensor  3775	Performance of a Microsoft SQL Server via WMI
WMI Microsoft SQL Server 2016 sensor  3788	Performance of a Microsoft SQL Server via WMI
WMI Microsoft SQL Server 2017 sensor  3801	Performance of a Microsoft SQL Server via WMI
WMI Microsoft SQL Server 2019 sensor  3814	Performance of a Microsoft SQL Server via WMI
WMI Remote Ping sensor  3827	Ping time from the remote device to the target device that is being pinged

Sensor	What It Monitors
WMI Security Center sensor 	Security status of a Windows client computer via WMI
WMI Service sensor 	A Windows service via WMI
WMI Share sensor 	A shared resource on a Windows system via WMI
WMI SharePoint Process sensor 	A Microsoft SharePoint server via WMI
WMI Storage Pool sensor 	A storage pool via WMI
WMI Terminal Services (Windows 2008+) sensor 	Number of sessions on a Windows Terminal Services (Remote Desktop Services) server via WMI
WMI Terminal Services (Windows XP/Vista/2003) sensor 	Number of sessions on a Windows Terminal Services (Remote Desktop Services) server via WMI
WMI UTC Time sensor 	UTC time of a target device via WMI
WMI Vital System Data v2 sensor 	Vital system parameters (CPU, thread, memory, network, pagefile) via WMI
WMI Volume sensor 	Free disk space on a drive, logical volume, or mount point via WMI
WSUS Statistics sensor 	Various statistics on a WSUS server via WMI

Appendix

- [Differences between PRTG on premises and PRTG Hosted Monitor](#) 
- [Glossary](#) 
- [Legal Notices](#) 
- [List of Abbreviations](#) 
- [List of Available Sensor Types](#) 
- [List of Default Ports](#) 
- [List of Icons](#) 
- [List of New Sensors](#) 
- [List of Notification Triggers and Supported Sensors](#) 
- [List of Placeholders for Notifications](#) 







- [List of Sensors by Performance Impact](#)  4672
- [List of Sensors with IPv6 Support](#)  4693
- [List of Standard Lookup Files](#)  4724
- [Support and Troubleshooting](#)  4738








15.6 List of Default Ports









Here you can find lists for all default ports used in PRTG:

- [Ports Used by Sensors](#) 
- [Ports Used in Other Contexts](#)

Ports Used by Sensors

Sensors	Default Port Numbers	Description
Cloud HTTP and Cloud Ping sensors	443	Port for the communication via the PRTG Cloud
Cloud Ping sensors	80	Port for the TCP ping
Dell EMC sensors	443	Port for the connection to the Dell EMC system
DICOM sensors	104	Port for the connection to the DICOM interface
DNS sensors	53	Port for the connection to the device that runs the DNS service
Docker Container Status sensor 	2376 (Docker over TLS)	Port for the connection to the Docker container
FTP sensor 	21	Port for the connection to the file server
HL7 sensor 	104	Port for the connection to the HL7 interface
HTTP sensors	8080	Port of the proxy
HTTP IoT Push Data Advanced sensor 	5051	Port on which the sensor listens for incoming HTTPS requests  This port is fixed. You cannot change it.
HTTP Push sensors	<ul style="list-style-type: none"> ▪ 5050 (unsecure) ▪ 5051 (secure) 	Port on which the sensor listens for incoming HTTP or HTTPS requests
IMAP sensor 	<ul style="list-style-type: none"> ▪ 143 (unsecure) ▪ 993 (secure) 	Port for the IMAP connection















Sensors	Default Port Numbers	Description
LDAP sensor 	<ul style="list-style-type: none"> ▪ 389 (unsecure) ▪ 636 (secure) 	Port for the connection to the LDAP server
NetApp sensors	443	Port for the NetApp API access
Microsoft SQL v2 sensor	1433	Port for the connection to the Microsoft SQL database
MySQL v2 sensor	3306	Port for the connection to the MySQL database
Modbus TCP Custom sensor 	502	Port for the connection to the Modbus TCP server
MQTT sensors	<ul style="list-style-type: none"> ▪ 1883 (unsecure) ▪ 8883 (secure) 	Port for the MQTT connection
OPC UA sensors	4840	Port for the connection to the OPC UA server
Oracle sensors	1521	Port for the connection to the Oracle SQL database
POP3 sensor 	<ul style="list-style-type: none"> ▪ 110 (unsecure) ▪ 995 (secure) 	Port for the POP3 connection
PostgreSQL sensor 	5432	Port for the connection to the PostgreSQL database
QoS sensors	50000	Port on which the sensor listens for the UDP packets
RADIUS v2 sensor 	1812	Port for the connection to the RADIUS server
RDP (Remote Desktop) sensor 	3389	Port for the RDP connection
REST sensors	8080	Port for the proxy
SIP Options Ping sensor 	5060	Port for the UDP connection

Sensors	Default Port Numbers	Description
SMTP sensors	<ul style="list-style-type: none"> ▪ 25 (unsecure) ▪ 465 or 587 (secure) 	Port used to send an email via SMTP
SMTP&IMAP Round Trip sensor 	<ul style="list-style-type: none"> ▪ 143 (unsecure) ▪ 993 (secure) 	Port for the IMAP connection
SMTP&POP3 Round Trip sensor 	<ul style="list-style-type: none"> ▪ 110 (unsecure) ▪ 995 (secure) 	Port for the POP3 connection
SNMP sensors	161	Port for the SNMP connection
SNMP Trap Receiver sensor 	162	Port on which the sensor listens for SNMP traps and on which trap messages are sent
SSL sensors	443	Port for the Secure Sockets Layer (SSL)/Transport Layer Security (TLS) connection
Syslog Receiver sensor 	514	Port on which the sensor listens for Syslog messages and on which Syslog messages are sent
TFTP sensor 	69	Port of the device on which the TFTP service runs
Veeam Backup Job Status sensor 	9398	Port for the connection to the Veeam Backup Enterprise Manager
WBEM sensors	<ul style="list-style-type: none"> ▪ 5988 (unsecure) ▪ 5989 (secure) 	Port for the communication via WBEM
Windows Updates Status (PowerShell) sensor 	5985	Port for the connection to Microsoft or to the local WSUS server
WSUS Statistics sensor 	8530	Port for the connection to the device on which the WSUS server service runs

Ports Used in Other Contexts











Context	Default Port Numbers	Description
Cluster communication	23570	Port for the communication between cluster nodes
Incoming probe connections	23560	Port on which PRTG listens for incoming remote probe connections
PRTG Cloud	443	Port used by the PRTG Cloud for support tickets, for example
PRTG web server	<ul style="list-style-type: none"> ▪ 80 (unsecure) ▪ 443 (secure) 	Port used by the PRTG web server
Report generation	8085	Port used for report generation

Appendix










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- [List of Abbreviations](#) 
- [List of Available Sensor Types](#) 
- [List of Default Ports](#) 
- [List of Icons](#) 
- [List of New Sensors](#) 
- [List of Notification Triggers and Supported Sensors](#) 
- [List of Placeholders for Notifications](#) 
- [List of Sensors by Performance Impact](#) 
- [List of Sensors with IPv6 Support](#) 
- [List of Standard Lookup Files](#) 
- [Support and Troubleshooting](#) 






15.7 List of Icons

See below for a list of icons used in this documentation.

	Notes that contain additional information.
	Notes that contain critical information on the functioning of PRTG. Pay close attention to this information to avoid serious consequences for PRTG.
	There is more information on this topic in a different section of the PRTG Manual or in the Knowledge Base.
	This feature is in beta status and might not function properly in all situations.
	There is a video on this topic.
	Examples on how to use a feature.
	This information is relevant for PRTG Hosted Monitor.
	This information is relevant for PRTG on premises.
	There is a Paessler tool that you can use.
	There is more information on this topic in the PRTG Manual, the Knowledge Base, the Paessler Blog, on the Paessler Website, or on other websites. This icon is only used in More sections.







Appendix

- [Differences between PRTG on premises and PRTG Hosted Monitor](#) 
- [Glossary](#) 
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- [List of Icons](#) 
- [List of New Sensors](#) 
- [List of Notification Triggers and Supported Sensors](#) 















- [List of Placeholders for Notifications](#)  4662
- [List of Sensors by Performance Impact](#)  4672
- [List of Sensors with IPv6 Support](#)  4693
- [List of Standard Lookup Files](#)  4724
- [Support and Troubleshooting](#)  4736

15.8 List of New Sensors

Here you can find a list of sensors that are new.






Sensor	Description
Microsoft Azure Subscription Cost sensor 	Monitors the cost in a Microsoft Azure subscription.
MQTT Subscribe Custom sensor 	Subscribes to an MQTT topic and monitors up to five numeric values from the received JSON data.
OPC UA Certificate sensor 	Monitors the certificate of an OPC UA server.
OPC UA Custom sensor 	Monitors up to five numeric values returned by specific OPC UA node IDs.
OPC UA Server Status sensor 	Monitors the server status, uptime, and diagnostic information of an OPC UA server.
Veeam Backup Job Status sensor 	Monitors the status of all backup job runs on the Veeam Backup Enterprise Manager in the last 24 hours.

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- [List of Placeholders for Notifications](#) 
- [List of Sensors by Performance Impact](#) 
- [List of Sensors with IPv6 Support](#) 
- [List of Standard Lookup Files](#) 
- [Support and Troubleshooting](#) 

15.9 List of Notification Triggers and Supported Sensors

Here you can find a list of all notification triggers and the sensors that they support.

































- [State trigger](#) 
- [Speed trigger](#) 
- [Volume trigger](#) 
- [Threshold trigger](#) 
- [Change trigger](#) 

Notification Trigger	Supported Sensors
State trigger	<ul style="list-style-type: none"> ▪ Active Directory Replication Errors sensor  ▪ ADO SQL v2 sensor  ▪ Amazon CloudWatch Alarm sensor  ▪ Amazon CloudWatch EBS sensor  ▪ Amazon CloudWatch EC2 sensor  ▪ Amazon CloudWatch ElastiCache sensor  ▪ Amazon CloudWatch ELB sensor  ▪ Amazon CloudWatch RDS sensor  ▪ Amazon CloudWatch SNS sensor  ▪ Amazon CloudWatch SQS sensor  ▪ AWS Cost sensor  ▪ Business Process sensor  ▪ Cisco IP SLA sensor  ▪ Citrix XenServer Host sensor  ▪ Citrix XenServer Virtual Machine sensor  ▪ Cloud HTTP sensor  ▪ Cloud HTTP v2 sensor  ▪ Cloud Ping sensor  ▪ Cloud Ping v2 sensor  ▪ Cluster Health sensor  ▪ Common SaaS sensor  ▪ Core Health sensor  ▪ Core Health (Autonomous) sensor  ▪ Dell EMC Unity Enclosure Health v2 sensor 

Notification Trigger	Supported Sensors
	<ul style="list-style-type: none"> ▪ Dell EMC Unity File System v2 sensor^[790] ▪ Dell EMC Unity Storage Capacity v2 sensor^[802] ▪ Dell EMC Unity Storage LUN v2 sensor^[813] ▪ Dell EMC Unity Storage Pool v2 sensor^[825] ▪ Dell EMC Unity VMware Datastore v2 sensor^[838] ▪ Dell PowerVault MDi Logical Disk sensor^[850] ▪ Dell PowerVault MDi Physical Disk sensor^[861] ▪ DHCP sensor^[873] ▪ DICOM Bandwidth sensor^[885] ▪ DICOM C-ECHO sensor^[896] ▪ DICOM Query/Retrieve sensor^[907] ▪ DNS sensor^[919] ▪ DNS v2 sensor^[930] ▪ Docker Container Status sensor^[943] ▪ Dropbox sensor^[956] ▪ Enterprise Virtual Array sensor^[968] ▪ Event Log (Windows API) sensor^[980] ▪ Exchange Backup (PowerShell) sensor^[993] ▪ Exchange Database (PowerShell) sensor^[1004] ▪ Exchange Database DAG (PowerShell) sensor^[1017] ▪ Exchange Mail Queue (PowerShell) sensor^[1030] ▪ Exchange Mailbox (PowerShell) sensor^[1041] ▪ Exchange Public Folder (PowerShell) sensor^[1052] ▪ EXE/Script sensor^[1065] ▪ EXE/Script Advanced sensor^[1077] ▪ File sensor^[1092] ▪ File Content sensor^[1104] ▪ Folder sensor^[1116] ▪ FTP sensor^[1129] ▪ FTP Server File Count sensor^[1140] ▪ Google Analytics sensor^[1153] ▪ Google Drive sensor^[1168]

































Notification Trigger

Supported Sensors

- [HL7 sensor](#) 
- [HTTP sensor](#) 
- [HTTP Advanced sensor](#) 
- [HTTP Apache ModStatus PerfStats sensor](#) 
- [HTTP Apache ModStatus Totals sensor](#) 
- [HTTP Content sensor](#) 
- [HTTP Data Advanced sensor](#) 
- [HTTP Full Web Page sensor](#) 
- [HTTP IoT Push Data Advanced sensor](#) 
- [HTTP Push Count sensor](#) 
- [HTTP Push Data sensor](#) 
- [HTTP Push Data Advanced sensor](#) 
- [HTTP Transaction sensor](#) 
- [HTTP XML/REST Value sensor](#) 
- [Hyper-V Cluster Shared Volume Disk Free sensor](#) 
- [Hyper-V Host Server sensor](#) 
- [Hyper-V Virtual Machine sensor](#) 
- [Hyper-V Virtual Network Adapter sensor](#) 
- [Hyper-V Virtual Storage Device sensor](#) 
- [IMAP sensor](#) 
- [IP on DNS Blacklist sensor](#) 
- [IPFIX sensor](#) 
- [IPFIX \(Custom\) sensor](#) 
- [IPMI System Health sensor](#) 
- [jFlow v5 sensor](#) 
- [jFlow v5 \(Custom\) sensor](#) 
- [LDAP sensor](#) 
- [Microsoft 365 Service Status sensor](#) 
- [Microsoft 365 Service Status Advanced sensor](#) 
- [Microsoft Azure Subscription Cost sensor](#) 
- [Microsoft Azure Virtual Machine sensor](#) 
- [Microsoft OneDrive sensor](#) 

































Notification Trigger
































Supported Sensors

- [Microsoft SQL v2 sensor](#) 
- [Modbus TCP Custom sensor](#) 
- [MQTT Round Trip sensor](#) 
- [MQTT Statistics sensor](#) 
- [MQTT Subscribe Custom sensor](#) 
- [MySQL v2 sensor](#) 
- [NetApp Aggregate sensor](#) 
- [NetApp I/O sensor](#) 
- [NetApp LIF sensor](#) 
- [NetApp LUN sensor](#) 
- [NetApp NIC sensor](#) 
- [NetApp Physical Disk sensor](#) 
- [NetApp SnapMirror sensor](#) 
- [NetApp System Health sensor](#) 
- [NetApp Volume sensor](#) 
- [NetFlow v5 sensor](#) 
- [NetFlow v5 \(Custom\) sensor](#) 
- [NetFlow v9 sensor](#) 
- [NetFlow v9 \(Custom\) sensor](#) 
- [OPC UA Certificate sensor](#) 
- [OPC UA Custom sensor](#) 
- [OPC UA Server Status sensor](#) 
- [Oracle SQL v2 sensor](#) 
- [Oracle Tablespace sensor](#) 
- [Packet Sniffer sensor](#) 
- [Packet Sniffer \(Custom\) sensor](#) 
- [PerfCounter Custom sensor](#) 
- [PerfCounter IIS Application Pool sensor](#) 
- [Ping sensor](#) 
- [Ping Jitter sensor](#) 
- [POP3 sensor](#) 
- [Port sensor](#) 

Notification Trigger
































Supported Sensors
































- [Port Range sensor](#) 
- [PostgreSQL sensor](#) 
- [Probe Health sensor](#) 
- [Python Script Advanced sensor](#) 
- [QoS \(Quality of Service\) One Way sensor](#) 
- [QoS \(Quality of Service\) Round Trip sensor](#) 
- [RADIUS v2 sensor](#) 
- [RDP \(Remote Desktop\) sensor](#) 
- [REST Custom sensor](#) 
- [Sensor Factory sensor](#) 
- [sFlow sensor](#) 
- [sFlow \(Custom\) sensor](#) 
- [SFTP Secure File Transfer Protocol sensor](#) 
- [Share Disk Free sensor](#) 
- [SIP Options Ping sensor](#) 
- [SMTP sensor](#) 
- [SMTP&IMAP Round Trip sensor](#) 
- [SMTP&POP3 Round Trip sensor](#) 
- [SNMP APC Hardware sensor](#) 
- [SNMP Buffalo TS System Health sensor](#) 
- [SNMP Cisco ADSL sensor](#) 
- [SNMP Cisco ASA VPN Connections sensor](#) 
- [SNMP Cisco ASA VPN Traffic sensor](#) 
- [SNMP Cisco ASA VPN Users sensor](#) 
- [SNMP Cisco CBQoS sensor](#) 
- [SNMP Cisco System Health sensor](#) 
- [SNMP Cisco UCS Blade sensor](#) 
- [SNMP Cisco UCS Chassis sensor](#) 
- [SNMP Cisco UCS Physical Disk sensor](#) 
- [SNMP Cisco UCS System Health sensor](#) 
- [SNMP CPU Load sensor](#) 
- [SNMP Custom sensor](#) 

Notification Trigger	Supported Sensors
	<ul style="list-style-type: none"> ▪ SNMP Custom Advanced sensor  ▪ SNMP Custom String sensor  ▪ SNMP Custom String Lookup sensor  ▪ SNMP Custom Table sensor  ▪ SNMP Dell EqualLogic Logical Disk sensor  ▪ SNMP Dell EqualLogic Member Health sensor  ▪ SNMP Dell EqualLogic Physical Disk sensor  ▪ SNMP Dell Hardware sensor  ▪ SNMP Dell PowerEdge Physical Disk sensor  ▪ SNMP Dell PowerEdge System Health sensor  ▪ SNMP Disk Free sensor  ▪ SNMP Fujitsu System Health v2 sensor  ▪ SNMP Hardware Status sensor  ▪ SNMP HP LaserJet Hardware sensor  ▪ SNMP HPE BladeSystem Blade sensor  ▪ SNMP HPE BladeSystem Enclosure System Health sensor  ▪ SNMP HPE ProLiant Logical Disk sensor  ▪ SNMP HPE ProLiant Memory Controller sensor  ▪ SNMP HPE ProLiant Network Interface sensor  ▪ SNMP HPE ProLiant Physical Disk sensor  ▪ SNMP HPE ProLiant System Health sensor  ▪ SNMP IBM System X Logical Disk sensor  ▪ SNMP IBM System X Physical Disk sensor  ▪ SNMP IBM System X Physical Memory sensor  ▪ SNMP IBM System X System Health sensor  ▪ SNMP interSeptor Pro Environment sensor  ▪ SNMP Juniper NS System Health sensor  ▪ SNMP LenovoEMC Physical Disk sensor  ▪ SNMP LenovoEMC System Health sensor  ▪ SNMP Library sensor  ▪ SNMP Linux Disk Free sensor 

Notification Trigger
































Supported Sensors
















- [SNMP Linux Load Average sensor](#) 
- [SNMP Linux Meminfo sensor](#) 
- [SNMP Linux Physical Disk sensor](#) 
- [SNMP Memory sensor](#) 
- [SNMP NetApp Disk Free sensor](#) 
- [SNMP NetApp Enclosure sensor](#) 
- [SNMP NetApp I/O sensor](#) 
- [SNMP NetApp License sensor](#) 
- [SNMP NetApp Logical Unit sensor](#) 
- [SNMP NetApp Network Interface sensor](#) 
- [SNMP NetApp System Health sensor](#) 
- [SNMP Nutanix Cluster Health sensor](#) 
- [SNMP Nutanix Hypervisor sensor](#) 
- [SNMP Poseidon Environment sensor](#) 
- [SNMP Printer sensor](#) 
- [SNMP QNAP Logical Disk sensor](#) 
- [SNMP QNAP Physical Disk sensor](#) 
- [SNMP QNAP System Health sensor](#) 
- [SNMP RMON sensor](#) 
- [SNMP SonicWall System Health sensor](#) 
- [SNMP SonicWall VPN Traffic sensor](#) 
- [SNMP Synology Logical Disk sensor](#) 
- [SNMP Synology Physical Disk sensor](#) 
- [SNMP Synology System Health sensor](#) 
- [SNMP System Uptime sensor](#) 
- [SNMP Traffic sensor](#) 
- [SNMP Trap Receiver sensor](#) 
- [SNMP Windows Service sensor](#) 
- [SNTP sensor](#) 
- [Soffico Orchestra Channel Health sensor](#) 
- [SSH Disk Free sensor](#) 
- [SSH INodes Free sensor](#) 

Notification Trigger	Supported Sensors
	<ul style="list-style-type: none"> ▪ SSH Load Average sensor  ▪ SSH Meminfo sensor  ▪ SSH Remote Ping sensor  ▪ SSH SAN Enclosure sensor  ▪ SSH SAN Logical Disk sensor  ▪ SSH SAN Physical Disk sensor  ▪ SSH SAN System Health sensor  ▪ SSH Script sensor  ▪ SSH Script Advanced sensor  ▪ SSL Certificate sensor  ▪ SSL Security Check sensor  ▪ Syslog Receiver sensor  ▪ System Health sensor  ▪ TFTP sensor  ▪ Traceroute Hop Count sensor  ▪ Veeam Backup Job Status sensor  ▪ VMware Datastore (SOAP) sensor  ▪ VMware Host Hardware (WBEM) sensor  ▪ VMware Host Hardware Status (SOAP) sensor  ▪ VMware Host Performance (SOAP) sensor  ▪ VMware Virtual Machine (SOAP) sensor  ▪ Windows CPU Load sensor  ▪ Windows IIS 6.0 SMTP Received sensor  ▪ Windows IIS 6.0 SMTP Sent sensor  ▪ Windows IIS Application sensor  ▪ Windows MSMQ Queue Length sensor  ▪ Windows Network Card sensor  ▪ Windows Pagefile sensor  ▪ Windows Physical Disk I/O sensor  ▪ Windows Print Queue sensor  ▪ Windows Process sensor 

Notification Trigger

Supported Sensors









- [Windows System Uptime sensor](#) 
- [Windows Updates Status \(PowerShell\) sensor](#) 
- [WMI Battery sensor](#) 
- [WMI Custom sensor](#) 
- [WMI Custom String sensor](#) 
- [WMI Disk Health sensor](#) 
- [WMI Event Log sensor](#) 
- [WMI Exchange Server sensor](#) 
- [WMI Exchange Transport Queue sensor](#) 
- [WMI File sensor](#) 
- [WMI Free Disk Space \(Multi Disk\) sensor](#) 
- [WMI HDD Health sensor](#) 
- [WMI Logical Disk I/O sensor](#) 
- [WMI Memory sensor](#) 
- [WMI Microsoft SQL Server 2005 sensor](#) 
- [WMI Microsoft SQL Server 2008 sensor](#) 
- [WMI Microsoft SQL Server 2012 sensor](#) 
- [WMI Microsoft SQL Server 2014 sensor](#) 
- [WMI Microsoft SQL Server 2016 sensor](#) 
- [WMI Microsoft SQL Server 2017 sensor](#) 
- [WMI Microsoft SQL Server 2019 sensor](#) 
- [WMI Remote Ping sensor](#) 
- [WMI Security Center sensor](#) 
- [WMI Service sensor](#) 
- [WMI Share sensor](#) 
- [WMI SharePoint Process sensor](#) 
- [WMI Storage Pool sensor](#) 
- [WMI Terminal Services \(Windows 2008+\) sensor](#) 
- [WMI Terminal Services \(Windows XP/Vista/2003\) sensor](#) 
- [WMI UTC Time sensor](#) 
- [WMI Vital System Data v2 sensor](#) 























Notification Trigger	Supported Sensors
Speed trigger	<ul style="list-style-type: none"> ▪ WMI Volume sensor  ▪ WSUS Statistics sensor  ▪ Zoom Service Status sensor  ▪ Event Log (Windows API) sensor  ▪ HTTP Apache ModStatus Totals sensor  ▪ HTTP Push Count sensor  ▪ IPFIX sensor  ▪ IPFIX (Custom) sensor  ▪ jFlow v5 sensor  ▪ jFlow v5 (Custom) sensor  ▪ NetApp I/O sensor  ▪ NetApp LIF sensor  ▪ NetApp NIC sensor  ▪ NetApp Physical Disk sensor  ▪ NetFlow v5 sensor  ▪ NetFlow v5 (Custom) sensor  ▪ NetFlow v9 sensor  ▪ NetFlow v9 (Custom) sensor  ▪ Packet Sniffer sensor  ▪ Packet Sniffer (Custom) sensor  ▪ sFlow sensor  ▪ sFlow (Custom) sensor  ▪ SNMP Cisco ASA VPN Traffic sensor  ▪ SNMP Cisco CBQoS sensor  ▪ SNMP HPE ProLiant Network Interface sensor  ▪ SNMP Linux Physical Disk sensor  ▪ SNMP NetApp I/O sensor  ▪ SNMP NetApp Logical Unit sensor  ▪ SNMP NetApp Network Interface sensor  ▪ SNMP RMON sensor  ▪ SNMP SonicWall VPN Traffic sensor 

Notification Trigger

Supported Sensors

Volume trigger

- [SNMP Traffic sensor](#)  3094
- [SNMP Trap Receiver sensor](#)  3107
- [Syslog Receiver sensor](#)  3326
- [Windows IIS 6.0 SMTP Received sensor](#)  3453
- [Windows IIS 6.0 SMTP Sent sensor](#)  3464
- [Windows IIS Application sensor](#)  3475
- [Windows Network Card sensor](#)  3499
- [WMI Event Log sensor](#)  3634




- [Event Log \(Windows API\) sensor](#)  980
- [HTTP Apache ModStatus Totals sensor](#)  1235
- [IPFIX sensor](#)  1458
- [IPFIX \(Custom\) sensor](#)  1475
- [jFlow v5 sensor](#)  1504
- [jFlow v5 \(Custom\) sensor](#)  1521
- [NetApp I/O sensor](#)  1707
- [NetApp LIF sensor](#)  1722
- [NetApp NIC sensor](#)  1751
- [NetApp Physical Disk sensor](#)  1765
- [NetFlow v5 sensor](#)  1824
- [NetFlow v5 \(Custom\) sensor](#)  1841
- [NetFlow v9 sensor](#)  1856
- [NetFlow v9 \(Custom\) sensor](#)  1873
- [Packet Sniffer sensor](#)  1956
- [Packet Sniffer \(Custom\) sensor](#)  1972
- [sFlow sensor](#)  2196
- [sFlow \(Custom\) sensor](#)  2213
- [SNMP Cisco ASA VPN Traffic sensor](#)  2348
- [SNMP Cisco CBQoS sensor](#)  2372
- [SNMP HPE ProLiant Network Interface sensor](#)  2673
- [SNMP Linux Physical Disk sensor](#)  2844
- [SNMP NetApp I/O sensor](#)  2890

Notification Trigger	Supported Sensors
Notification Trigger	<ul style="list-style-type: none"> ▪ SNMP NetApp Logical Unit sensor ²⁹¹² ▪ SNMP NetApp Network Interface sensor ²⁹²⁴ ▪ SNMP RMON sensor ³⁰²¹ ▪ SNMP SonicWall VPN Traffic sensor ³⁰⁴³ ▪ SNMP Traffic sensor ³⁰⁹⁴ ▪ SNMP Trap Receiver sensor ³¹⁰⁷ ▪ Syslog Receiver sensor ³³²⁶ ▪ Windows IIS 6.0 SMTP Received sensor ³⁴⁵³ ▪ Windows IIS 6.0 SMTP Sent sensor ³⁴⁶⁴ ▪ Windows IIS Application sensor ³⁴⁷⁵ ▪ Windows Network Card sensor ³⁴⁹⁹ ▪ WMI Event Log sensor ³⁶³⁴
Threshold trigger	<ul style="list-style-type: none"> ▪ Active Directory Replication Errors sensor ⁴⁷⁷ ▪ ADO SQL v2 sensor ⁴⁹⁰ ▪ Amazon CloudWatch Alarm sensor ⁵⁰⁹ ▪ Amazon CloudWatch EBS sensor ⁵²³ ▪ Amazon CloudWatch EC2 sensor ⁵³⁸ ▪ Amazon CloudWatch ElastiCache sensor ⁵⁵⁴ ▪ Amazon CloudWatch ELB sensor ⁵⁷⁰ ▪ Amazon CloudWatch RDS sensor ⁵⁸⁵ ▪ Amazon CloudWatch SNS sensor ⁶⁰¹ ▪ Amazon CloudWatch SQS sensor ⁶¹⁵ ▪ AWS Cost sensor ⁶³⁰ ▪ Business Process sensor ⁶⁴⁴ ▪ Cisco IP SLA sensor ⁶⁵⁸ ▪ Citrix XenServer Host sensor ⁶⁷⁰ ▪ Citrix XenServer Virtual Machine sensor ⁶⁸¹ ▪ Cloud HTTP sensor ⁶⁹² ▪ Cloud HTTP v2 sensor ⁷⁰⁵ ▪ Cloud Ping sensor ⁷²⁰ ▪ Cloud Ping v2 sensor ⁷³¹

Notification Trigger

































Supported Sensors
































- [Cluster Health sensor](#)^[744]
- [Common SaaS sensor](#)^[751]
- [Core Health sensor](#)^[760]
- [Core Health \(Autonomous\) sensor](#)^[769]
- [Dell EMC Unity Enclosure Health v2 sensor](#)^[778]
- [Dell EMC Unity File System v2 sensor](#)^[790]
- [Dell EMC Unity Storage Capacity v2 sensor](#)^[802]
- [Dell EMC Unity Storage LUN v2 sensor](#)^[813]
- [Dell EMC Unity Storage Pool v2 sensor](#)^[825]
- [Dell EMC Unity VMware Datastore v2 sensor](#)^[838]
- [Dell PowerVault MDi Logical Disk sensor](#)^[850]
- [Dell PowerVault MDi Physical Disk sensor](#)^[861]
- [DHCP sensor](#)^[873]
- [DICOM Bandwidth sensor](#)^[885]
- [DICOM C-ECHO sensor](#)^[896]
- [DICOM Query/Retrieve sensor](#)^[907]
- [DNS sensor](#)^[919]
- [DNS v2 sensor](#)^[930]
- [Docker Container Status sensor](#)^[943]
- [Dropbox sensor](#)^[956]
- [Enterprise Virtual Array sensor](#)^[968]
- [Exchange Backup \(PowerShell\) sensor](#)^[993]
- [Exchange Database \(PowerShell\) sensor](#)^[1004]
- [Exchange Database DAG \(PowerShell\) sensor](#)^[1017]
- [Exchange Mail Queue \(PowerShell\) sensor](#)^[1030]
- [Exchange Mailbox \(PowerShell\) sensor](#)^[1041]
- [Exchange Public Folder \(PowerShell\) sensor](#)^[1052]
- [EXE/Script sensor](#)^[1065]
- [EXE/Script Advanced sensor](#)^[1077]
- [File sensor](#)^[1092]
- [File Content sensor](#)^[1104]
- [Folder sensor](#)^[1116]

Notification Trigger	Supported Sensors
	<ul style="list-style-type: none"> ▪ FTP sensor  ▪ FTP Server File Count sensor  ▪ Google Analytics sensor  ▪ Google Drive sensor  ▪ HL7 sensor  ▪ HTTP sensor  ▪ HTTP Advanced sensor  ▪ HTTP Apache ModStatus PerfStats sensor  ▪ HTTP Content sensor  ▪ HTTP Full Web Page sensor  ▪ HTTP Push Count sensor  ▪ HTTP Push Data sensor  ▪ HTTP Transaction sensor  ▪ HTTP XML/REST Value sensor  ▪ Hyper-V Cluster Shared Volume Disk Free sensor  ▪ Hyper-V Host Server sensor  ▪ Hyper-V Virtual Machine sensor  ▪ Hyper-V Virtual Network Adapter sensor  ▪ Hyper-V Virtual Storage Device sensor  ▪ IMAP sensor  ▪ IP on DNS Blacklist sensor  ▪ IPMI System Health sensor  ▪ LDAP sensor  ▪ Microsoft 365 Service Status sensor  ▪ Microsoft 365 Service Status Advanced sensor  ▪ Microsoft Azure Subscription Cost sensor  ▪ Microsoft Azure Virtual Machine sensor  ▪ Microsoft OneDrive sensor  ▪ Microsoft SQL v2 sensor  ▪ Modbus TCP Custom sensor  ▪ MQTT Round Trip sensor  ▪ MQTT Statistics sensor 

Notification Trigger
































Supported Sensors
































- [MQTT Subscribe Custom sensor](#) 
- [MySQL v2 sensor](#) 
- [NetApp Aggregate sensor](#) 
- [NetApp LUN sensor](#) 
- [NetApp NIC sensor](#) 
- [NetApp Physical Disk sensor](#) 
- [NetApp SnapMirror sensor](#) 
- [NetApp System Health sensor](#) 
- [NetApp Volume sensor](#) 
- [OPC UA Certificate sensor](#) 
- [OPC UA Custom sensor](#) 
- [OPC UA Server Status sensor](#) 
- [Oracle SQL v2 sensor](#) 
- [Oracle Tablespace sensor](#) 
- [PerfCounter Custom sensor](#) 
- [PerfCounter IIS Application Pool sensor](#) 
- [Ping sensor](#) 
- [Ping Jitter sensor](#) 
- [POP3 sensor](#) 
- [Port sensor](#) 
- [Port Range sensor](#) 
- [PostgreSQL sensor](#) 
- [Probe Health sensor](#) 
- [Python Script Advanced sensor](#) 
- [QoS \(Quality of Service\) One Way sensor](#) 
- [QoS \(Quality of Service\) Round Trip sensor](#) 
- [RADIUS v2 sensor](#) 
- [RDP \(Remote Desktop\) sensor](#) 
- [REST Custom sensor](#) 
- [Sensor Factory sensor](#) 
- [SFTP Secure File Transfer Protocol sensor](#) 
- [Share Disk Free sensor](#) 

































Notification Trigger	Supported Sensors
	<ul style="list-style-type: none"> ▪ SIP Options Ping sensor  ▪ SMTP sensor  ▪ SMTP&IMAP Round Trip sensor  ▪ SMTP&POP3 Round Trip sensor  ▪ SNMP APC Hardware sensor  ▪ SNMP Buffalo TS System Health sensor  ▪ SNMP Cisco ADSL sensor  ▪ SNMP Cisco ASA VPN Connections sensor  ▪ SNMP Cisco ASA VPN Users sensor  ▪ SNMP Cisco System Health sensor  ▪ SNMP Cisco UCS Blade sensor  ▪ SNMP Cisco UCS Chassis sensor  ▪ SNMP Cisco UCS Physical Disk sensor  ▪ SNMP Cisco UCS System Health sensor  ▪ SNMP CPU Load sensor  ▪ SNMP Custom sensor  ▪ SNMP Custom Advanced sensor  ▪ SNMP Custom String sensor  ▪ SNMP Custom String Lookup sensor  ▪ SNMP Custom Table sensor  ▪ SNMP Dell EqualLogic Logical Disk sensor  ▪ SNMP Dell EqualLogic Member Health sensor  ▪ SNMP Dell EqualLogic Physical Disk sensor  ▪ SNMP Dell Hardware sensor  ▪ SNMP Dell PowerEdge Physical Disk sensor  ▪ SNMP Dell PowerEdge System Health sensor  ▪ SNMP Disk Free sensor  ▪ SNMP Fujitsu System Health v2 sensor  ▪ SNMP Hardware Status sensor  ▪ SNMP HP LaserJet Hardware sensor  ▪ SNMP HPE BladeSystem Blade sensor 
































Notification Trigger

Supported Sensors

- [SNMP HPE BladeSystem Enclosure System Health sensor](#) 
- [SNMP HPE ProLiant Logical Disk sensor](#) 
- [SNMP HPE ProLiant Memory Controller sensor](#) 
- [SNMP HPE ProLiant Physical Disk sensor](#) 
- [SNMP HPE ProLiant System Health sensor](#) 
- [SNMP IBM System X Logical Disk sensor](#) 
- [SNMP IBM System X Physical Disk sensor](#) 
- [SNMP IBM System X Physical Memory sensor](#) 
- [SNMP IBM System X System Health sensor](#) 
- [SNMP interSeptor Pro Environment sensor](#) 
- [SNMP Juniper NS System Health sensor](#) 
- [SNMP LenovoEMC Physical Disk sensor](#) 
- [SNMP LenovoEMC System Health sensor](#) 
- [SNMP Library sensor](#) 
- [SNMP Linux Disk Free sensor](#) 
- [SNMP Linux Load Average sensor](#) 
- [SNMP Linux Meminfo sensor](#) 
- [SNMP Linux Physical Disk sensor](#) 
- [SNMP Memory sensor](#) 
- [SNMP NetApp Disk Free sensor](#) 
- [SNMP NetApp Enclosure sensor](#) 
- [SNMP NetApp License sensor](#) 
- [SNMP NetApp Logical Unit sensor](#) 
- [SNMP NetApp System Health sensor](#) 
- [SNMP Nutanix Cluster Health sensor](#) 
- [SNMP Nutanix Hypervisor sensor](#) 
- [SNMP Poseidon Environment sensor](#) 
- [SNMP Printer sensor](#) 
- [SNMP QNAP Logical Disk sensor](#) 
- [SNMP QNAP Physical Disk sensor](#) 
- [SNMP QNAP System Health sensor](#) 
























Notification Trigger	Supported Sensors
	<ul style="list-style-type: none"> ▪ SNMP SonicWall System Health sensor  ▪ SNMP Synology Logical Disk sensor  ▪ SNMP Synology Physical Disk sensor  ▪ SNMP Synology System Health sensor  ▪ SNMP System Uptime sensor  ▪ SNMP Windows Service sensor  ▪ SNTP sensor  ▪ Soffico Orchestra Channel Health sensor  ▪ SSH Disk Free sensor  ▪ SSH INodes Free sensor  ▪ SSH Load Average sensor  ▪ SSH Meminfo sensor  ▪ SSH Remote Ping sensor  ▪ SSH SAN Enclosure sensor  ▪ SSH SAN Logical Disk sensor  ▪ SSH SAN Physical Disk sensor  ▪ SSH SAN System Health sensor  ▪ SSH Script sensor  ▪ SSH Script Advanced sensor  ▪ SSL Certificate sensor  ▪ SSL Security Check sensor  ▪ System Health sensor  ▪ TFTP sensor  ▪ Traceroute Hop Count sensor  ▪ Veeam Backup Job Status sensor  ▪ VMware Datastore (SOAP) sensor  ▪ VMware Host Hardware (WBEM) sensor  ▪ VMware Host Hardware Status (SOAP) sensor  ▪ VMware Host Performance (SOAP) sensor  ▪ VMware Virtual Machine (SOAP) sensor  ▪ Windows CPU Load sensor 




















Notification Trigger	Supported Sensors
	<ul style="list-style-type: none"> ▪ Windows IIS Application sensor  3475 ▪ Windows MSMQ Queue Length sensor  3487 ▪ Windows Pagefile sensor  3512 ▪ Windows Physical Disk I/O sensor  3622 ▪ Windows Print Queue sensor  3535 ▪ Windows Process sensor  3549 ▪ Windows System Uptime sensor  3561 ▪ Windows Updates Status (PowerShell) sensor  3572 ▪ WMI Battery sensor  3585 ▪ WMI Custom sensor  3596 ▪ WMI Custom String sensor  3608 ▪ WMI Disk Health sensor  3622 ▪ WMI Exchange Server sensor  3648 ▪ WMI Exchange Transport Queue sensor  3660 ▪ WMI File sensor  3674 ▪ WMI Free Disk Space (Multi Disk) sensor  3685 ▪ WMI Logical Disk I/O sensor  3713 ▪ WMI Memory sensor  3725 ▪ WMI Microsoft SQL Server 2005 sensor  3736 ▪ WMI Microsoft SQL Server 2008 sensor  3749 ▪ WMI Microsoft SQL Server 2012 sensor  3762 ▪ WMI Microsoft SQL Server 2014 sensor  3775 ▪ WMI Microsoft SQL Server 2016 sensor  3788 ▪ WMI Microsoft SQL Server 2017 sensor  3801 ▪ WMI Microsoft SQL Server 2019 sensor  3814 ▪ WMI Remote Ping sensor  3827 ▪ WMI Security Center sensor  3837 ▪ WMI Service sensor  3847 ▪ WMI Share sensor  3858 ▪ WMI SharePoint Process sensor  3871 ▪ WMI Storage Pool sensor  3882 ▪ WMI Terminal Services (Windows 2008+) sensor  3895

Notification Trigger	Supported Sensors
Change trigger	<ul style="list-style-type: none"> ▪ WMI Terminal Services (Windows XP/Vista/2003) sensor  ▪ WMI UTC Time sensor  ▪ WMI Vital System Data v2 sensor  ▪ WMI Volume sensor  ▪ Active Directory Replication Errors sensor  ▪ ADO SQL v2 sensor  ▪ Amazon CloudWatch Alarm sensor  ▪ Amazon CloudWatch EBS sensor  ▪ Amazon CloudWatch EC2 sensor  ▪ Amazon CloudWatch ElastiCache sensor  ▪ Amazon CloudWatch ELB sensor  ▪ Amazon CloudWatch RDS sensor  ▪ Amazon CloudWatch SNS sensor  ▪ Amazon CloudWatch SQS sensor  ▪ Citrix XenServer Host sensor  ▪ Citrix XenServer Virtual Machine sensor  ▪ DHCP sensor  ▪ DICOM Bandwidth sensor  ▪ DICOM C-ECHO sensor  ▪ DICOM Query/Retrieve sensor  ▪ Event Log (Windows API) sensor  ▪ Exchange Backup (PowerShell) sensor  ▪ Exchange Database (PowerShell) sensor  ▪ Exchange Database DAG (PowerShell) sensor  ▪ Exchange Mail Queue (PowerShell) sensor  ▪ Exchange Mailbox (PowerShell) sensor  ▪ Exchange Public Folder (PowerShell) sensor  ▪ EXE/Script sensor  ▪ EXE/Script Advanced sensor  ▪ File sensor  ▪ File Content sensor 












Notification Trigger




Supported Sensors

- [Folder sensor](#)  1116
- [FTP Server File Count sensor](#)  1140
- [HL7 sensor](#)  1180
- [HTTP Advanced sensor](#)  1204
- [HTTP Content sensor](#)  1247
- [HTTP Data Advanced sensor](#)  1261
- [HTTP XML/REST Value sensor](#)  1355
- [Hyper-V Cluster Shared Volume Disk Free sensor](#)  1372
- [IP on DNS Blacklist sensor](#)  1448
- [IPMI System Health sensor](#)  1491
- [Microsoft SQL v2 sensor](#)  1607
- [MySQL v2 sensor](#)  1674
- [NetApp Aggregate sensor](#)  1693
- [NetApp I/O sensor](#)  1707
- [NetApp LIF sensor](#)  1722
- [NetApp LUN sensor](#)  1736
- [NetApp NIC sensor](#)  1751
- [NetApp Physical Disk sensor](#)  1765
- [NetApp SnapMirror sensor](#)  1779
- [NetApp System Health sensor](#)  1794
- [NetApp Volume sensor](#)  1909
- [Oracle SQL v2 sensor](#)  1923
- [Oracle Tablespace sensor](#)  1942
- [Ping Jitter sensor](#)  2020
- [Port Range sensor](#)  2054
- [PostgreSQL sensor](#)  2064
- [RADIUS v2 sensor](#)  2129
- [SIP Options Ping sensor](#)  2251
- [SNMP APC Hardware sensor](#)  2305
- [SNMP Custom sensor](#)  2453
- [SNMP Custom String sensor](#)  2475
- [SNMP Dell Hardware sensor](#)  2549

Notification Trigger	Supported Sensors
	<ul style="list-style-type: none">▪ SNMP HP LaserJet Hardware sensor ▪ SNMP Library sensor ▪ SSH Script sensor ▪ SSH Script Advanced sensor ▪ Traceroute Hop Count sensor ▪ VMware Datastore (SOAP) sensor ▪ VMware Host Hardware Status (SOAP) sensor ▪ VMware Host Performance (SOAP) sensor ▪ VMware Virtual Machine (SOAP) sensor ▪ Windows MSMQ Queue Length sensor ▪ Windows Print Queue sensor ▪ Windows Updates Status (PowerShell) sensor ▪ WMI Custom sensor ▪ WMI Custom String sensor ▪ WMI Event Log sensor ▪ WMI File sensor ▪ WMI Security Center sensor ▪ WMI Service sensor ▪ WSUS Statistics sensor 

Appendix

- [Differences between PRTG on premises and PRTG Hosted Monitor](#) 
- [Glossary](#) 
- [Legal Notices](#) 
- [List of Abbreviations](#) 
- [List of Available Sensor Types](#) 
- [List of Default Ports](#) 
- [List of Icons](#) 
- [List of New Sensors](#) 
- [List of Notification Triggers and Supported Sensors](#) 
- [List of Placeholders for Notifications](#) 
- [List of Sensors by Performance Impact](#) 

- [List of Sensors with IPv6 Support](#)  4683
- [List of Standard Lookup Files](#)  4724
- [Support and Troubleshooting](#)  4738

15.10 List of Placeholders for Notifications

Here you can find a list of all placeholders for notifications. You can use placeholders in different settings fields of a notification when editing [notification templates](#).

- [Notification Settings Fields](#)
- [Placeholders in Summarized Notifications](#)
- [List of Available Placeholders](#)

Notification Settings Fields

Notification	Settings field
Send Email	<ul style="list-style-type: none"> ▪ Subject ▪ Custom Text if you select the option Custom text
Add Entry to Event Log	Event Log Message
Send SMS/Pager Message	Message
Execute HTTP Action	Payload if you select the options POST, PUT, or PATCH
Execute Program	Parameters
Send Syslog Message	Message
Send SNMP Trap	Message
Send Amazon Simple Notification Service Message	Message
Assign Ticket	<ul style="list-style-type: none"> ▪ Subject ▪ Content
Send Push Notification	Message
Send Microsoft Teams Message	<ul style="list-style-type: none"> ▪ Title ▪ Subtitle
Send Slack Message	<ul style="list-style-type: none"> ▪ Sender Name ▪ Title ▪ Subtitle
Send MQTT Publish Notification	Message

- ❶ Placeholders are **not** case sensitive.
- ❷ Depending on **where** you use a placeholder in a notification, PRTG might resolve the placeholder differently. A resolved placeholder in the **body** of a notification, for example, can contain more information compared to when PRTG resolves the same placeholder in the **subject** of a notification. The reason for this is to save space in the subject line.

Placeholders in Summarized Notifications

Placeholders in summarized notifications have a limited functionality:

- PRTG does **not** resolve placeholders in the subject field of summarized notifications if more than one trigger was evoked during the summarized time span. An exception are the placeholders %sitename and %summarycount. These are **always resolved** in summarized notifications.
- If only one event is triggered during the time span you defined, PRTG does not send a summarized notification, it only sends a common notification. A summarized notification requires at least two triggered events.

List of Available Placeholders



Placeholder	Resolved Content	Synonym	Comment
%colorofstate	Color of the current object status (hex code)		Might not work in older versions.
%company	Copyright string of Paessler AG		
%comments	Comments entered for the sensor	%commentssensor	As of PRTG 15.4.21, resolved placeholders contain the heading Sensor Comments .
%commentssensor	Comments entered for the sensor	%comments	As of PRTG 15.4.21, resolved placeholders contain the heading Sensor Comments .
%commentsdevice	Comments entered for the parent device		As of PRTG 15.4.21, resolved placeholders contain the heading Device Comments .
%commentsgroup	Comments entered for the parent group		As of PRTG 15.4.21, resolved placeholders contain the heading Group Comments .






Placeholder	Resolved Content	Synonym	Comment
%commentsprobe	Comments entered for the parent probe		Available as of PRTG 12.4. As of PRTG 15.4.21, resolved placeholders contain the heading Probe Comments .
%coverage	Covered time span		Might not work in older versions.
%cumsince	Since when data has been accumulated		
%date	An event's date in the PRTG core server system's timezone		
%datetime	An event's date and time in the PRTG core server system's timezone		
%device	Name of the device in which the event was triggered	%server	
%deviceid	ID number of the device in which the event was triggered		
%down	Time the item was down		
%downtime	Accumulated downtime		
%elapsed_lastcheck	Elapsed time since the sensor's last scan		Available as of PRTG 20.1.57.
%elapsed_lastdown	Elapsed time since the sensor last showed a Down status		Available as of PRTG 20.1.57.

Placeholder	Resolved Content	Synonym	Comment
%elapsed_lastup	Elapsed time since the sensor last showed an Up status		Available as of PRTG 20.1.57.
%group	Group in which the event was triggered		
%groupid	ID number of the group in which the event was triggered		
%history	History of sensor events		
%home	URL of the PRTG web server		
%host	IP or DNS name of the device that triggered the event		As of PRTG 13.x.7, the placeholder can be used as Agent IP in SNMP trap notifications sent by PRTG.
%iconofstate	File name including the extension of the icon for the current object status		Might not work in older versions.
%lastcheck	Point in time of the sensor's last scan including time stamp		
%lastdown	Point in time when the sensor last showed a Down status, including the time stamp		
%lastmessage	Message that the sensor sent the last time	%message	
%laststatus	Current sensor status		Available as of PRTG 20.1.57.

Placeholder	Resolved Content	Synonym	Comment
%lastup	Point in time when the sensor last showed an Up status, including the time stamp		
%lastvalue	Value that the sensor sent the last time		
%linkprobe	URL of the probe that triggered the event		Might not work in older versions.
%linkgroup	URL of the group that triggered the event		Might not work in older versions.
%linkdevice	URL of the device that triggered the event		Might not work in older versions.
%linksensor	URL of the sensor that triggered the event		Might not work in older versions.
%location	Location of the device or server for which the event was triggered		
%message	Message that the sensor sent the last time	%lastmessage	
%name	Name of the sensor that triggered the event, including the sensor type	%sensor	
%nodename	Name of the node if PRTG runs in a cluster		Might not work in older versions.
%objecttags	All tags of a sensor		Available as of PRTG 20.1.56.
%parenttags	All tags of a sensor's parent objects		Available as of PRTG 20.1.56.

Placeholder	Resolved Content	Synonym	Comment
%prio	A sensor's priority setting	%priority	
%priority	A sensor's priority setting	%prio	
%probe	Probe under which the event was triggered		
%probeid	ID number of the probe under which the event was triggered		
%programname	Official name of PRTG		
%programversion	Program version of PRTG		
%sensor	Name of the sensor that triggered the event, including the sensor type	%name	
%sensorid	ID number of the sensor that triggered the event		
%server	Name of the device under which the event was triggered	%device	
%serviceurl	Service URL configured for the device under which the event was triggered		Available as of PRTG 9.1.
%settings	Miscellaneous sensor settings, such as the user name for Windows, HTTP, POP3 credentials, and so on		

Placeholder	Resolved Content	Synonym	Comment
%shortname	Name of the sensor that triggered the event		
%since	Point in time since the current object status has been active	%statesince	
%sitename	Name of the PRTG web server		
%statesince	Point in time since the current object status has been active	%since	
%status	Old sensor status and current sensor status		
%summarycount	Number of events triggered during the defined time span		<p> For summarized notifications only.</p>
%syslogerrors	Max. last 20 syslog entries before the notification trigger		<p>Available as of PRTG 14.x.10.</p> <p> Works only with Syslog Receiver sensors <small>3326</small>.</p> <p> Can only be used in the Custom Content field of Send Email notifications.</p>
%syslogmessages	Max. last 20 syslog entries before the notification trigger		<p>Available as of PRTG 14.x.10.</p> <p> Works only with Syslog Receiver sensors <small>3326</small>.</p> <p> Can only be used in the Custom Content field of Send Email notifications.</p>

Placeholder	Resolved Content	Synonym	Comment
%syslogwarnings	Max. last 20 syslog entries before the notification trigger		<p>Available as of PRTG 14.x.10.</p> <p> Works only with Syslog Receiver sensors  <small>3326</small>.</p> <p> Can only be used in the Custom Content field of Send Email notifications.</p>
%systemdatetime	Date and time when the notification was sent in the PRTG core server system's time zone		
%tags	All tags of a sensor and its parent objects		Available as of PRTG 20.1.56.
%time	An event's time in the PRTG core server system's time zone		
%timezone	Time zone name of the PRTG core server system		
%toaddress	Address to which the notification was sent		
%traperrors	Max. last 20 SNMP trap entries before the notification trigger		<p>Available as of PRTG 14.x.10.</p> <p> Works only with SNMP Trap Receiver sensors  <small>3107</small>.</p> <p> Can only be used in the Custom Content field of Send Email notifications.</p>
%trapmessages	Max. last 20 SNMP trap entries before the notification trigger		Available as of PRTG 14.x.10.

Placeholder	Resolved Content	Synonym	Comment
			<p>i Works only with SNMP Trap Receiver sensors ³¹⁰⁷.</p> <p>i Can only be used in the Custom Content field of Send Email notifications.</p>
%trapwarnings	Max. last 20 SNMP trap entries before the notification trigger		<p>Available as of PRTG 14.x.10.</p> <p>i Works only with SNMP Trap Receiver sensors ³¹⁰⁷.</p> <p>i Can only be used in the Custom Content field of Send Email notifications.</p>
%uptime	Accumulated uptime		





i As of PRTG 15.4.21, PRTG uses default content in HTML email notifications. You can still change the content of emails in plain text in the Send Email notification settings and also use placeholders there.

i As of PRTG 16.x.24, the placeholder %state has been deprecated. You can use the placeholder %status with the same functionality instead.

■ For a list of placeholders that are available for EXE/Script and other custom sensors, as well as for command-line parameters, see section [Custom Sensors](#) ⁴⁴³⁷.

Appendix

- [Differences between PRTG on premises and PRTG Hosted Monitor](#) ⁴⁵⁴²
- [Glossary](#) ⁴⁵⁶⁰
- [Legal Notices](#) ⁴⁵⁶⁹
- [List of Abbreviations](#) ⁴⁵⁷¹
- [List of Available Sensor Types](#) ⁴⁵⁸¹
- [List of Default Ports](#) ⁴⁶³²
- [List of Icons](#) ⁴⁶³⁶
- [List of New Sensors](#) ⁴⁶³⁸
- [List of Notification Triggers and Supported Sensors](#) ⁴⁶³⁹
- [List of Placeholders for Notifications](#) ⁴⁶⁶²





- [List of Sensors by Performance Impact](#)  4672
- [List of Sensors with IPv6 Support](#)  4693
- [List of Standard Lookup Files](#)  4724
- [Support and Troubleshooting](#)  4738

15.11 List of Sensors by Performance Impact









Here you can find a list of sensors sorted by their performance impact.
















i You can also see a sensor's performance impact in the Add Sensor dialog or on a sensor's Overview tab.




A sensor can have one of the following types of performance impact:

- [Very Low Performance Impact](#) 
- [Low Performance Impact](#) 
- [Medium Performance Impact](#) 
- [High Performance Impact](#) 
- [Very High Performance Impact](#)

Very Low Performance Impact

Sensor	Description
Cluster Health sensor 	Monitors the health of a cluster and indicates the system health status of PRTG.
Common SaaS sensor 	Monitors the availability of several SaaS providers.
Core Health sensor 	Monitors internal PRTG parameters and shows the status of the PRTG core server.
Core Health (Autonomous) sensor 	Monitors internal PRTG parameters and shows the status of the PRTG core server.
Dell EMC Unity Enclosure Health v2 sensor 	Monitors the health of an enclosure on a Dell EMC storage system via the REST API.
Dell EMC Unity File System v2 sensor 	Monitors a file system on a Dell EMC storage system via the REST API.
Dell EMC Unity Storage Capacity v2 sensor 	Monitors a Dell EMC storage system via the REST API.
Dell EMC Unity Storage LUN v2 sensor 	Monitors a LUN on a Dell EMC storage system via the REST API.

Sensor	Description
Dell EMC Unity Storage Pool v2 sensor 	Monitors a storage pool on a Dell EMC storage system via the REST API.
Dell EMC Unity VMware Datastore v2 sensor 	Monitors a VMware datastore on a Dell EMC storage system via the REST API.
DNS sensor 	Monitors a DNS server. It resolves a domain name and compares it to a specific IP address.
Microsoft Azure Subscription Cost sensor 	Monitors the cost in a Microsoft Azure subscription.
Microsoft Azure Virtual Machine sensor 	Monitors the status of a virtual machine in a Microsoft Azure subscription.
Modbus TCP Custom sensor 	Monitors up to five values returned by a Modbus TCP server.
NetApp Aggregate sensor 	Monitors the status of a NetApp cDOT or ONTAP storage aggregate accessing the API via SOAP.
NetApp I/O sensor 	Monitors input and output operations of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp LIF sensor 	Monitors logical interfaces of a NetApp cDOT or ONTAP cluster accessing the API via SOAP.
NetApp LUN sensor 	Monitors the LUN of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp NIC sensor 	Monitors the NIC of a NetApp cDOT or ONTAP cluster accessing the API via SOAP.
NetApp Physical Disk sensor 	Monitors disks of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp SnapMirror sensor 	Monitors SnapMirror relationships of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp System Health sensor 	Monitors the health of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp Volume sensor 	Monitors volumes on a NetApp cDOT or ONTAP storage system accessing the API via SOAP.







Sensor	Description
OPC UA Certificate sensor 	Monitors the certificate of an OPC UA server.
OPC UA Server Status sensor 	Monitors the server status, uptime, and diagnostic information of an OPC UA server.
Ping sensor 	Sends an ICMP echo request ("Ping") from the probe system to the device it is created on to monitor the availability of a device.
Port sensor 	Monitors a network service by connecting to its port.
Port Range sensor 	Monitors a network service by connecting to various TCP/IP ports.
Probe Health sensor 	Monitors internal PRTG parameters and shows the status of the probe system.
SNMP APC Hardware sensor 	Monitors performance counters on an APC UPS device via SNMP.
SNMP Cisco ASA VPN Connections sensor 	Monitors the VPN connections on a Cisco Adaptive Security Appliance via SNMP.
SNMP Cisco CBQoS sensor 	Monitors network parameters using Cisco's CBQoS via SNMP.
SNMP Cisco UCS Blade sensor 	Monitors the health status of a Cisco UCS blade server via SNMP.
SNMP Cisco UCS Chassis sensor 	Monitors the health status of the chassis of a Cisco UCS device via SNMP.
SNMP Custom sensor 	Monitors a single parameter that is returned by a specific OID via SNMP.
SNMP Custom String sensor 	Monitors a string returned by a specific OID via SNMP.
SNMP Custom String Lookup sensor 	Monitors a string returned by a specific OID via SNMP and can map the string directly to a sensor status.
SNMP Dell Hardware sensor 	Monitors performance counters on a Dell hardware device via SNMP.

Sensor	Description
SNMP Dell PowerEdge System Health sensor 	Monitors the system health of a Dell PowerEdge server via SNMP.
SNMP Hardware Status sensor 	Monitors the status of a server's hardware component via SNMP.
SNMP HP LaserJet Hardware sensor 	Monitors performance counters on an HP LaserJet hardware device via SNMP.
SNMP HPE ProLiant Logical Disk sensor 	Monitors a logical disk in an HPE server via SNMP.
SNMP HPE ProLiant Memory Controller sensor 	Monitors a memory controller in an HPE server via SNMP.
SNMP IBM System X Logical Disk sensor 	Monitors a logical disk in an IBM server via SNMP.
SNMP IBM System X Physical Disk sensor 	Monitors a physical disk in an IBM server via SNMP.
SNMP IBM System X Physical Memory sensor 	Monitors the memory modules in an IBM server via SNMP.
SNMP interSeptor Pro Environment sensor 	Queries data from a Jacarta interSeptor Pro environmental monitoring system via SNMP.
SNMP LenovoEMC Physical Disk sensor 	Monitors a physical disk in a LenovoEMC NAS via SNMP.
SNMP LenovoEMC System Health sensor 	Monitors the system health of a LenovoEMC NAS via SNMP.
SNMP Library sensor 	Uses a compiled MIB file to create sensors that monitor a device via SNMP.
SNMP Linux Load Average sensor 	Monitors the system load average of a Linux/Unix system via SNMP.

Sensor	Description
SNMP Linux Meminfo sensor 	Monitors the memory usage of a Linux/Unix system via SNMP.
SNMP NetApp I/O sensor 	Monitors the IOPS on a NetApp storage system via SNMP.
SNMP NetApp System Health sensor 	Monitors the status of a NetApp storage system via SNMP.
SNMP Poseidon Environment sensor 	Monitors performance counters for environmental measurements on Poseidon hardware via SNMP.
SNMP Printer sensor 	Monitors various types of printers via SNMP.
SNMP QNAP Logical Disk sensor 	Monitors a logical disk in a QNAP NAS via SNMP.
SNMP QNAP Physical Disk sensor 	Monitors a physical disk in a QNAP NAS via SNMP.
SNMP RMON sensor 	Monitors traffic on a device using the Remote Monitoring (RMON) standard via SNMP.
SNMP SonicWall System Health sensor 	Monitors health values of a SonicWall NSA via SNMP.
SNMP SonicWall VPN Traffic sensor 	Monitors the traffic of an IPsec VPN on a SonicWall NSA via SNMP.
SNMP Synology Logical Disk sensor 	Monitors a logical disk in a Synology NAS via SNMP.
SNMP Synology Physical Disk sensor 	Monitors a physical disk in a Synology NAS via SNMP.
SNMP Synology System Health sensor 	Monitors the system health of a Synology NAS via SNMP.
SNMP System Uptime sensor 	Monitors the time that a device runs via SNMP.

Sensor	Description
SNMP Traffic sensor 	Monitors traffic on a device via SNMP.
SNMP Windows Service sensor 	Monitors a Windows service via SNMP.
SSL Certificate sensor 	Monitors the certificate of an SSL/TLS connection.
SSL Security Check sensor 	Monitors SSL/TLS connectivity to the port of a device.
System Health sensor 	Monitors internal PRTG parameters and shows the status of the probe system.
Veeam Backup Job Status sensor 	Monitors the status of all backup job runs on the Veeam Backup Enterprise Manager in the last 24 hours.
VMware Datastore (SOAP) sensor 	Monitors the disk usage of a VMware datastore via SOAP.
Zoom Service Status sensor 	Monitors the global status of all Zoom services.

Low Performance Impact



Sensor	Description
AWS Cost sensor 	Monitors the cost of an AWS account by reading its data from the AWS Cost Explorer API.
Cisco IP SLA sensor 	Monitors VoIP network parameters using IP SLAs from Cisco via SNMP.
Cloud HTTP sensor 	Monitors the response time and response code of the target server.
Cloud HTTP v2 sensor 	Monitors the response time and response code of the target server.
Cloud Ping sensor 	Monitors the response time of the target server.
Cloud Ping v2 sensor 	Monitors the response time of the target server using TCP ping.

Sensor	Description
DHCP sensor 	Monitors a DHCP server. It sends a broadcast message to the network and waits for a DHCP server to respond.
Docker Container Status sensor 	Monitors the status of a Docker container.
Dropbox sensor 	Monitors a Dropbox account using the Dropbox API and OAuth2.
EXE/Script sensor 	Runs an executable file (.exe, .dll) or a script (batch file, VBScript, PowerShell) on the probe system.
Google Analytics sensor 	Queries and monitors several metrics from a Google Analytics account using the Google API and OAuth2.
Google Drive sensor 	Monitors a Google Drive account using the Google API and OAuth2.
HTTP sensor 	Monitors a web server using HTTP to see if a website (or a specific website element) is reachable.
HTTP Apache ModStatus PerfStats sensor 	Monitors performance statistics of an Apache web server using <code>mod_status</code> over HTTP.
HTTP Apache ModStatus Totals sensor 	Monitors the activity of an Apache web server using <code>mod_status</code> over HTTP.
HTTP IoT Push Data Advanced sensor 	Displays data from messages that are received from IoT-capable devices and that are pushed via an HTTPS request to PRTG.
HTTP Push Count sensor 	Counts received messages that are pushed via an HTTP request to PRTG.
HTTP Push Data sensor 	Displays numeric values from received messages that are pushed via an HTTP request to PRTG.
HTTP Push Data Advanced sensor 	Displays data from received messages that are pushed via an HTTP request to PRTG.
Microsoft 365 Service Status sensor 	Monitors the overall status of all services of a Microsoft 365 subscription.










Sensor	Description
Microsoft 365 Service Status Advanced sensor  1537	Monitors the detailed status of all services of a Microsoft 365 subscription.
Microsoft OneDrive sensor  1595	Monitors a Microsoft personal OneDrive account using the OneDrive API and OAuth2.
MQTT Round Trip sensor  1639	Monitors the availability of an MQTT broker (server), connects to the broker as a publishing and subscribing client, and sends the data packets using a predefined topic.
OPC UA Custom sensor  1900	Monitors up to five numeric values returned by specific OPC UA node IDs.
PerfCounter Custom sensor  1986	Monitors a configured set of Windows performance counters.
PerfCounter IIS Application Pool sensor  1998	Monitors a Microsoft IIS application pool using Windows performance counters.
POP3 sensor  2030	Monitors an email server using POP3.
RDP (Remote Desktop) sensor  2141	Monitors remote desktop services (RDP, Terminal Services Client).
SIP Options Ping sensor  2251	Monitors the connectivity to a SIP server using SIP options "Ping".
SMTP sensor  2263	Monitors a mail server using SMTP and can optionally send a test email with every check.
SNMP Buffalo TS System Health sensor  2316	Monitors the system health of a Buffalo TeraStation NAS via SNMP.
SNMP Cisco ADSL sensor  2326	Monitors ADSL statistics of a Cisco router via SNMP.
SNMP Cisco ASA VPN Traffic sensor  2348	Monitors the traffic of an IPsec VPN connection on a Cisco Adaptive Security Appliance via SNMP.
SNMP Cisco ASA VPN Users sensor  2361	Monitors account connections to a VPN on a Cisco Adaptive Security Appliance via SNMP.















Sensor	Description
SNMP Cisco System Health sensor 	Monitors the system health of a Cisco device via SNMP.
SNMP CPU Load sensor 	Monitors the system load via SNMP.
SNMP Custom Advanced sensor 	Monitors numeric values returned for OIDs via SNMP.
SNMP Custom Table sensor 	Monitors entries from a table that is provided via SNMP.
SNMP Dell EqualLogic Logical Disk sensor 	Monitors a volume of a Dell EqualLogic storage system via SNMP.
SNMP Dell EqualLogic Member Health sensor 	Monitors the health of an array member of an EqualLogic storage system via SNMP.
SNMP Dell EqualLogic Physical Disk sensor 	Monitors a disk in a Dell EqualLogic storage system via SNMP.
SNMP Dell PowerEdge Physical Disk sensor 	Monitors a physical disk in a Dell PowerEdge server via via SNMP.
SNMP Disk Free sensor 	Monitors the free disk space on a logical disk via SNMP.
SNMP Fujitsu System Health v2 sensor 	Monitors the status of a Fujitsu PRIMERGY server via the iRMS and SNMP.
SNMP HPE BladeSystem Blade sensor 	Monitors the status of an HPE BladeSystem via SNMP.
SNMP HPE BladeSystem Enclosure System Health sensor 	Monitors the system health of an HPE BladeSystem device via SNMP.
SNMP HPE ProLiant Network Interface sensor 	Monitors a network interface in an HPE server via SNMP.
SNMP HPE ProLiant Physical Disk sensor 	Monitors a physical disk in an HPE server via SNMP.











Sensor	Description
SNMP HPE ProLiant System Health sensor 	Monitors the system health of an HPE ProLiant server via SNMP.
SNMP IBM System X System Health sensor 	Monitors the system health of an IBM device via SNMP.
SNMP Juniper NS System Health sensor 	Monitors the system health of a Juniper NetScreen device via SNMP.
SNMP Linux Disk Free sensor 	Monitors free space on disks of a Linux/Unix system via SNMP.
SNMP Linux Physical Disk sensor 	Monitors the I/O on disks of a Linux/Unix system via SNMP.
SNMP Memory sensor 	Monitors the memory usage of a system via SNMP.
SNMP NetApp Disk Free sensor 	Monitors free space on disks of a NetApp storage system via SNMP.
SNMP NetApp Enclosure sensor 	Monitors the power supply and cooling of an enclosure that is part of a NetApp storage system via SNMP.
SNMP NetApp License sensor 	Monitors the licenses for the services of a NetApp storage system via SNMP.
SNMP NetApp Logical Unit sensor 	Monitors the IOPS on a logical unit of a NetApp storage system via SNMP.
SNMP NetApp Network Interface sensor 	Monitors a network card of a NetApp storage system via SNMP.
SNMP Nutanix Cluster Health sensor 	Monitors the status and the performance of a Nutanix cluster via SNMP.
SNMP Nutanix Hypervisor sensor 	Monitors a Nutanix hypervisor via SNMP.
SNMP QNAP System Health sensor 	Monitors the system health of a QNAP NAS via SNMP.

Sensor	Description
SNTP sensor 	Monitors an SNTP server.
WMI UTC Time sensor 	Monitors the UTC time of a target device via WMI.

Medium Performance Impact

Sensor	Description
Amazon CloudWatch Alarm sensor 	Monitors the status of an Amazon CloudWatch alarm.
Amazon CloudWatch EBS sensor 	Monitors the performance of the Amazon Cloud service EBS.
Amazon CloudWatch EC2 sensor 	Monitors the performance of the Amazon Cloud service EC2.
Amazon CloudWatch ElastiCache sensor 	Monitors the performance of the Amazon Cloud service ElastiCache.
Amazon CloudWatch ELB sensor 	Monitors the performance of the Amazon Cloud service ELB.
Amazon CloudWatch RDS sensor 	Monitors the performance of the Amazon Cloud service RDS.
Amazon CloudWatch SNS sensor 	Monitors the performance of the Amazon Cloud service SNS.
Amazon CloudWatch SQS sensor 	Monitors the performance of the Amazon Cloud service SQS.
Business Process sensor 	Gives you a summarized status of entire business processes while monitoring several process components.
DNS v2 sensor 	Monitors a DNS server, resolves domain name records, and compares them to a filter.
EXE/Script Advanced sensor 	Runs an executable file (.exe, .dll) or a script (batch file, VBScript, PowerShell) on the probe system.
FTP sensor 	Monitors file servers using FTP and FTPS.

Sensor	Description
HL7 sensor 	Monitors the availability of HL7 interfaces.
HTTP Advanced sensor 	Monitors the source code of a web page using HTTP. It supports authentication, content checks, and other advanced parameters.
HTTP Content sensor 	Monitors a numeric value returned by an HTTP request.
HTTP Data Advanced sensor 	Accesses a web server and retrieves XML-encoded or JSON-encoded data.
Hyper-V Cluster Shared Volume Disk Free sensor 	Monitors a Microsoft Hyper-V cluster shared volume via PowerShell.
IMAP sensor 	Monitors an email server using IMAP.
IPMI System Health sensor 	Monitors the status of a system via the IPMI.
LDAP sensor 	Monitors directory services using the LDAP.
MQTT Statistics sensor 	Monitors an MQTT topic.
MQTT Subscribe Custom sensor 	Subscribes to an MQTT topic and monitors up to five numeric values from the received JSON data.
Ping Jitter sensor 	Sends a series of ICMP echo requests ("Pings") to the specified URI to determine the statistical jitter.
Python Script Advanced sensor 	Executes a Python script on the probe system.
REST Custom sensor 	Queries a REST API endpoint and maps the JSON or XML result to sensor values.
SFTP Secure File Transfer Protocol sensor 	Monitors FTP servers of a Linux/Unix system using the SSH File Transfer Protocol (FTP over SSH).
Share Disk Free sensor 	Monitors free disk space of a share (Windows/Samba) using SMB.



Sensor	Description
SNMP Cisco UCS Physical Disk sensor  2419	Monitors a physical disk of a Cisco UCS device via SNMP.
SNMP Cisco UCS System Health sensor  2430	Monitors the system health of a Cisco UCS device via SNMP.
Soffico Orchestra Channel Health sensor  3142	Monitors the state and the overall number of successful or failed channel calls.
SSH Disk Free sensor  3154	Monitors free space on disks of a Linux/Unix system via SSH.
SSH INodes Free sensor  3170	Monitors the free index nodes on disks of Linux/Unix and macOS systems via SSH.
SSH Load Average sensor  3182	Monitors the load average of a Linux/Unix system via SSH.
SSH Meminfo sensor  3194	Monitors the memory usage of a Linux/Unix system via SSH.
SSH SAN Logical Disk sensor  3231	Monitors a logical disk on a SAN via SSH.
SSH SAN Physical Disk sensor  3244	Monitors a physical disk on a SAN via SSH.
SSH SAN System Health sensor  3258	Monitors the system health of a SAN via SSH.
TFTP sensor  3349	Monitors a TFTP server and checks if a certain file is available for download.
VMware Host Hardware Status (SOAP) sensor  3404	Monitors the hardware status of a VMware host server via SOAP.
Windows IIS Application sensor  3475	Monitors a Microsoft IIS server via WMI. It can also monitor applications that use IIS, such as Microsoft SharePoint or Microsoft Reporting Services (SSRS).
WMI HDD Health sensor  3700	Connects to the parent device via WMI and monitors the health of IDE disk drives on the target system using S.M.A.R.T.

High Performance Impact









Sensor	Description
Active Directory Replication Errors sensor <small>477</small>	Checks a Windows DC for replication errors.
ADO SQL v2 sensor <small>490</small>	Monitors a database using an ADO connection and executes an SQL query.
Citrix XenServer Host sensor <small>670</small>	Monitors a Xen host server via HTTP.
Citrix XenServer Virtual Machine sensor <small>681</small>	Monitors a VM on a Citrix XenServer via HTTP.
Dell PowerVault MDi Logical Disk sensor <small>850</small>	Monitors a virtual disk on a Dell PowerVault MD3000i, MD3420, MD3620i, MD3000f, MD3620f, or MD3820i.
Dell PowerVault MDi Physical Disk sensor <small>861</small>	Monitors a physical disk on a Dell PowerVault MD3000i, MD3420, MD3620i, MD3000f, or MD3620f.
DICOM Bandwidth sensor <small>885</small>	Monitors the bandwidth usage of a C-STORE request to a DICOM-capable device.
DICOM C-ECHO sensor <small>896</small>	Monitors the availability of DICOM-capable systems and devices by sending C-ECHO requests to the target system.
DICOM Query/Retrieve sensor <small>907</small>	Monitors the C-FIND capability of DICOM-capable systems and devices. It sends a C-FIND request or MWL query to the target device and counts all found items.
Enterprise Virtual Array sensor <small>968</small>	Monitors an HPE Storage EVA using the sssu.exe from HPE P6000 Command View Software.
Exchange Backup (PowerShell) sensor <small>993</small>	Monitors backups of an Exchange server using Remote PowerShell.
Exchange Database (PowerShell) sensor <small>1004</small>	Monitors database information of an Exchange server using Remote PowerShell.
Exchange Database DAG (PowerShell) sensor <small>1017</small>	Monitors the DAG status of a database on an Exchange server using Remote PowerShell.

Sensor	Description
Exchange Mail Queue (PowerShell) sensor  1030	Monitors the number of items in the outgoing mail queue of an Exchange server using Remote PowerShell.
Exchange Mailbox (PowerShell) sensor  1041	Monitors mailboxes of an Exchange server using Remote PowerShell.
Exchange Public Folder (PowerShell) sensor  1052	Monitors the public folders and subfolders of an Exchange server using Remote PowerShell.
File sensor  1082	Monitors a file located on the local disk on the probe system, parent device, or a file that is accessible via SMB.
File Content sensor  1104	Checks a text file (for example, logfiles) for certain strings.
Folder sensor  1116	Monitors a folder using SMB. You can monitor file changes and file ages.
FTP Server File Count sensor  1140	Logs in to an FTP server and can monitor changes to files.
HTTP Transaction sensor  1339	Monitors an interactive website, such as a web shop, by performing a transaction using a set of HTTP URLs. The sensor monitors whether logins or shopping carts work properly.
HTTP XML/REST Value sensor  1355	Retrieves an .xml file from a URL and parses it.
Hyper-V Host Server sensor  1384	Monitors a Microsoft Hyper-V host server via WMI.
Hyper-V Virtual Machine sensor  1395	Monitors a VM running on a Microsoft Hyper-V host server via WMI.
Hyper-V Virtual Network Adapter sensor  1407	Monitors virtual network adapters running on a Microsoft Hyper-V host server via WMI.
Hyper-V Virtual Storage Device sensor  1419	Monitors a virtual storage device running on a Microsoft Hyper-V host server via WMI.
IP on DNS Blacklist sensor  1448	Checks if the IP address of the sensor's parent device is listed on specific blacklist servers.






Sensor	Description
Microsoft SQL v2 sensor 	Monitors a database on a Microsoft SQL server and executes a defined query.
MySQL v2 sensor 	Monitors a database on a MySQL server and executes a defined query.
Oracle SQL v2 sensor 	Monitors a database on an Oracle server and executes a defined query.
Oracle Tablespace sensor 	Monitors a tablespace on an Oracle server.
PostgreSQL sensor 	Monitors a database on a PostgreSQL server and executes a defined query.
QoS (Quality of Service) One Way sensor 	Monitors parameters regarding the quality of a network connection between two probes.
QoS (Quality of Service) Round Trip sensor 	Monitors parameters regarding the quality of a network connection between two probes.
RADIUS v2 sensor 	Monitors a RADIUS server according to RFC 2865. The sensor tries to authenticate itself against the server.
SMTP&IMAP Round Trip sensor 	Monitors the time it takes for an email to reach an IMAP mailbox after being sent using SMTP.
SMTP&POP3 Round Trip sensor 	Monitors the time it takes for an email to reach a POP3 mailbox after being sent using SMTP.
SSH Remote Ping sensor 	Remotely monitors the connectivity between a system running Linux/macOS X and another device, using ICMP echo requests (Ping) and SSH.
SSH SAN Enclosure sensor 	Monitors a SAN enclosure via SSH.
Traceroute Hop Count sensor 	Traces the number of hops that are needed from the probe system to the IP address or DNS name defined in the sensor's parent device.
VMware Host Hardware (WBEM) sensor 	Monitors hardware information of an ESXi server using WBEM.

Sensor	Description
Windows CPU Load sensor 	Monitors the CPU load on a computer via WMI.
Windows IIS 6.0 SMTP Received sensor 	Monitors the number of received emails for a Microsoft IIS 6.0 SMTP service (Exchange 2003) via WMI.
Windows IIS 6.0 SMTP Sent sensor 	monitors the number of sent emails for an IIS 6.0 SMTP service (Exchange 2003) via WMI.
Windows MSMQ Queue Length sensor 	Reads the number of messages in a Microsoft message queue of the parent device.
Windows Network Card sensor 	Monitors bandwidth usage and traffic of a network interface via WMI.
Windows Pagefile sensor 	Monitors the Windows pagefile usage via WMI.
Windows Physical Disk I/O sensor 	Monitors the I/O parameters of a hard disk on a Windows system via WMI.
Windows Print Queue sensor 	Reads the print queue on the sensor's parent device and returns the number of jobs in the print queue.
Windows Process sensor 	Monitors a Windows process via WMI.
Windows System Uptime sensor 	Monitors the uptime of a Windows system via WMI.
WMI Battery sensor 	Monitors the available capacity and the state of connected batteries of a Windows-based device via WMI.
WMI Custom sensor 	Performs a custom query via WMI and monitors numeric values (integers and floats).
WMI Custom String sensor 	Performs a custom string query via WMI.
WMI Disk Health sensor 	Monitors the health of a physical disk on a Windows system via WMI.
WMI Exchange Server sensor 	Monitors a Microsoft Exchange Server 2003 or later via WMI.

Sensor	Description
WMI Exchange Transport Queue sensor 	Monitors the length of transport queues of a Microsoft Exchange Server 2003 or later via WMI.
WMI File sensor 	Monitors a file via WMI.
WMI Free Disk Space (Multi Disk) sensor 	Monitors the free disk space of one or more drives via WMI.
WMI Logical Disk I/O sensor 	Monitors the disk usage of a logical disk or mount point on a Windows system via WMI.
WMI Memory sensor 	Monitors available (free) system memory on Windows systems via WMI.
WMI Microsoft SQL Server 2008 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2012 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2014 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2016 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2017 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2019 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Remote Ping sensor 	Remotely connects to a Windows system via WMI and performs an ICMP echo request (Ping) from this device to a specified target.
WMI Security Center sensor 	Monitors the security status of a Windows client computer via WMI.
WMI Service sensor 	Monitors a Windows service via WMI.

Sensor	Description
WMI Share sensor 	Monitors a shared resource on a Windows system via WMI.
WMI SharePoint Process sensor 	Monitors a Microsoft SharePoint server via WMI.
WMI Storage Pool sensor 	Monitors a storage pool via WMI.
WMI Terminal Services (Windows 2008+) sensor 	Monitors the number of sessions on a Windows Terminal Services (Remote Desktop Services) server via WMI.
WMI Terminal Services (Windows XP/Vista/2003) sensor 	Monitors the number of sessions on a Windows Terminal Services (Remote Desktop Services) server via WMI.
WMI Vital System Data v2 sensor 	Monitors vital system parameters (CPU, thread, memory, network, pagefile) via WMI.
WMI Volume sensor 	Monitors the free disk space on a drive, logical volume, or mount point via WMI.
WSUS Statistics sensor 	Monitors various statistics on a WSUS server via WMI.















Very High Performance Impact

Sensor	Description
Event Log (Windows API) sensor 	Monitors Event Log entries using the Windows API.
HTTP Full Web Page sensor 	Monitors the full download time of a web page including assets such as images.
IPFIX sensor 	Receives traffic data from an IPFIX-compatible device and shows traffic by type.
IPFIX (Custom) sensor 	Receives traffic data from an IPFIX-compatible device and shows traffic by type.
jFlow v5 sensor 	Receives traffic data from a jFlow v5 compatible device and shows the traffic by type.

Sensor	Description
jFlow v5 (Custom) sensor  1521	Receives traffic data from a jFlow v5-compatible device and shows the traffic by type.
NetFlow v5 sensor  1824	Receives traffic data from a NetFlow v5 compatible device and shows the traffic by type.
NetFlow v5 (Custom) sensor  1841	Receives traffic data from a NetFlow v5 compatible device and shows the traffic by type.
NetFlow v9 sensor  1856	Receives traffic data from a NetFlow v9 compatible device and shows the traffic by type.
NetFlow v9 (Custom) sensor  1873	Receives traffic data from a NetFlow v9 compatible device and shows the traffic by type.
Packet Sniffer sensor  1956	Monitors headers of data packets that pass a local network card.
Packet Sniffer (Custom) sensor  1972	Monitors headers of data packets that pass a local network card.
Sensor Factory sensor  2178	Monitors entire business processes that involve several components.
sFlow sensor  2196	Receives traffic data from an sFlow v5-compatible device and shows the traffic by type.
sFlow (Custom) sensor  2213	Receives traffic data from an sFlow v5-compatible device and shows the traffic by type.
SNMP Trap Receiver sensor  3107	Receives and analyzes SNMP traps.
SSH Script sensor  3273	Connects to a Linux/Unix system via SSH and executes a script file located on the target system.
SSH Script Advanced sensor  3288	Connects to a Linux/Unix system via SSH and executes a script file located on the target system.
Syslog Receiver sensor  3338	Receives and analyzes Syslog messages.
VMware Host Performance (SOAP) sensor  3418	Monitors a VMware host server via SOAP.

Sensor	Description
VMware Virtual Machine (SOAP) sensor  3428	Monitors a VM on a VMware host server via SOAP.
Windows Updates Status (PowerShell) sensor  3372	Monitors the status of Windows updates on a computer and counts the available and installed Windows updates that are either from Microsoft or from the local WSUS server.
WMI Event Log sensor  3634	Monitors a specific Windows logfile via WMI.

Appendix

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






15.12 List of Sensors with IPv6 Support















Here you can find a list of sensors that you can use to query devices via the IPv6 protocol.
















i You can also see which sensors support the IPv6 protocol in the Add Sensor dialog.




Sensor	Description
Active Directory Replication Errors sensor ⁴⁷⁷	Checks a Windows DC for replication errors.
ADO SQL v2 sensor ⁴⁹⁰	Monitors a database using an ADO connection and executes an SQL query.
Amazon CloudWatch Alarm sensor ⁵⁰⁹	Monitors the status of an Amazon CloudWatch alarm.
Amazon CloudWatch EBS sensor ⁵²³	Monitors the performance of the Amazon Cloud service EBS.
Amazon CloudWatch EC2 sensor ⁵³⁸	Monitors the performance of the Amazon Cloud service EC2.
Amazon CloudWatch ElastiCache sensor ⁵⁵⁴	Monitors the performance of the Amazon Cloud service ElastiCache.
Amazon CloudWatch ELB sensor ⁵⁷⁰	Monitors the performance of the Amazon Cloud service ELB.
Amazon CloudWatch RDS sensor ⁵⁸⁵	Monitors the performance of the Amazon Cloud service RDS.
Amazon CloudWatch SNS sensor ⁶⁰¹	Monitors the performance of the Amazon Cloud service SNS.
Amazon CloudWatch SQS sensor ⁶¹⁵	Monitors the performance of the Amazon Cloud service SQS.
AWS Cost sensor ⁶³⁰	Monitors the cost of an AWS account.
Business Process sensor ⁶⁴⁴	Gives you a summarized status of entire business processes while monitoring several process components.
Common SaaS sensor ⁷⁵¹	Monitors the availability of several SaaS providers.

Sensor	Description
Dell EMC Unity Enclosure Health v2 sensor ^[778]	Monitors the health of an enclosure on a Dell EMC storage system via the REST API.
Dell EMC Unity File System v2 sensor ^[790]	Monitors a file system on a Dell EMC storage system via the REST API.
Dell EMC Unity Storage Capacity v2 sensor ^[802]	Monitors a Dell EMC storage system via the REST API.
Dell EMC Unity Storage LUN v2 sensor ^[813]	Monitors a LUN on a Dell EMC storage system via the REST API.
Dell EMC Unity Storage Pool v2 sensor ^[825]	Monitors a storage pool on a Dell EMC storage system via the REST API.
Dell EMC Unity VMware Datastore v2 sensor ^[838]	Monitors a VMware datastore on a Dell EMC storage system via the REST API.
Dell PowerVault MDi Physical Disk sensor ^[861]	Monitors a physical disk on a Dell PowerVault MD3000i, MD3420, MD3620i, MD3000f, or MD3620f.
DICOM Bandwidth sensor ^[885]	Monitors the bandwidth usage of a C-STORE request to a DICOM-capable device.
DICOM C-ECHO sensor ^[896]	Monitors the availability of DICOM-capable systems and devices by sending C-ECHO requests to the target system.
DICOM Query/Retrieve sensor ^[907]	Monitors the C-FIND capability of DICOM-capable systems and devices.
DNS sensor ^[919]	Monitors a DNS server. It resolves a domain name and compares it to a specific IP address.
DNS v2 sensor ^[930]	Monitors a DNS server, resolves domain name records, and compares them to a filter.
Enterprise Virtual Array sensor ^[968]	Monitors an HPE Storage EVA using the sssu.exe from HPE P6000 Command View Software.
Event Log (Windows API) sensor ^[980]	Monitors Event Log entries using the Windows API.

Sensor	Description
File sensor 	Monitors a file located on the local disk on the probe system, parent device, or a file that is accessible via SMB.
File Content sensor 	Checks a text file (for example, logfiles) for certain strings.
Folder sensor 	Monitors a folder using SMB. You can monitor file changes and file ages.
FTP Server File Count sensor 	Logs in to an FTP server and can monitor changes to files.
HL7 sensor 	Monitors the availability of HL7 interfaces.
HTTP sensor 	Monitors a web server using HTTP.
HTTP Advanced sensor 	Monitors the source code of a web page using HTTP.
HTTP Apache ModStatus PerfStats sensor 	Monitors the performance statistics of an Apache web server using mod_status over HTTP.
HTTP Apache ModStatus Totals sensor 	Monitors the activity of an Apache web server using mod_status over HTTP.
HTTP Content sensor 	Monitors a numeric value returned by an HTTP request.
HTTP Data Advanced sensor 	Monitors the values returned by the web server in multiple channels.
HTTP Full Web Page sensor 	Monitors the full download time of a web page including assets such as images.
HTTP IoT Push Data Advanced sensor 	Monitors the received values and a message encoded in valid XML or JSON in multiple channels.
HTTP Push Count sensor 	Monitors the received messages that are pushed via an HTTP request to PRTG.
HTTP Push Data sensor 	Monitors numeric values from received messages that are pushed via an HTTP request to PRTG.

Sensor	Description
HTTP Push Data Advanced sensor 	Monitors data from received messages that are pushed via an HTTP request to PRTG.
HTTP Transaction sensor 	Monitors an interactive website by performing a transaction using a set of HTTP URLs.
HTTP XML/REST Value sensor 	Monitors an .xml file from a specified URL.
Hyper-V Cluster Shared Volume Disk Free sensor 	Monitors a Microsoft Hyper-V cluster shared volume via PowerShell.
Hyper-V Host Server sensor 	Monitors a Microsoft Hyper-V host server via WMI or Windows performance counters.
Hyper-V Virtual Machine sensor 	Monitors a VM running on a Microsoft Hyper-V host server via WMI or Windows performance counters.
Hyper-V Virtual Network Adapter sensor 	Monitors virtual network adapters running on a Microsoft Hyper-V host server via WMI or Windows performance counters.
Hyper-V Virtual Storage Device sensor 	Monitors a virtual storage device running on a Microsoft Hyper-V host server via WMI or Windows performance counters.
IP on DNS Blacklist sensor 	Checks if the IP address of the parent device is listed on specific blacklist servers.
IPMI System Health sensor 	Monitors the status of a system via the IPMI.
Microsoft 365 Service Status sensor 	Monitors the overall status of all services of a Microsoft 365 subscription.
Microsoft 365 Service Status Advanced sensor 	Monitors the detailed status of all services of a Microsoft 365 subscription.
Microsoft Azure Subscription Cost sensor 	Monitors the cost in a Microsoft Azure subscription.
Microsoft Azure Virtual Machine sensor 	Monitors the status of a virtual machine in a Microsoft Azure subscription.




Sensor	Description
Microsoft SQL v2 sensor 	Monitors a database on a Microsoft SQL server and executes a defined query.
Modbus TCP Custom sensor 	Monitors up to five values returned by a Modbus TCP server.
MQTT Round Trip sensor 	Monitors the availability of an MQTT broker (server), connects to the broker as a publishing and subscribing client, and sends the data packets using a predefined topic.
MQTT Statistics sensor 	Monitors an MQTT topic.
MQTT Subscribe Custom sensor 	Subscribes to an MQTT topic and monitors up to five numeric values from the received JSON data.
MySQL v2 sensor 	Monitors a database on a MySQL server and executes a defined query.
NetApp Aggregate sensor 	Monitors the status of a NetApp cDOT or ONTAP storage aggregate accessing the API via SOAP.
NetApp I/O sensor 	Monitors the input and output operations of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp LIF sensor 	Monitors the logical interfaces of a NetApp cDOT or ONTAP cluster accessing the API via SOAP.
NetApp LUN sensor 	Monitors the LUN of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp NIC sensor 	Monitors the NIC of a NetApp cDOT or ONTAP cluster accessing the API via SOAP.
NetApp Physical Disk sensor 	Monitors the disks of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp SnapMirror sensor 	Monitors the SnapMirror relationships of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp System Health sensor 	Monitors the health of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp Volume sensor 	Monitors the volumes on a NetApp cDOT or ONTAP storage system accessing the API via SOAP.



Sensor	Description
OPC UA Certificate sensor 	Monitors the certificate of an OPC UA server.
OPC UA Custom sensor 	Monitors up to five numeric values returned by specific OPC UA node IDs.
OPC UA Server Status sensor 	Monitors the server status, uptime, and diagnostic information of an OPC UA server.
Oracle SQL v2 sensor 	Monitors a database on an Oracle server and executes a defined query.
Oracle Tablespace sensor 	Monitors a tablespace on an Oracle server.
Packet Sniffer sensor 	Monitors the headers of data packets that pass a local network card using a built-in packet sniffer.
Packet Sniffer (Custom) sensor 	Monitors the headers of data packets that pass a local network card using a built-in packet sniffer.
PerfCounter Custom sensor 	Monitors a configured set of Windows performance counters.
PerfCounter IIS Application Pool sensor 	Monitors a Microsoft IIS application pool using Windows performance counters.
Ping sensor 	Sends an ICMP echo request ("Ping") from the probe system to the device it is created on to monitor the availability of a device.
Ping Jitter sensor 	Sends a series of ICMP echo requests ("Pings") to the specified URI to determine the statistical jitter.
Port sensor 	Monitors a network service by connecting to its port.
Port Range sensor 	Monitors a network service by connecting to various TCP/IP ports.
PostgreSQL sensor 	Monitors a database on a PostgreSQL server and executes a defined query.
RDP (Remote Desktop) sensor 	Monitors remote desktop services (RDP, Terminal Services Client).









Sensor	Description
REST Custom sensor 	Queries a REST API endpoint and maps the JSON or XML result to sensor values.
Share Disk Free sensor 	Monitors free disk space of a share (Windows/Samba) using SMB.
SIP Options Ping sensor 	Monitors the connectivity to a SIP server using SIP options "Ping".
SNMP APC Hardware sensor 	Monitors the performance counters on an APC UPS device via SNMP.
SNMP Buffalo TS System Health sensor 	Monitors the system health of a Buffalo TeraStation NAS via SNMP.
SNMP Cisco ADSL sensor 	Monitors the ADSL statistics of a Cisco router via SNMP.
SNMP Cisco ASA VPN Connections sensor 	Monitors the VPN connections on a Cisco Adaptive Security Appliance via SNMP.
SNMP Cisco ASA VPN Traffic sensor 	Monitors the traffic of an IPsec VPN connection on a Cisco Adaptive Security Appliance via SNMP.
SNMP Cisco ASA VPN Users sensor 	Monitors the account connections to a VPN on a Cisco Adaptive Security Appliance via SNMP.
SNMP Cisco System Health sensor 	Monitors the system health of a Cisco device via SNMP.
SNMP Cisco UCS Blade sensor 	Monitors the health status of a Cisco UCS blade server via SNMP.
SNMP Cisco UCS Chassis sensor 	Monitors the health status of the chassis of a Cisco UCS device via SNMP.
SNMP Cisco UCS Physical Disk sensor 	Monitors a physical disk of a Cisco UCS device via SNMP.
SNMP Cisco UCS System Health sensor 	Monitors the system health of a Cisco UCS device via SNMP.

Sensor	Description
SNMP CPU Load sensor 	Monitors the system load via SNMP.
SNMP Custom sensor 	Monitors a single parameter returned by a specific OID via SNMP.
SNMP Custom Advanced sensor 	Monitors numeric values returned for OIDs via SNMP.
SNMP Custom String sensor 	Monitors a string returned by a specific OID via SNMP.
SNMP Custom String Lookup sensor 	Monitors a string returned by a specific OID via SNMP directly mapped to a sensor status.
SNMP Custom Table sensor 	Monitors entries from a table that is provided via SNMP.
SNMP Dell EqualLogic Logical Disk sensor 	Monitors a volume of a Dell EqualLogic storage system via SNMP.
SNMP Dell EqualLogic Member Health sensor 	Monitors the health of an array member of a Dell EqualLogic storage system via SNMP.
SNMP Dell EqualLogic Physical Disk sensor 	Monitors a disk in a Dell EqualLogic storage system via SNMP.
SNMP Dell Hardware sensor 	Monitors the performance counters on a Dell hardware device via SNMP.
SNMP Dell PowerEdge Physical Disk sensor 	Monitors a physical disk in a Dell PowerEdge server via SNMP.
SNMP Dell PowerEdge System Health sensor 	Monitors the system health of a Dell PowerEdge server via SNMP.
SNMP Disk Free sensor 	Monitors the free disk space on a logical disk via SNMP.
SNMP Fujitsu System Health v2 sensor 	Monitors the status of a Fujitsu PRIMERGY server via the iRMC and SNMP.

Sensor	Description
SNMP Hardware Status sensor ^[2609]	Monitors the status of a hardware component of a server via SNMP.
SNMP HP LaserJet Hardware sensor ^[2619]	Monitors the performance counters on an HP LaserJet hardware device via SNMP.
SNMP HPE BladeSystem Blade sensor ^[2629]	Monitors the status of an HPE BladeSystem via SNMP.
SNMP HPE BladeSystem Enclosure System Health sensor ^[2640]	Monitors the system health of an HPE BladeSystem device via SNMP.
SNMP HPE ProLiant Logical Disk sensor ^[2650]	Monitors a logical disk in an HPE server via SNMP.
SNMP HPE ProLiant Memory Controller sensor ^[2661]	Monitors a memory controller in an HPE server via SNMP.
SNMP HPE ProLiant Network Interface sensor ^[2673]	Monitors a network interface in an HPE server via SNMP.
SNMP HPE ProLiant Physical Disk sensor ^[2685]	Monitors a physical disk in an HPE server via SNMP.
SNMP HPE ProLiant System Health sensor ^[2698]	Monitors the system health of an HPE ProLiant server via SNMP.
SNMP IBM System X Logical Disk sensor ^[2711]	Monitors a logical disk in an IBM server via SNMP.
SNMP IBM System X Physical Disk sensor ^[2722]	Monitors a physical disk in an IBM server via SNMP.
SNMP IBM System X Physical Memory sensor ^[2733]	Monitors the memory modules in an IBM server via SNMP.
SNMP IBM System X System Health sensor ^[2745]	Monitors the system health of an IBM device via SNMP.

Sensor	Description
SNMP interSector Pro Environment sensor  2757	Monitors the data from a Jakarta interSector Pro environmental monitoring system via SNMP.
SNMP Juniper NS System Health sensor  2768	Monitors the system health of a Juniper NetScreen device via SNMP.
SNMP LenovoEMC Physical Disk sensor  2778	Monitors a physical disk in a LenovoEMC NAS via SNMP.
SNMP LenovoEMC System Health sensor  2788	Monitors the system health of a LenovoEMC NAS via SNMP.
SNMP Library sensor  2797	Uses a compiled MIB file to create sensors that monitor a device via SNMP.
SNMP Linux Disk Free sensor  2811	Monitors the free space on disks of a Linux/Unix system via SNMP.
SNMP Linux Load Average sensor  2825	Monitors the system load average of a Linux/Unix system via SNMP.
SNMP Linux Meminfo sensor  2834	Monitors the memory usage of a Linux/Unix system via SNMP.
SNMP Linux Physical Disk sensor  2844	Monitors the I/O on disks of a Linux/Unix system via SNMP.
SNMP Memory sensor  2855	Monitors the memory usage of a system via SNMP.
SNMP NetApp Disk Free sensor  2866	Monitors the free space on disks of a NetApp storage system via SNMP.
SNMP NetApp Enclosure sensor  2878	Monitors the power supply and cooling of an enclosure that is part of a NetApp storage system via SNMP.
SNMP NetApp I/O sensor  2890	Monitors the IOPS on a NetApp storage system via SNMP.
SNMP NetApp License sensor  2901	Monitors the licenses for the services of a NetApp storage system via SNMP.

Sensor	Description
SNMP NetApp Logical Unit sensor  2912	Monitors IOPS on a logical unit of a NetApp storage system via SNMP.
SNMP NetApp Network Interface sensor  2924	Monitors a network card of a NetApp storage system via SNMP.
SNMP NetApp System Health sensor  2935	Monitors the status of a NetApp storage system via SNMP.
SNMP Nutanix Cluster Health sensor  2946	Monitors the status and performance of a Nutanix cluster via SNMP.
SNMP Nutanix Hypervisor sensor  2959	Monitors a Nutanix hypervisor via SNMP.
SNMP Poseidon Environment sensor  2970	Monitors the performance counters for environmental measurements on Poseidon hardware via SNMP.
SNMP Printer sensor  2980	Monitors various types of printers via SNMP.
SNMP QNAP Logical Disk sensor  2990	Monitors a logical disk in a QNAP NAS via SNMP.
SNMP QNAP Physical Disk sensor  3000	Monitors a physical disk in a QNAP NAS via SNMP.
SNMP QNAP System Health sensor  3011	Monitors the system health of a QNAP NAS via SNMP.
SNMP RMON sensor  3021	Monitors the traffic on a device using the RMON standard via SNMP.
SNMP SonicWall System Health sensor  3033	Monitors the health values of a SonicWall NSA via SNMP.
SNMP SonicWall VPN Traffic sensor  3043	Monitors the traffic of an IPsec VPN on a SonicWall NSA via SNMP.
SNMP Synology Logical Disk sensor  3055	Monitors a logical disk in a Synology NAS via SNMP.















Sensor	Description
SNMP Synology Physical Disk sensor  3065	Monitors a logical disk in a Synology NAS via SNMP.
SNMP Synology System Health sensor  3075	Monitors the system health of a Synology NAS via SNMP.
SNMP System Uptime sensor  3085	Monitors the time a device runs via SNMP.
SNMP Traffic sensor  3094	Monitors the traffic on a device via SNMP.
SNMP Trap Receiver sensor  3107	Monitors SNMP traps.
SNMP Windows Service sensor  3125	Monitors a Windows service via SNMP.
SNTP sensor  3135	Monitors an SNTP server.
Soffico Orchestra Channel Health sensor  3142	Monitors the state and the overall number of successful or failed channel calls.
SSL Certificate sensor  3302	Monitors the certificate of an SSL/TLS connection.
SSL Security Check sensor  3315	Monitors the SSL/TLS connectivity to the port of a device.
Syslog Receiver sensor  3328	Receives and analyzes Syslog messages.
Traceroute Hop Count sensor  3359	Traces the number of hops that are needed from the probe system to the IP address or DNS name defined in the sensor's parent device.
Veeam Backup Job Status sensor  3369	Monitors the status of all backup job runs on the Veeam Backup Enterprise Manager in the last 24 hours.
VMware Datastore (SOAP) sensor  3380	Monitors the disk usage of a VMware datastore using SOAP.
VMware Host Hardware Status (SOAP) sensor  3404	Monitors the hardware status of a VMware host server using SOAP.

Sensor	Description
VMware Host Performance (SOAP) sensor  3416	Monitors a VMware host server using SOAP.
VMware Virtual Machine (SOAP) sensor  3428	Monitors a virtual machine on a VMware host server using SOAP.
Windows CPU Load sensor  3441	Monitors the CPU load on a computer using WMI or Windows performance counters.
Windows IIS 6.0 SMTP Received sensor  3453	Monitors the number of received emails for an IIS 6.0 SMTP service (Exchange 2003) using WMI or Windows performance counters.
Windows IIS 6.0 SMTP Sent sensor  3464	Monitors the number of sent emails for an IIS 6.0 SMTP service (Exchange 2003) using WMI or Windows performance counters.
Windows IIS Application sensor  3475	Monitors a Microsoft IIS application pool using Windows performance counters.
Windows MSMQ Queue Length sensor  3487	Monitors the number of messages in a message queue of the parent device.
Windows Network Card sensor  3499	Monitors the bandwidth usage and traffic of a network interface using WMI or Windows performance counters.
Windows Pagefile sensor  3512	Monitors the Windows pagefile usage via Windows WMI or Windows performance counters.
Windows Physical Disk I/O sensor  3522	Monitors the I/O parameters of a hard disk on a Windows system using WMI or Windows performance counters.
Windows Print Queue sensor  3535	Monitors the print queue on the sensor's parent device.
Windows Process sensor  3549	Monitors a Windows process using WMI or Windows performance counters.
Windows System Uptime sensor  3561	Monitors the uptime of a Windows system using WMI or Windows performance counters.
Windows Updates Status (PowerShell) sensor  3572	Monitors the status of Windows updates on a computer.

Sensor	Description
WMI Battery sensor 	Monitors the available capacity and state of connected batteries of a Windows-based device via WMI.
WMI Custom sensor 	Monitors numeric values (integers and floats).
WMI Custom String sensor 	Performs a custom string query via WMI.
WMI Disk Health sensor 	Monitors the health of a physical disk on a Windows system via WMI.
WMI Event Log sensor 	Monitors a specific Windows logfile via WMI.
WMI Exchange Server sensor 	Monitors a Microsoft Exchange Server 2003 or later via WMI.
WMI Exchange Transport Queue sensor 	Monitors the length of transport queues of a Microsoft Exchange Server 2003 or later via WMI.
WMI File sensor 	Monitors a file via WMI.
WMI Free Disk Space (Multi Disk) sensor 	Monitors the free disk space of one or more drives via WMI.
WMI Logical Disk I/O sensor 	Monitors the disk usage of a logical disk or mount point on a Windows system via WMI.
WMI Memory sensor 	Monitors the available (free) system memory on Windows systems via WMI.
WMI Microsoft SQL Server 2005 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2008 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2012 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2014 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.

Sensor	Description
WMI Microsoft SQL Server 2016 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2017 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2019 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Remote Ping sensor 	Monitors the ping time from the remote device to the target device that is being pinged.
WMI Security Center sensor 	Monitors the security status of a Windows client computer via WMI.
WMI Service sensor 	Monitors a Windows service via WMI.
WMI Share sensor 	Monitors a shared resource on a Windows system via WMI.
WMI SharePoint Process sensor 	Monitors a Microsoft SharePoint server via WMI.
WMI Storage Pool sensor 	Monitors a storage pool via WMI.
WMI Terminal Services (Windows 2008+) sensor 	Monitors the number of sessions on a Windows Terminal Services (Remote Desktop Services) server via WMI.
WMI Terminal Services (Windows XP/Vista/2003) sensor 	Monitors the number of sessions on a Windows Terminal Services (Remote Desktop Services) server via WMI.
WMI Vital System Data v2 sensor 	Monitors vital system parameters (CPU, thread, memory, network, pagefile) via WMI.
WMI Volume sensor 	Monitors the free disk space on a drive, logical volume, or mount point via WMI.
WSUS Statistics sensor 	Monitors various statistics on a WSUS server via WMI.
Zoom Service Status sensor 	Monitors the global status of all Zoom services.

Appendix

















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
15.13 List of Sensors with Meta-Scan Functionality
















Here you can find a list of sensors that perform a meta-scan before sensor creation to dynamically scan for available monitoring objects.

Sensor	Description
Active Directory Replication Errors sensor ⁴⁷⁷	Checks a Windows DC for replication errors.
ADO SQL v2 sensor ⁴⁹⁰	Monitors a database using an ADO connection and executes an SQL query.
Amazon CloudWatch Alarm sensor ⁵⁰⁹	Monitors the status of an Amazon CloudWatch alarm.
Amazon CloudWatch EBS sensor ⁵²³	Monitors the performance of the Amazon Cloud service EBS.
Amazon CloudWatch EC2 sensor ⁵³⁸	Monitors the performance of the Amazon Cloud service EC2.
Amazon CloudWatch ElastiCache sensor ⁵⁵⁴	Monitors the performance of the Amazon Cloud service ElastiCache.
Amazon CloudWatch ELB sensor ⁵⁷⁰	Monitors the performance of the Amazon Cloud service ELB.
Amazon CloudWatch RDS sensor ⁵⁸⁵	Monitors the performance of the Amazon Cloud service RDS.
Amazon CloudWatch SNS sensor ⁶⁰¹	Monitors the performance of the Amazon Cloud service SNS.
Amazon CloudWatch SQS sensor ⁶¹⁵	Monitors the performance of the Amazon Cloud service SQS.
Cisco IP SLA sensor ⁶⁵⁸	Monitors VoIP network parameters using IP SLAs from Cisco via SNMP.
Citrix XenServer Host sensor ⁶⁷⁰	Monitors a Xen host server via HTTP.
Citrix XenServer Virtual Machine sensor ⁶⁸¹	Monitors a VM on a Citrix XenServer via HTTP.
Dell EMC Unity Enclosure Health v2 sensor ⁷⁷⁸	Monitors the health of an enclosure on a Dell EMC storage system via the REST API.

Sensor	Description
Dell EMC Unity File System v2 sensor 	Monitors a file system on a Dell EMC storage system via the REST API.
Dell EMC Unity Storage LUN v2 sensor 	Monitors a LUN on a Dell EMC storage system via the REST API.
Dell EMC Unity Storage Pool v2 sensor 	Monitors a storage pool on a Dell EMC storage system via the REST API.
Dell EMC Unity VMware Datastore v2 sensor 	Monitors a VMware datastore on a Dell EMC storage system via the REST API.
Dell PowerVault MDi Logical Disk sensor 	Monitors a virtual disk on a Dell PowerVault MD3000i, MD3420, MD3620i, MD3000f, MD3620f, or MD3820i.
Dell PowerVault MDi Physical Disk sensor 	Monitors a physical disk on a Dell PowerVault MD3000i, MD3420, MD3620i, MD3000f, or MD3620f.
DHCP sensor 	Monitors a DHCP server. It sends a broadcast message to the network and waits for a DHCP server to respond.
Docker Container Status sensor 	Monitors the status of a Docker container.
Dropbox sensor 	Monitors a Dropbox account using the Dropbox API and OAuth2.
Enterprise Virtual Array sensor 	Monitors an HPE Storage EVA using the sssu.exe from HPE P6000 Command View Software.
Exchange Backup (PowerShell) sensor 	Monitors backups of an Exchange server using Remote PowerShell.
Exchange Database (PowerShell) sensor 	Monitors database information of an Exchange server using Remote PowerShell.
Exchange Database DAG (PowerShell) sensor 	Monitors the DAG status of a database on an Exchange server using Remote PowerShell.
Exchange Mail Queue (PowerShell) sensor 	Monitors the number of items in the outgoing mail queue of an Exchange server using Remote PowerShell.
Exchange Mailbox (PowerShell) sensor 	Monitors mailboxes of an Exchange server using Remote PowerShell.




Sensor	Description
Exchange Public Folder (PowerShell) sensor 	Monitors the public folders and subfolders of an Exchange server using Remote PowerShell.
EXE/Script sensor 	Runs an executable file (.exe, .dll) or a script (batch file, VBScript, PowerShell) on the probe system.
EXE/Script Advanced sensor 	Runs an executable file (.exe, .dll) or a script (batch file, VBScript, PowerShell) on the probe system.
Google Analytics sensor 	Queries and monitors several metrics from a Google Analytics account using the Google API and OAuth2.
Google Drive sensor 	Monitors a Google Drive account using the Google API and OAuth2.
HL7 sensor 	Monitors the availability of HL7 interfaces.
Hyper-V Cluster Shared Volume Disk Free sensor 	Monitors a Microsoft Hyper-V cluster shared volume via PowerShell.
Hyper-V Virtual Machine sensor 	Monitors a VM running on a Microsoft Hyper-V host server via WMI.
Hyper-V Virtual Network Adapter sensor 	Monitors virtual network adapters running on a Microsoft Hyper-V host server via WMI.
Hyper-V Virtual Storage Device sensor 	Monitors a virtual storage device running on a Microsoft Hyper-V host server via WMI.
IPMI System Health sensor 	Monitors the status of a system via the IPMI.
Microsoft 365 Service Status Advanced sensor 	Monitors the detailed status of all services of a Microsoft 365 subscription.
Microsoft Azure Virtual Machine sensor 	Monitors the status of a virtual machine in a Microsoft Azure subscription.
Microsoft OneDrive sensor 	Monitors a Microsoft personal OneDrive account using the OneDrive API and OAuth2.
Microsoft SQL v2 sensor 	Monitors a database on a Microsoft SQL server and executes a defined query.
MySQL v2 sensor 	Monitors a database on a MySQL server and executes a defined query.











Sensor	Description
NetApp Aggregate sensor 	Monitors the status of a NetApp cDOT or ONTAP storage aggregate accessing the API via SOAP.
NetApp I/O sensor 	Monitors input and output operations of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp LIF sensor 	Monitors logical interfaces of a NetApp cDOT or ONTAP cluster accessing the API via SOAP.
NetApp LUN sensor 	Monitors the LUN of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp NIC sensor 	Monitors the NIC of a NetApp cDOT or ONTAP cluster accessing the API via SOAP.
NetApp Physical Disk sensor  	Monitors disks of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp SnapMirror sensor 	Monitors SnapMirror relationships of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp System Health sensor 	Monitors the health of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp Volume sensor 	Monitors volumes on a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
Oracle SQL v2 sensor 	Monitors a database on an Oracle server and executes a defined query.
Oracle Tablespace sensor 	Monitors a tablespace on an Oracle server.
PerfCounter IIS Application Pool sensor 	Monitors a Microsoft IIS application pool using Windows performance counters.
PostgreSQL sensor 	Monitors a database on a PostgreSQL server and executes a defined query.
Python Script Advanced sensor 	Executes a Python script on the probe system.
REST Custom sensor 	Queries a REST API endpoint and maps the JSON or XML result to sensor values.
Share Disk Free sensor 	Monitors free disk space of a share (Windows/Samba) using SMB.

Sensor	Description
SIP Options Ping sensor 	Monitors the connectivity to a SIP server using SIP options "Ping".
SMTP sensor 	Monitors a mail server using SMTP and can optionally send a test email with every check.
SMTP&IMAP Round Trip sensor 	Monitors the time it takes for an email to reach an IMAP mailbox after being sent using SMTP.
SMTP&POP3 Round Trip sensor 	Monitors the time it takes for an email to reach a POP3 mailbox after being sent using SMTP.
SNMP APC Hardware sensor 	Monitors performance counters on an APC UPS device via SNMP.
SNMP Cisco ADSL sensor 	Monitors ADSL statistics of a Cisco router via SNMP.
SNMP Cisco ASA VPN Traffic sensor 	Monitors the traffic of an IPsec VPN connection on a Cisco Adaptive Security Appliance via SNMP.
SNMP Cisco CBQoS sensor 	Monitors network parameters using Cisco's CBQoS via SNMP.
SNMP Cisco System Health sensor 	Monitors the system health of a Cisco device via SNMP.
SNMP Cisco UCS Blade sensor 	Monitors the health status of a Cisco UCS blade server via SNMP.
SNMP Cisco UCS Chassis sensor 	Monitors the health status of the chassis of a Cisco UCS device via SNMP.
SNMP Cisco UCS Physical Disk sensor 	Monitors a physical disk of a Cisco UCS device via SNMP.
SNMP Custom String Lookup sensor 	Monitors a string returned by a specific OID via SNMP and can map the string directly to a sensor status.
SNMP Custom Table sensor 	Monitors entries from a table that is provided via SNMP.
SNMP Dell EqualLogic Logical Disk sensor 	Monitors a volume of a Dell EqualLogic storage system via SNMP.
SNMP Dell EqualLogic Member Health sensor 	Monitors the health of an array member of an EqualLogic storage system via SNMP.


Sensor	Description
SNMP Dell EqualLogic Physical Disk sensor 	Monitors a disk in a Dell EqualLogic storage system via SNMP.
SNMP Dell Hardware sensor 	Monitors performance counters on a Dell hardware device via SNMP.
SNMP Dell PowerEdge Physical Disk sensor 	Monitors a physical disk in a Dell PowerEdge server via via SNMP.
SNMP Dell PowerEdge System Health sensor 	Monitors the system health of a Dell PowerEdge server via SNMP.
SNMP Disk Free sensor 	Monitors the free disk space on a logical disk via SNMP.
SNMP Fujitsu System Health v2 sensor 	Monitors the status of a Fujitsu PRIMERGY server via the iRMS and SNMP.
SNMP Hardware Status sensor 	Monitors the status of a server's hardware component via SNMP.
SNMP HP LaserJet Hardware sensor 	Monitors performance counters on an HP LaserJet hardware device via SNMP.
SNMP HPE BladeSystem Blade sensor 	Monitors the status of an HPE BladeSystem via SNMP.
SNMP HPE ProLiant Logical Disk sensor 	Monitors a logical disk in an HPE server via SNMP.
SNMP HPE ProLiant Memory Controller sensor 	Monitors a memory controller in an HPE server via SNMP.
SNMP HPE ProLiant Network Interface sensor 	Monitors a network interface in an HPE server via SNMP.
SNMP HPE ProLiant Physical Disk sensor 	Monitors a physical disk in an HPE server via SNMP.
SNMP IBM System X Logical Disk sensor 	Monitors a logical disk in an IBM server via SNMP.
SNMP IBM System X Physical Disk sensor 	Monitors a physical disk in an IBM server via SNMP.

Sensor	Description
SNMP IBM System X Physical Memory sensor 	Monitors the memory modules in an IBM server via SNMP.
SNMP IBM System X System Health sensor 	Monitors the system health of an IBM device via SNMP.
SNMP interSeptor Pro Environment sensor 	Queries data from a Jakarta interSeptor Pro environmental monitoring system via SNMP.
SNMP LenovoEMC Physical Disk sensor 	Monitors a physical disk in a LenovoEMC NAS via SNMP.
SNMP Library sensor 	Uses a compiled MIB file to create sensors that monitor a device via SNMP.
SNMP Linux Physical Disk sensor 	Monitors the I/O on disks of a Linux/Unix system via SNMP.
SNMP Memory sensor 	Monitors the memory usage of a system via SNMP.
SNMP NetApp Disk Free sensor 	Monitors free space on disks of a NetApp storage system via SNMP.
SNMP NetApp Enclosure sensor 	Monitors the power supply and cooling of an enclosure that is part of a NetApp storage system via SNMP.
SNMP NetApp License sensor 	Monitors the licenses for the services of a NetApp storage system via SNMP.
SNMP NetApp Logical Unit sensor  	Monitors the IOPS on a logical unit of a NetApp storage system via SNMP.
SNMP NetApp Network Interface sensor 	Monitors a network card of a NetApp storage system via SNMP.
SNMP Nutanix Cluster Health sensor 	Monitors the status and the performance of a Nutanix cluster via SNMP.
SNMP Nutanix Hypervisor sensor 	Monitors a Nutanix hypervisor via SNMP.
SNMP Poseidon Environment sensor 	Monitors performance counters for environmental measurements on Poseidon hardware via SNMP.
SNMP QNAP Logical Disk sensor 	Monitors a logical disk in a QNAP NAS via SNMP.

Sensor	Description
SNMP QNAP Physical Disk sensor 	Monitors a physical disk in a QNAP NAS via SNMP.
SNMP QNAP System Health sensor 	Monitors the system health of a QNAP NAS via SNMP.
SNMP RMON sensor 	Monitors traffic on a device using the Remote Monitoring (RMON) standard via SNMP.
SNMP SonicWall VPN Traffic sensor 	Monitors the traffic of an IPsec VPN on a SonicWall NSA via SNMP.
SNMP Synology Logical Disk sensor 	Monitors a logical disk in a Synology NAS via SNMP.
SNMP Synology Physical Disk sensor 	Monitors a physical disk in a Synology NAS via SNMP.
SNMP Traffic sensor 	Monitors traffic on a device via SNMP.
SNMP Windows Service sensor 	Monitors a Windows service via SNMP.
Soffico Orchestra Channel Health sensor 	Monitors the state and the overall number of successful or failed channel calls.
SSH Disk Free sensor 	Monitors free space on disks of a Linux/Unix system via SSH.
SSH SAN Enclosure sensor 	Monitors a SAN enclosure via SSH.
SSH SAN Logical Disk sensor 	Monitors a logical disk on a SAN via SSH.
SSH SAN Physical Disk sensor 	Monitors a physical disk on a SAN via SSH.
SSH SAN System Health sensor 	Monitors the system health of a SAN via SSH.
SSH Script sensor 	Connects to a Linux/Unix system via SSH and executes a script file located on the target system.
SSH Script Advanced sensor 	Connects to a Linux/Unix system via SSH and executes a script file located on the target system.
VMware Datastore (SOAP) sensor 	Monitors the disk usage of a VMware datastore via SOAP.

Sensor	Description
VMware Host Hardware (WBEM) sensor 	Monitors hardware information of an ESXi server using WBEM.
VMware Host Hardware Status (SOAP) sensor 	Monitors the hardware status of a VMware host server via SOAP.
VMware Host Performance (SOAP) sensor 	Monitors a VMware host server via SOAP.
VMware Virtual Machine (SOAP) sensor 	Monitors a VM on a VMware host server via SOAP.
Windows IIS Application sensor 	Monitors a Microsoft IIS server via WMI. It can also monitor applications that use IIS, such as Microsoft SharePoint or Microsoft Reporting Services (SSRS).
Windows MSMQ Queue Length sensor 	Reads the number of messages in a Microsoft message queue of the parent device.
Windows Network Card sensor 	Monitors bandwidth usage and traffic of a network interface via WMI.
Windows Physical Disk I/O sensor 	Monitors the I/O parameters of a hard disk on a Windows system via WMI.
Windows Print Queue sensor 	Reads the print queue on the sensor's parent device and returns the number of jobs in the print queue.
Windows Updates Status (PowerShell) sensor 	Monitors the status of Windows updates on a computer and counts the available and installed Windows updates that are either from Microsoft or from the local WSUS server.
WMI Battery sensor 	Monitors the available capacity and the state of connected batteries of a Windows-based device via WMI.
WMI Custom sensor 	Performs a custom query via WMI and monitors numeric values (integers and floats).
WMI Custom String sensor 	Performs a custom string query via WMI.
WMI Disk Health sensor 	Monitors the health of a physical disk on a Windows system via WMI.
WMI Event Log sensor 	Monitors a specific Windows logfile via WMI.

Sensor	Description
WMI Exchange Server sensor 	Monitors a Microsoft Exchange Server 2003 or later via WMI.
WMI Exchange Transport Queue sensor 	Monitors the length of transport queues of a Microsoft Exchange Server 2003 or later via WMI.
WMI HDD Health sensor 	Connects to the parent device via WMI and monitors the health of IDE disk drives on the target system using S.M.A.R.T.
WMI Logical Disk I/O sensor 	Monitors the disk usage of a logical disk or mount point on a Windows system via WMI.
WMI Microsoft SQL Server 2008 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2012 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2014 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2016 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2017 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Microsoft SQL Server 2019 sensor 	Monitors the performance of a Microsoft SQL Server via WMI.
WMI Security Center sensor 	Monitors the security status of a Windows client computer via WMI.
WMI Service sensor 	Monitors a Windows service via WMI.
WMI Share sensor 	Monitors a shared resource on a Windows system via WMI.
WMI SharePoint Process sensor 	Monitors a Microsoft SharePoint server via WMI.
WMI Storage Pool sensor 	Monitors a storage pool via WMI.
WMI Vital System Data v2 sensor 	Monitors vital system parameters (CPU, thread, memory, network, pagefile) via WMI.

















Sensor	Description
WMI Volume sensor 	Monitors the free disk space on a drive, logical volume, or mount point via WMI.








15.14 List of Sensors without Device Template Capability















Here you can find a list of sensors that are **not** device template capable and that you can therefore not save to device templates.

For more information, see section [Create Device Template](#).

Sensor	Description
AWS Cost sensor	Monitors the cost of an AWS account by reading its data from the AWS Cost Explorer API.
Business Process sensor	Gives you a summarized status of entire business processes while monitoring several process components.
Cloud HTTP v2 sensor	Monitors the response time and response code of the target server.
Cloud Ping v2 sensor	Monitors the response time of the target server using TCP ping.
Cluster Health sensor	Monitors the health of a cluster and indicates the system health status of PRTG.
Core Health sensor	Monitors internal PRTG parameters and shows the status of the PRTG core server.
Core Health (Autonomous) sensor	Monitors internal PRTG parameters and shows the status of the PRTG core server.
DHCP sensor	Monitors a DHCP server. It sends a broadcast message to the network and waits for a DHCP server to respond.
DICOM Bandwidth sensor	Monitors the bandwidth usage of a C-STORE request to a DICOM-capable device.
DICOM C-ECHO sensor	Monitors the availability of DICOM-capable systems and devices by sending C-ECHO requests to the target system.
DICOM Query/Retrieve sensor	Monitors the C-FIND capability of DICOM-capable systems and devices. It sends a C-FIND request or MWL query to the target device and counts all found items.
Docker Container Status sensor	Monitors the status of a Docker container.
Dropbox sensor	Monitors a Dropbox account using the Dropbox API and OAuth2.

Sensor	Description
Enterprise Virtual Array sensor 	Monitors an HPE Storage EVA using the <code>sssu.exe</code> from HPE P6000 Command View Software.
Exchange Backup (PowerShell) sensor 	Monitors backups of an Exchange server using Remote PowerShell.
Exchange Database (PowerShell) sensor 	Monitors database information of an Exchange server using Remote PowerShell.
Exchange Database DAG (PowerShell) sensor 	Monitors the DAG status of a database on an Exchange server using Remote PowerShell.
Exchange Mail Queue (PowerShell) sensor 	Monitors the number of items in the outgoing mail queue of an Exchange server using Remote PowerShell.
Exchange Mailbox (PowerShell) sensor 	Monitors mailboxes of an Exchange server using Remote PowerShell.
Exchange Public Folder (PowerShell) sensor 	Monitors the public folders and subfolders of an Exchange server using Remote PowerShell.
Google Analytics sensor 	Queries and monitors several metrics from a Google Analytics account using the Google API and OAuth2.
Google Drive sensor 	Monitors a Google Drive account using the Google API and OAuth2.
HL7 sensor 	Monitors the availability of HL7 interfaces.
IPFIX sensor 	Receives traffic data from an IPFIX-compatible device and shows traffic by type.
IPFIX (Custom) sensor 	Receives traffic data from an IPFIX-compatible device and shows traffic by type.
IPMI System Health sensor 	Monitors the status of a system via the IPMI.
jFlow v5 sensor 	Receives traffic data from a jFlow v5 compatible device and shows the traffic by type.
jFlow v5 (Custom) sensor 	Receives traffic data from a jFlow v5-compatible device and shows the traffic by type.
Microsoft 365 Service Status sensor 	Monitors the overall status of all services of a Microsoft 365 subscription.

Sensor	Description
Microsoft 365 Service Status Advanced sensor  1557	Monitors the detailed status of all services of a Microsoft 365 subscription.
Microsoft OneDrive sensor  1595	Monitors a Microsoft personal OneDrive account using the OneDrive API and OAuth2.
NetApp Aggregate sensor  1693	Monitors the status of a NetApp cDOT or ONTAP storage aggregate accessing the API via SOAP.
NetApp I/O sensor  1707	Monitors input and output operations of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp LIF sensor  1722	Monitors logical interfaces of a NetApp cDOT or ONTAP cluster accessing the API via SOAP.
NetApp LUN sensor  1736	Monitors the LUN of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp NIC sensor  1751	Monitors the NIC of a NetApp cDOT or ONTAP cluster accessing the API via SOAP.
NetApp Physical Disk sensor  1765  1765	Monitors disks of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp SnapMirror sensor  1779	Monitors SnapMirror relationships of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp System Health sensor  1794	Monitors the health of a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetApp Volume sensor  1809	Monitors volumes on a NetApp cDOT or ONTAP storage system accessing the API via SOAP.
NetFlow v5 sensor  1824	Receives traffic data from a NetFlow v5 compatible device and shows the traffic by type.
NetFlow v5 (Custom) sensor  1841	Receives traffic data from a NetFlow v5 compatible device and shows the traffic by type.
NetFlow v9 sensor  1856	Receives traffic data from a NetFlow v9 compatible device and shows the traffic by type.
NetFlow v9 (Custom) sensor  1873	Receives traffic data from a NetFlow v9 compatible device and shows the traffic by type.

Sensor	Description
Packet Sniffer sensor 	Monitors headers of data packets that pass a local network card.
Packet Sniffer (Custom) sensor 	Monitors headers of data packets that pass a local network card.
Probe Health sensor 	Monitors internal PRTG parameters and shows the status of the probe system.
QoS (Quality of Service) One Way sensor 	Monitors parameters regarding the quality of a network connection between two probes.
QoS (Quality of Service) Round Trip sensor 	Monitors parameters regarding the quality of a network connection between two probes.
REST Custom sensor 	Queries a REST API endpoint and maps the JSON or XML result to sensor values.
Sensor Factory sensor 	Monitors entire business processes that involve several components.
sFlow sensor 	Receives traffic data from an sFlow v5-compatible device and shows the traffic by type.
sFlow (Custom) sensor 	Receives traffic data from an sFlow v5-compatible device and shows the traffic by type.
SNMP Trap Receiver sensor 	Receives and analyzes SNMP traps.
Soffico Orchestra Channel Health sensor 	Monitors the state and the overall number of successful or failed channel calls.
Syslog Receiver sensor 	Receives and analyzes Syslog messages.
System Health sensor 	Monitors internal PRTG parameters and shows the status of the probe system.
Zoom Service Status sensor 	Monitors the global status of all Zoom services.

15.15 List of Standard Lookup Files

Here you can find a list of all PRTG standard lookup files that are located in the \lookups subfolder of the [PRTG program directory](#).

i The actual number of standard lookup files in the \lookups subfolder of your PRTG installation depends on your system configuration and might differ from this list.

■ For more information, see section [Define Lookups](#).

Standard Lookup	Used by
oid.paessler.hplaserjet.jamstatus.ovl	SNMP HP LaserJet Hardware sensor
oid.paessler.hplaserjet.paperstatus.ovl	SNMP HP LaserJet Hardware sensor
oid.paessler.hplaserjet.tonerstatus.ovl	SNMP HP LaserJet Hardware sensor
prtg.standardlookups.access.status.ovl	N/A
prtg.standardlookups.activeinactive.stateactiveok.ovl	N/A
prtg.standardlookups.activeinactive.stateless.ovl	N/A
prtg.standardlookups.apc-mib.upsbattery.upsbatteryteststatus.ovl	Device template for APC UPS
prtg.standardlookups.aws.statevalue.ovl	Amazon CloudWatch Alarm sensor
prtg.standardlookups.aws.status.ovl	Amazon CloudWatch EC2 sensor
prtg.standardlookups.boolean.statefalseok.ovl	N/A
prtg.standardlookups.boolean.statetrueok.ovl	N/A
prtg.standardlookups.buffalo.ts.nasarraystatus.ovl	Device template for Buffalo TeraStation
prtg.standardlookups.buffalo.ts.nasdisksmartstatus.ovl	Device template for Buffalo TeraStation
prtg.standardlookups.buffalo.ts.nasdiskstatus.ovl	Device template for Buffalo TeraStation

Standard Lookup	Used by
prtg.standardlookups.buffalo.ts.nasfailoverstatus.ovl	SNMP Buffalo TS System Health sensor
prtg.standardlookups.buffalo.ts.nasiscsistatus.ovl	Device template for Buffalo TeraStation
prtg.standardlookups.buffalo.ts.nasisfwupdateavailable.ovl	SNMP Buffalo TS System Health sensor
prtg.standardlookups.buffalo.ts.nasrpcsustatus.ovl	SNMP Buffalo TS System Health sensor
prtg.standardlookups.businessprocess.state.ovl	Business Process sensor
prtg.standardlookups.cisco.ciscoenvmonstate.ovl	SNMP Cisco System Health sensor
prtg.standardlookups.cisco.cucs.cucsequipmentchassisconfigstate.ovl	SNMP Cisco UCS Chassis sensor
prtg.standardlookups.cisco.cucs.cucsequipmentchassispoweroperstate.ovl	SNMP Cisco UCS Chassis sensor
prtg.standardlookups.cisco.cucs.cucslicensestate.ovl	SNMP Cisco UCS Chassis sensor
prtg.standardlookups.cisco.cucs.equipmentoperability.ovl	SNMP Cisco UCS Blade sensor SNMP Cisco UCS Chassis sensor SNMP Cisco UCS Physical Disk sensor
prtg.standardlookups.cisco.cucs.equipmentpowerstate.ovl	SNMP Cisco UCS Blade sensor
prtg.standardlookups.cisco.cucs.equipmentpresence.ovl	SNMP Cisco UCS Physical Disk sensor
prtg.standardlookups.cisco.cucs.equipmentsensorthresholdstatus.ovl	SNMP Cisco UCS Chassis sensor SNMP Cisco UCS System Health sensor
prtg.standardlookups.cisco.cucs.lsoperstate.ovl	SNMP Cisco UCS Blade sensor
prtg.standardlookups.cisco.sensecode.ovl	Cisco IP SLA sensor

Standard Lookup	Used by
prtg.standardlookups.cisco.truthvalue.ovl	SNMP Cisco System Health sensor
prtg.standardlookups.commonsaas.services.ovl	N/A
prtg.standardlookups.connectionstate.bothok.ovl	SNMP Cisco ASA VPN Users sensor
prtg.standardlookups.connectionstate.stateonlineok.ovl	SNMP NetApp Logical Unit sensor
prtg.standardlookups.dell.dellstatus.ovl	SNMP Dell Hardware sensor SNMP Dell PowerEdge Physical Disk sensor SNMP Dell PowerEdge System Health sensor
prtg.standardlookups.dell.diskstate.ovl	SNMP Dell PowerEdge Physical Disk sensor
prtg.standardlookups.dell.diskstate_idrac.ovl	SNMP Dell PowerEdge Physical Disk sensor
prtg.standardlookups.dell.equallogic.availability.ovl	SNMP Dell EqualLogic Logical Disk sensor
prtg.standardlookups.dell.equallogic.diskhealth.ovl	SNMP Dell EqualLogic Physical Disk sensor
prtg.standardlookups.dell.equallogic.diskstatus.ovl	SNMP Dell EqualLogic Physical Disk sensor
prtg.standardlookups.dell.equallogic.memberhealthstatus.ovl	SNMP Dell EqualLogic Member Health sensor
prtg.standardlookups.dell.equallogic.memberstatus.ovl	SNMP Dell EqualLogic Member Health sensor
prtg.standardlookups.dell.equallogic.operstatus.ovl	SNMP Dell EqualLogic Logical Disk sensor
prtg.standardlookups.dell.equallogic.powersupplystatus.ovl	SNMP Dell EqualLogic Member Health sensor
prtg.standardlookups.dell.equallogic.raidstatus.ovl	SNMP Dell EqualLogic Member Health sensor

Standard Lookup	Used by
prtg.standardlookups.dell.phydisk.mode.ovl	Dell PowerVault MDi Physical Disk sensor
prtg.standardlookups.dell.phydisk.status.ovl	Dell PowerVault MDi Physical Disk sensor
prtg.standardlookups.disabledenabled.stateenabledok.ovl	N/A
prtg.standardlookups.disabledenabled.stateless.ovl	N/A
prtg.standardlookups.docker.containerstatus.ovl	Docker Container Status sensor
prtg.standardlookups.emc.health.ovl	REST Dell EMC File System sensor (deprecated) REST Dell EMC LUN sensor (deprecated) REST Dell EMC Pool sensor (deprecated) REST Dell EMC System Health sensor (deprecated)
prtg.standardlookups.emc.lenovo.diskstatus.ovl	SNMP LenovoEMC Physical Disk sensor
prtg.standardlookups.emc.lenovo.raidstatus.ovl	SNMP LenovoEMC System Health sensor
prtg.standardlookups.esxelementhealthsensor.healthstate.ovl	VMware Host Hardware (WBEM) sensor
prtg.standardlookups.exampledevice.ovl	N/A
prtg.standardlookups.exchangedag.activationstatus.ovl	Exchange Database DAG (PowerShell) sensor
prtg.standardlookups.exchangedag.contentindexstate.ovl	Exchange Database DAG (PowerShell) sensor
prtg.standardlookups.exchangedag.status.ovl	Exchange Database DAG (PowerShell) sensor
prtg.standardlookups.exchangedag.yesno.allstatesok.ovl	Exchange Backup (PowerShell) sensor

Standard Lookup	Used by
prtg.standardlookups.exchangedag.yesno.statenook.ovl	N/A
prtg.standardlookups.exchangedag.yesno.stateyesok.ovl	Exchange Database (PowerShell) sensor
prtg.standardlookups.exchangedag.yesno.stateyeswarning.ovl	Exchange Database DAG (PowerShell) sensor
prtg.standardlookups.fujitsu.fsc-raid-mib.svrctrl.svrctrlbbustatusex.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-raid-mib.svrctrl.svrctrlstatus.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-raid-mib.svrlogicaldrive.svrlogicaldriveinitstatus.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-raid-mib.svrlogicaldrive.svrlogicaldrivestatusex.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-raid-mib.svrphysicaldevice.svrphysicaldeviceconfigureddisk.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-raid-mib.svrphysicaldevice.svrphysicaldeviceforeignconfig.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-raid-mib.svrphysicaldevice.svrphysicaldevicepowerstatus.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-raid-mib.svrphysicaldevice.svrphysicaldevicesmartstatus.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-raid-mib.svrphysicaldevice.svrphysicaldevicestatusex.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-raid-mib.svrstatus.svrstatusoverall.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-servercontrol2-mib.sc2cpu.sc2cpustatus.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-servercontrol2-mib.sc2managementprocessor.sc2spbatterystatus.ovl	SNMP Fujitsu System Health v2 sensor

Standard Lookup	Used by
prtg.standardlookups.fujitsu.fsc-servercontrol2-mib.sc2memorymodule.sc2memmoduleapproved.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-servercontrol2-mib.sc2memorymodule.sc2memmoduleconfiguration.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-servercontrol2-mib.sc2memorymodule.sc2memmodulestatus.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-servercontrol2-mib.sc2powersupply.sc2powersupplystatus.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-servercontrol2-mib.sc2powersupplyredundancyconfiguration.sc2psredundancy modeconfig.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-servercontrol2-mib.sc2powersupplyredundancyconfiguration.sc2psredundancy status.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-servercontrol2-mib.sc2psredundancymode.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.fsc-servercontrol2-mib.sc2statuscomponent.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.fujitsu.serverview-status-mib.siestsubsystem.siestsubsystemstatusvalue.ovl	SNMP Fujitsu System Health v2 sensor
prtg.standardlookups.gitlab.buildstatus.ovl	GitLab Build Status sensor
prtg.standardlookups.Google.Gsa.Health.ovl	N/A
prtg.standardlookups.hl7.ackcode.ovl	HL7 sensor
prtg.standardlookups.hp.blade.enclosure.condition.ovl	SNMP HPE BladeSystem Enclosure System Health sensor
prtg.standardlookups.hp.blade.power.ovl	SNMP HPE BladeSystem Blade sensor
prtg.standardlookups.hp.blade.status.ovl	SNMP HPE BladeSystem Blade sensor

Standard Lookup	Used by
prtg.standardlookups.hp.condition.ovl	SNMP HPE ProLiant Memory Controller sensor
prtg.standardlookups.hp.diskstatus.ovl	SNMP HPE ProLiant Physical Disk sensor
prtg.standardlookups.hp.eva.state.ovl	Enterprise Virtual Array sensor
prtg.standardlookups.hp.logicaldiskstatus.ovl	SNMP HPE ProLiant Logical Disk sensor
prtg.standardlookups.hp.memorycontrollererrorstatus.ovl	SNMP HPE ProLiant Memory Controller sensor
prtg.standardlookups.hp.memorymodulestatus.ovl	SNMP HPE ProLiant Memory Controller sensor
prtg.standardlookups.hp.powersupplystatus.ovl	SNMP HPE ProLiant System Health sensor
prtg.standardlookups.hp.smartstatus.ovl	SNMP HPE ProLiant Physical Disk sensor
prtg.standardlookups.hp.status.ovl	SNMP HPE ProLiant Physical Disk sensor SNMP HPE ProLiant System Health sensor
prtg.standardlookups.hp.statuswarning.ovl	N/A
prtg.standardlookups.http.statuscode.ovl	Cloud HTTP sensor
prtg.standardlookups.http.statuscodedetailed.ovl	N/A
prtg.standardlookups.hyperv.clusternodestatus.ovl	N/A
prtg.standardlookups.hyperv.communicationstate.ovl	N/A
prtg.standardlookups.hyperv.computerstate.ovl	N/A
prtg.standardlookups.hyperv.hoststatus.ovl	N/A
prtg.standardlookups.hyperv.virtualserverstate.ovl	N/A

Standard Lookup	Used by
prtg.standardlookups.hyperv.vmsstatus.ovl	N/A
prtg.standardlookups.ibm.OperationalStatus.ovl	SNMP IBM System X Logical Disk sensor SNMP IBM System X Physical Disk sensor SNMP IBM System X Physical Memory sensor
prtg.standardlookups.ibm.OverallStatus.ovl	SNMP IBM System X System Health sensor
prtg.standardlookups.ibm.psstatus.ovl	SNMP IBM System X System Health sensor
prtg.standardlookups.ipmi.powersupply.ovl	N/A
prtg.standardlookups.juniper.fanstatus.ovl	SNMP Juniper NS System Health sensor
prtg.standardlookups.juniper.powerstatus.ovl	SNMP Juniper NS System Health sensor
prtg.standardlookups.lanmanager.servicestate.ovl	SNMP Windows Service sensor
prtg.standardlookups.liebert.lgppwrbattery.lgppwrbatterycharges.tatus.ovl	Device template for Liebert UPS
prtg.standardlookups.liebert.lgppwrbattery.capacitystatus.ovl	Device template for Liebert UPS
prtg.standardlookups.liebert.lgppsysstatus.lgppsysselftestresult.ovl	Device template for Liebert UPS
prtg.standardlookups.microsoft.applicationpoolstate.ovl	PerfCounter IIS Application Pool sensor
prtg.standardlookups.mqtt.rttstate.ovl	MQTT Round Trip v1 sensor (deprecated)
prtg.standardlookups.netapp.aggrstate.ovl	NetApp Aggregate sensor
prtg.standardlookups.netapp.batterystate.ovl	NetApp System Health sensor
prtg.standardlookups.netapp.dfstatus.ovl	SNMP NetApp Disk Free sensor

Standard Lookup	Used by
prtg.standardlookups.netapp.fsstatus.ovl	SNMP NetApp System Health sensor
prtg.standardlookups.netapp.healthstate.ovl	NetApp System Health sensor
prtg.standardlookups.netapp.lunalignment.ovl	SNMP NetApp Logical Unit sensor
prtg.standardlookups.netapp.lunstate.ovl	NetApp LUN sensor
prtg.standardlookups.netapp.mirrorstate.ovl	NetApp SnapMirror sensor
prtg.standardlookups.netapp.nichealth.ovl	NetApp NIC sensor
prtg.standardlookups.netapp.nodestorageconfiguration.ovl	NetApp System Health sensor
prtg.standardlookups.netapp.notavailable.ovl	N/A
prtg.standardlookups.netapp.relationshipstate.ovl	NetApp SnapMirror sensor
prtg.standardlookups.netapp.relationshipstatus.ovl	NetApp SnapMirror sensor
prtg.standardlookups.netapp.sparestate.ovl	N/A
prtg.standardlookups.netapp.takeoverstatus.ovl	SNMP NetApp System Health sensor
prtg.standardlookups.netapp.tempstate.ovl	NetApp System Health sensor
prtg.standardlookups.nutanix-mib.clusterstaus.ovl	SNMP Nutanix Cluster Health sensor
prtg.standardlookups.offon.stateless.ovl	N/A
prtg.standardlookups.offon.stateonok.ovl	SNMP IBM System X Physical Memory sensor
prtg.standardlookups.oracle.tablespace.onlinestatus.ovl	Oracle Tablespace sensor
prtg.standardlookups.oracle.tablespace.status.ovl	Oracle Tablespace sensor
prtg.standardlookups.paessler.dellemc.lookup_health_status.ovl	Dell EMC Unity Enclosure Health v2 sensor Dell EMC Unity Storage LUN v2 sensor












Standard Lookup	Used by
	Dell EMC Unity Storage Pool v2 sensor
prtg.standardlookups.paessler.microsoft365.overall_component_state.ovl	Microsoft 365 Service Status Advanced sensor
prtg.standardlookups.paessler.microsoft365.service_component_state.ovl	Microsoft 365 Service Status Advanced sensor
prtg.standardlookups.paessler.microsoftazure.virtual_machine_status.ovl	Microsoft Azure Virtual Machine sensor
prtg.standardlookups.paessler.modbus.lookup_boolean.ovl	Modbus TCP Custom sensor
prtg.standardlookups.paessler.momodns.lookup_records_found.ovl	DNS v2 sensor
prtg.standardlookups.paessler.momooffice365.overall_component_state.ovl	N/N (deprecated)
prtg.standardlookups.paessler.momooffice365.service_component_state.ovl	N/N (deprecated)
prtg.standardlookups.paessler.momozoom.lookup_service_statuses.ovl	Zoom Service Status sensor
prtg.standardlookups.paessler.mqtt.rttstate.ovl	MQTT Round Trip sensor
prtg.standardlookups.paessler.opcua.negative_boolean_lookup.ovl	OPC UA Custom sensor
prtg.standardlookups.paessler.opcua.positive_boolean_lookup.ovl	OPC UA Custom sensor
prtg.standardlookups.paessler.opcua.self_signed_certificate.ovl	OPC UA Certificate sensor
prtg.standardlookups.paessler.opcua.server_state.ovl	OPC UA Server Status sensor
prtg.standardlookups.paessler.orchestra.lookup_adapter_state.ovl	Soffico Orchestra Channel Health sensor
prtg.standardlookups.paessler.paecloud.cloud_status.ovl	N/A
prtg.standardlookups.paessler.paecloud.status_code.ovl	Cloud HTTP v2 sensor Cloud Ping v2 sensor




Standard Lookup	Used by
prtg.standardlookups.QNAP.HDStatus.ovl	SNMP QNAP Physical Disk sensor
prtg.standardlookups.QNAP.SMARTStatus.ovl	SNMP QNAP Physical Disk sensor
prtg.standardlookups.QNAP.VolStatus.ovl	SNMP QNAP Logical Disk sensor
prtg.standardlookups.radius.status.ovl	RADIUS v2 sensor
prtg.standardlookups.rfc.hardwarestatus.ovl	SNMP Dell Hardware sensor SNMP Hardware Status sensor
prtg.standardlookups.sigfox.device.state.ovl	Device template for Sigfox
prtg.standardlookups.sigfox.device.token.state.ovl	Device template for Sigfox
prtg.standardlookups.sigfox.keepalive.ovl	REST Custom sensor template for Sigfox
prtg.standardlookups.sip.statuscode.ovl	SIP Options Ping sensor
prtg.standardlookups.snmpprinter.cartridgelevel.ovl	SNMP Printer sensor
prtg.standardlookups.snmpprinter.coverstate.ovl	SNMP Printer sensor
prtg.standardlookups.sshsan.health.ovl	SSH SAN Enclosure sensor SSH SAN Logical Disk sensor SSH SAN Physical Disk sensor
prtg.standardlookups.sshsan.status.ovl	SSH SAN System Health sensor
prtg.standardlookups.sslcertificatesensor.cncheck.ovl	SSL Certificate sensor
prtg.standardlookups.sslcertificatesensor.publickey.ovl	SSL Certificate sensor
prtg.standardlookups.sslcertificatesensor.publickeyecc.ovl	SSL Certificate sensor
prtg.standardlookups.sslcertificatesensor.revoked.ovl	SSL Certificate sensor
prtg.standardlookups.sslcertificatesensor.selfsigned.ovl	SSL Certificate sensor
prtg.standardlookups.sslcertificatesensor.trustedroot.ovl	SSL Certificate sensor

Standard Lookup	Used by
prtg.standardlookups.sslsensor.acceptokdeniednone.ovl	N/A
prtg.standardlookups.sslsensor.acceptwarndeniedok.ovl	N/A
prtg.standardlookups.sslsensor.security.compatibility.ovl	N/A
prtg.standardlookups.sslsensor.security.ovl	SSL Security Check sensor
prtg.standardlookups.sslsensor.ssl.ovl	SSL Security Check sensor
prtg.standardlookups.sslsensor.tls.ovl	SSL Security Check sensor
prtg.standardlookups.Synology.DiskStatus.ovl	SNMP Synology Physical Disk sensor
prtg.standardlookups.Synology.RaidStatus.ovl	SNMP Synology Logical Disk sensor
prtg.standardlookups.Synology.Status.ovl	SNMP Synology System Health sensor
prtg.standardlookups.ups-mib.upsbattery.upsbatterystatus.ovl	Device template for Liebert UPS Device template for generic UPS
prtg.standardlookups.ups-mib.upsoutput.upsoutputsource.ovl	Device template for generic UPS
prtg.standardlookups.ups-mib.upstest.upstestresultsummary.ovl	Device template for generic UPS
prtg.standardlookups.wmi.antivir.ovl	WMI Security Center sensor
prtg.standardlookups.wmi.battery.ovl	WMI Battery sensor
prtg.standardlookups.wmi.battery.ups.ovl	N/A
prtg.standardlookups.wmi.diskhealth.health.ovl	WMI Disk Health sensor
prtg.standardlookups.wmi.diskhealth.operationalstatus.ovl	WMI Disk Health sensor
prtg.standardlookups.wmi.service.staterunningok.ovl	Windows IIS Application sensor
prtg.standardlookups.wmi.storagepool.health.ovl	WMI Storage Pool sensor

Standard Lookup	Used by
prtg.standardlookups.wmi.storagepool.operationalstatus.ovl	WMI Storage Pool sensor
prtg.standardlookups.yesno.statenook.ovl	Active Directory Replication Errors sensor Enterprise Virtual Array sensor NetApp System Health sensor SNMP Dell PowerEdge Physical Disk sensor SNMP HPE ProLiant Physical Disk sensor SNMP NetApp System Health sensor
prtg.standardlookups.yesno.statenookna.ovl	N/A
prtg.standardlookups.yesno.stateyesok.ovl	Enterprise Virtual Array sensor HL7 sensor NetApp LIF sensor NetApp LUN sensor NetApp NIC sensor NetApp SnapMirror sensor VMware Datastore (SOAP) sensor

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15.16 Support and Troubleshooting

If you need help with PRTG, there are several ways to get support and to troubleshoot issues that might come up.

Video Tutorials

Watch tutorials for PRTG from Paessler and other users.

- <https://www.paessler.com/learn/videos>

Paessler Knowledge Base

Search for information about PRTG in thousands of articles. You can also post your own questions and answers.

- <https://kb.paessler.com>

Open a Support Ticket

Users that purchased a license can open support tickets, which are usually answered by the Paessler support team in fewer than 24 hours on business days. Use the [support form](#)⁴²⁶⁶ that is available in PRTG to contact our the Paessler support team. This is the best way to quickly get detailed help. If you cannot use this form, contact us via our web page.

- <https://shop.paessler.com/en/openticket>

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