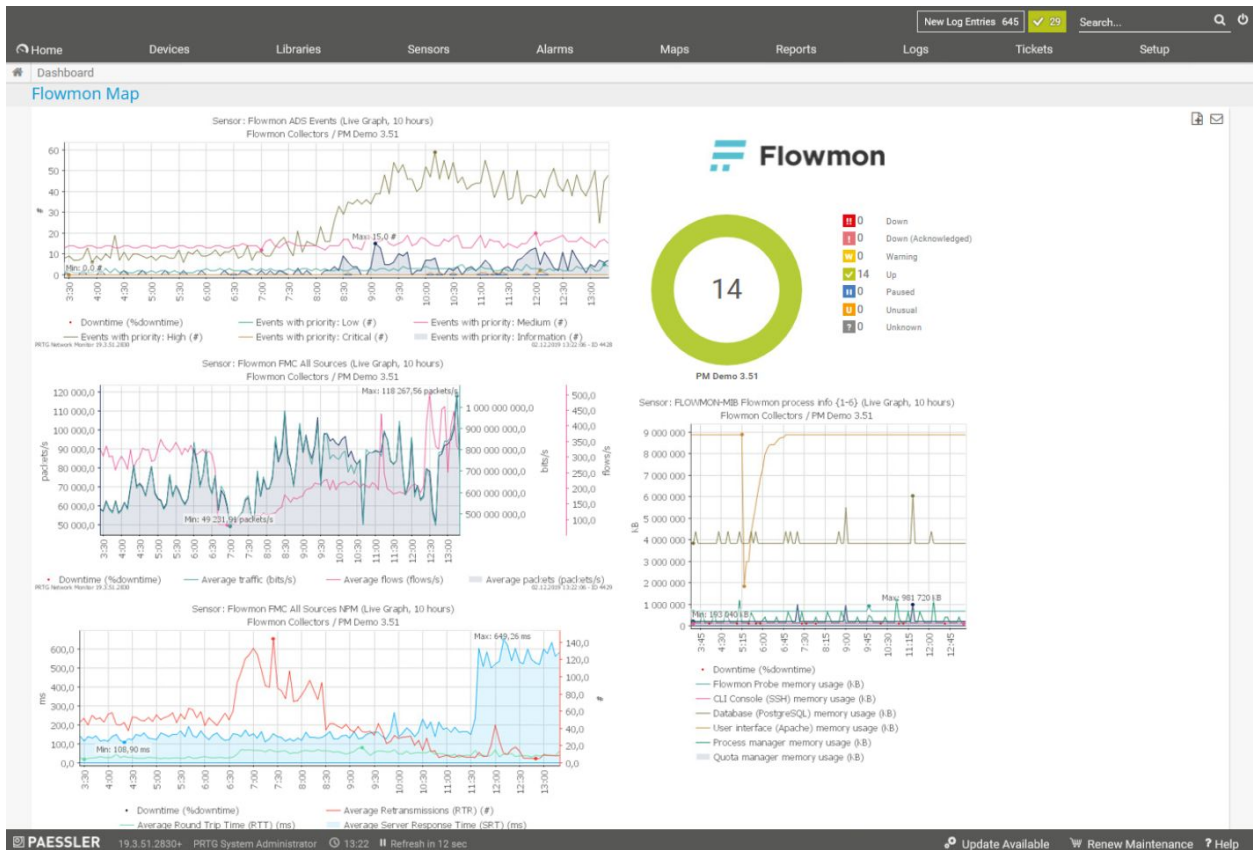


Integrating Flowmon with PRTG

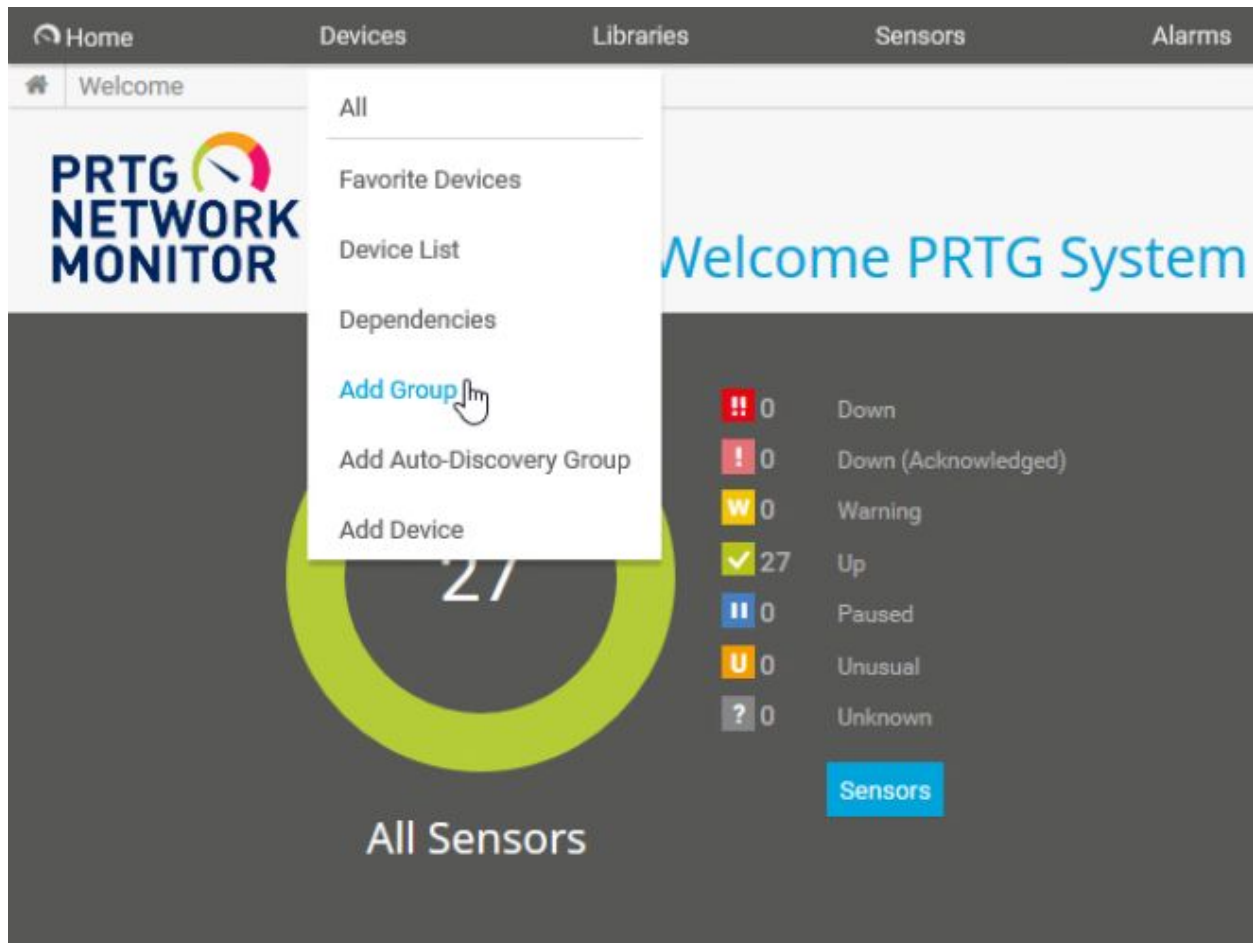
Flowmon customers using Paessler's PRTG Network Monitor can now monitor their Flowmon appliances via SNMP sensors, and ADS Event Statistics and FMC All Sources Profile with NPM statistics using a Python Script Advanced sensor provided by Flowmon. These sensors can be downloaded from [Flowmon Portal](#) as a zip file. After decompressing it, follow this guide to import all the useful information from Flowmon into your PRTG Network Monitor (Flowmon Python scripts are functional from PRTG version 20.1.55.1775+).



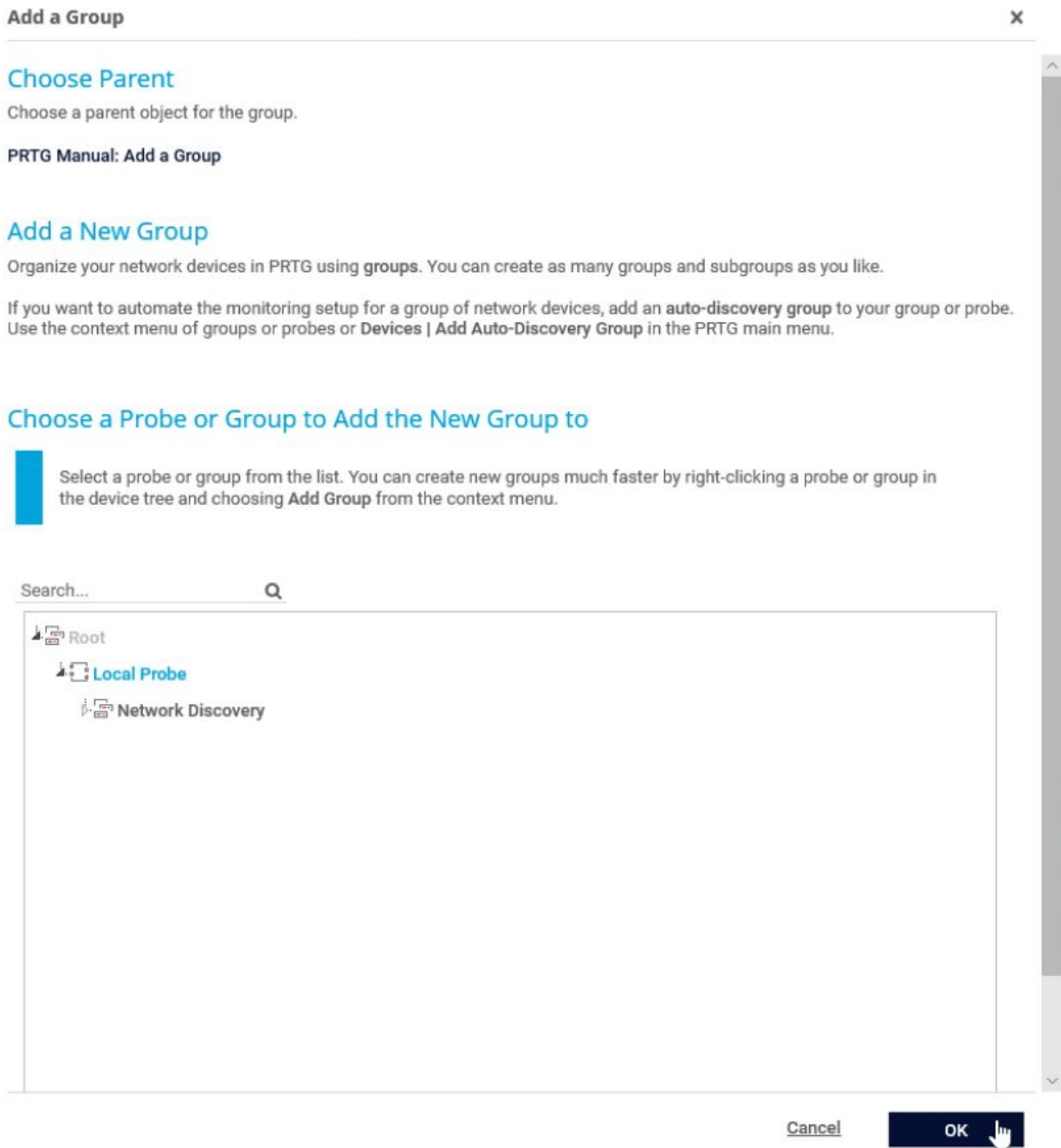
Adding Flowmon appliance to PRTG devices	2
SNMP monitoring of Flowmon in PRTG	9
Preparing PRTG environment for Flowmon Python scripts	15
ADS Event Statistics in PRTG	15
Recommended step	19
FMC Statistics in PRTG	21
Adding Widgets to PRTG Dashboard	25

Adding Flowmon appliance to PRTG devices

Copy the “**Flowmon_logo_small.png**” file from the unzipped folder to the \webroot\icons\devices subfolder of your PRTG program directory (default path is **C:\Program Files (x86)\PRTG Network Monitor\webroot\icons\devices**). Open the PRTG GUI in your browser (127.0.0.1), log in with default credentials and add a new Group by clicking on **Devices** in the upper menu and then on **Add Group**.



In section “**Choose a Probe or Group to Add the New Group to**” select a parent for the new group. For example, you can choose “Local Probe”. Then click on the **OK** button.



Enter the **Group Name**, for example “*Flowmon Collectors*” (this represents a set of devices in the GUI) and change the **Credentials for SNMP Devices** - set the **SNMP Version**, **Community String** and **SNMP Port** according to the settings of your **Flowmon appliance**, and set the **SNMP Timeout** to **60 seconds**. Then click on the **OK** button.

Add a Group to Local Probe



Credentials for VMware/XenServer



inherit from  Local Probe

(User: <empty>)

Credentials for SNMP Devices



inherit from  Local Probe (SNMP Version: V2, SNMP Port: 161, SNMP Timeou...)

SNMP Version ⓘ

☐ v1

☒ v2c (recommended)

☐ v3

Community String ⓘ

public

SNMP Port ⓘ

161

SNMP Timeout (Sec.) ⓘ

60

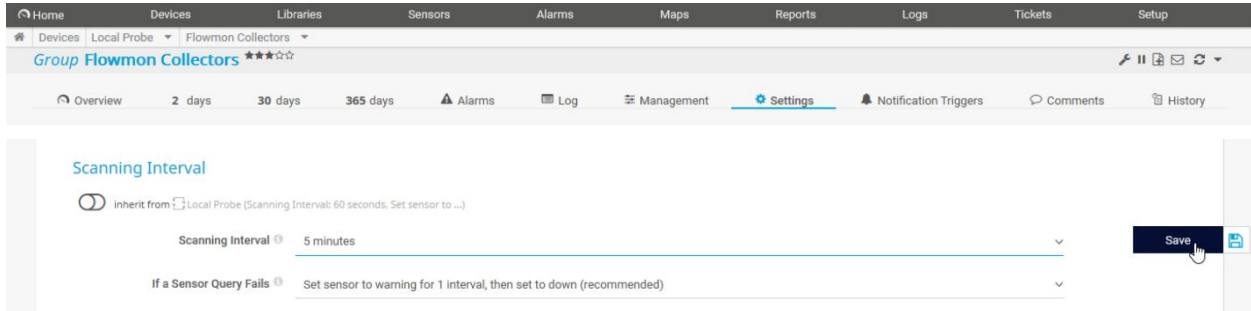
Due to internal limitations, you can only monitor a limited number of sensors per second when using SNMP v3. The main limiting factor is CPU power. Currently, PRTG is able to handle roughly 40 requests per second and computer core, depending on your system. This means that you can run about 5,000 SNMP v3 sensors with a 60-second scanning interval on a computer with two cores, and around 10,000 sensors with a 60-second interval on a system with four cores. If you experience an increased Interval Delay or Open Requests reading of the Probe Health sensor, you need to distribute the load over multiple probes. SNMP v1 and v2 do not have this limitation.

Cancel

OK

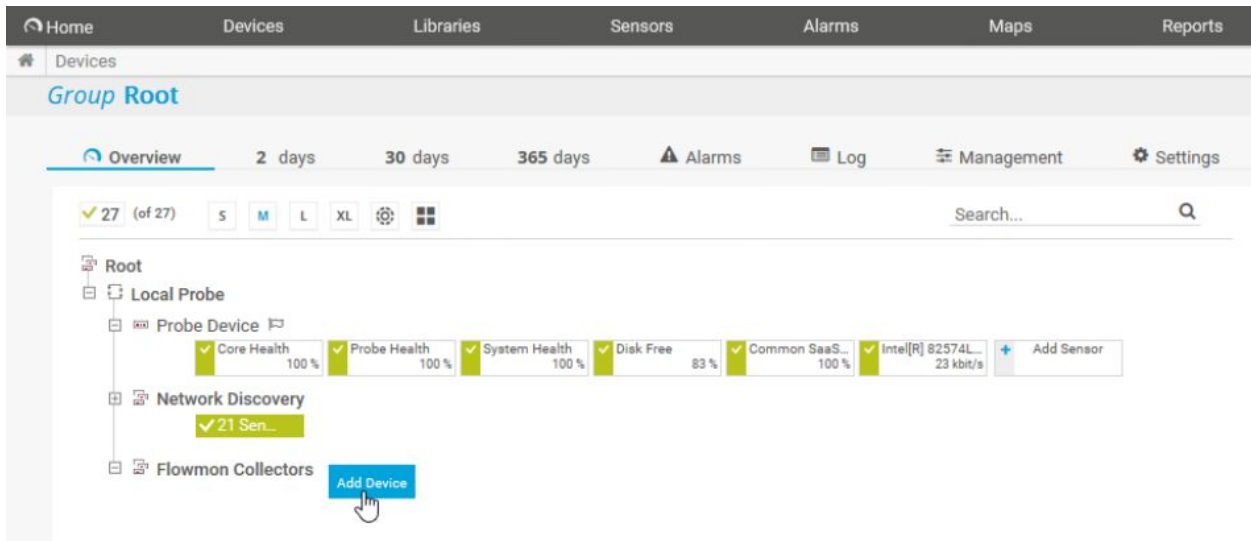


Go to the **Settings** of the newly created group and change the **Scanning Interval** to **5 minutes**. Then click on the **Save** button. Now the group settings are correctly set and the objects defined within this group will inherit the group settings.



The screenshot shows the 'Settings' tab for the 'Flowmon Collectors' group. The 'Scanning Interval' is set to '5 minutes'. The 'Save' button is highlighted with a mouse cursor.

To add your Flowmon appliance to the monitored devices, click on the **Add Device** button next to the newly created group.



The screenshot shows the 'Devices' page with a tree view. The 'Flowmon Collectors' group is selected, and the 'Add Device' button is highlighted with a mouse cursor.

Enter the **Device Name**, **IP Version**, **IP Address/DNS Name** of the Flowmon appliance and choose the **Flowmon logo as the Device Icon**. Then click on the **OK** button.

Add Device to Group Flowmon Collectors



Add a New Device

Define a device name and address, options for auto-discovery, and credential settings for Windows, Linux, VMware/XEN, and SNMP, if necessary.

[PRTG Manual: Add a Device](#)

Device Name and Address

Device Name ⓘ

PM Demo 3.51

IP Version ⓘ

☒ Connect using IPv4

☐ Connect using IPv6

IPv4 Address/DNS Name ⓘ

192.168.3.51

Tags ⓘ



Device Icon ⓘ

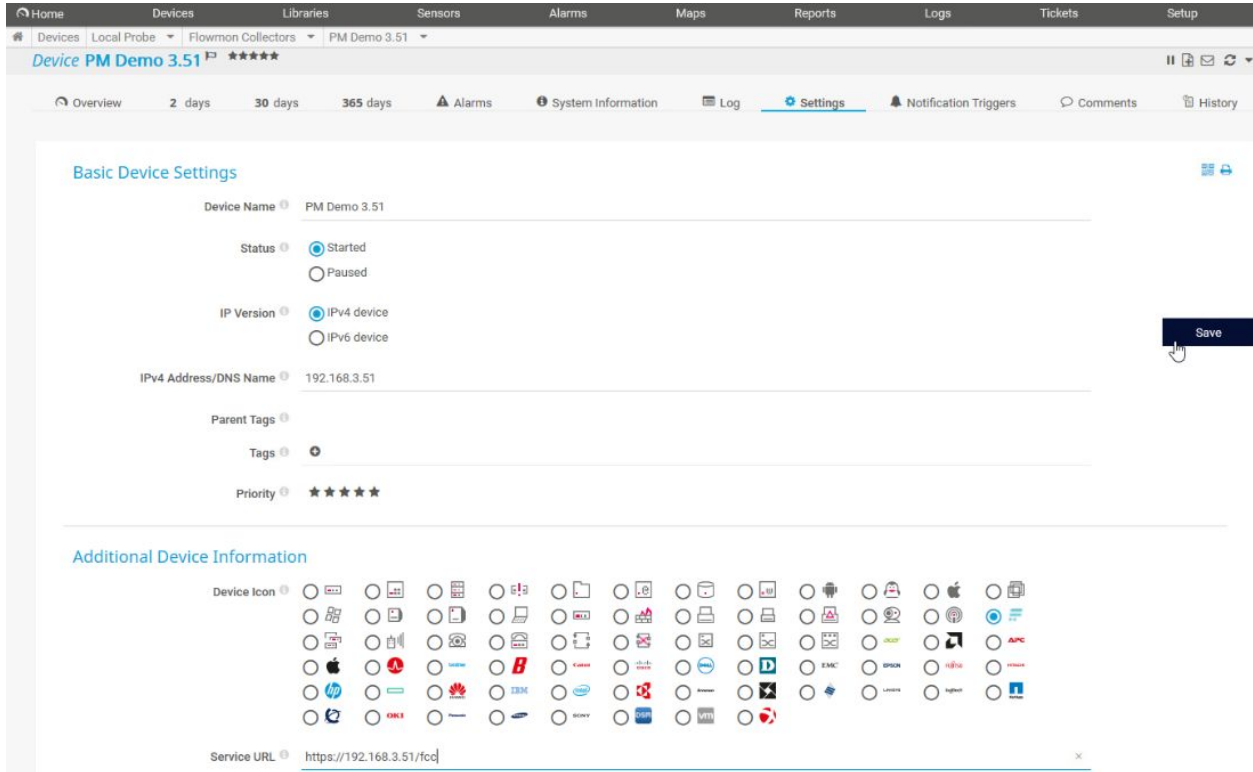


[Cancel](#)

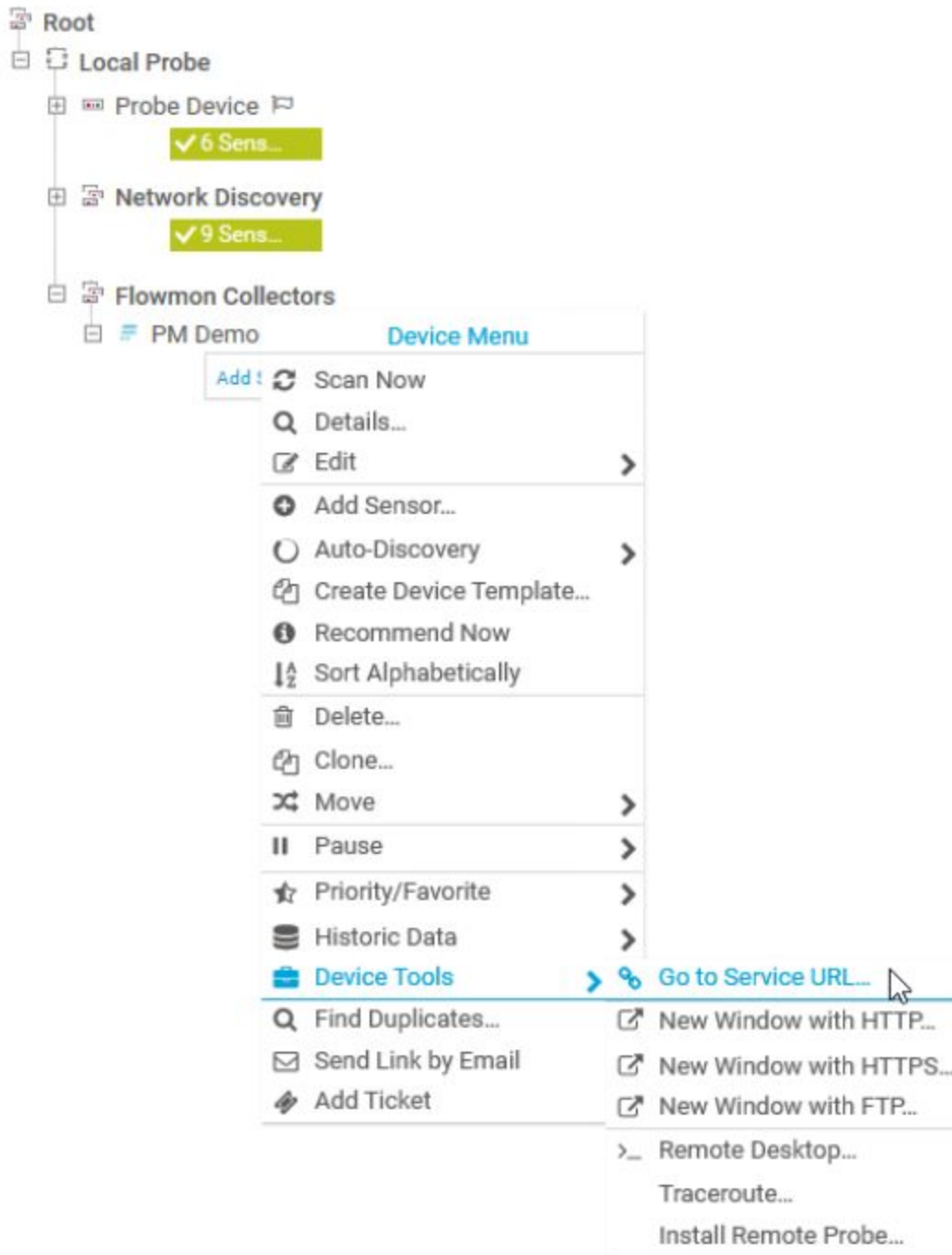
OK



Now go to the **Settings** of the newly added Flowmon appliance and enter the URL (with “https://” prefix) of this Flowmon device in **Service URL**. This will allow you to go to the settings of your Flowmon device in just 2 clicks directly from PRTG (Right click on the device, *Device Tools*, click on *Go to Service URL*)



The screenshot shows the Flowmon web interface. The top navigation bar includes Home, Devices, Libraries, Sensors, Alarms, Maps, Reports, Logs, Tickets, and Setup. Below this is a breadcrumb trail: Devices > Local Probe > Flowmon Collectors > PM Demo 3.51. The main content area is titled 'Device PM Demo 3.51' with a star rating. A sub-navigation bar shows Overview, 2 days, 30 days, 365 days, Alarms, System Information, Log, Settings (active), Notification Triggers, Comments, and History. The 'Basic Device Settings' section includes: Device Name (PM Demo 3.51), Status (radio buttons for Started and Paused, with Started selected), IP Version (radio buttons for IPv4 device and IPv6 device, with IPv4 device selected), IPv4 Address/DNS Name (192.168.3.51), Parent Tags, Tags, and Priority (★★★★★). A 'Save' button is on the right. The 'Additional Device Information' section features a 'Device Icon' grid with various logos and a 'Service URL' field containing 'https://192.168.3.51/fcd'.



The screenshot displays the Flowmon interface. On the left, a tree view shows the hierarchy: Root > Local Probe > Probe Device (with a green status bar '✓ 6 Sens...') > Network Discovery (with a green status bar '✓ 9 Sens...') > Flowmon Collectors > PM Demo. A context menu, titled 'Device Menu', is open over the 'PM Demo' item. The menu contains the following items:

- Add: Scan Now
- Details...
- Edit
- Add Sensor...
- Auto-Discovery
- Create Device Template...
- Recommend Now
- Sort Alphabetically
- Delete...
- Clone...
- Move
- Pause
- Priority/Favorite
- Historic Data
- Device Tools
- Find Duplicates...
- Send Link by Email
- Add Ticket

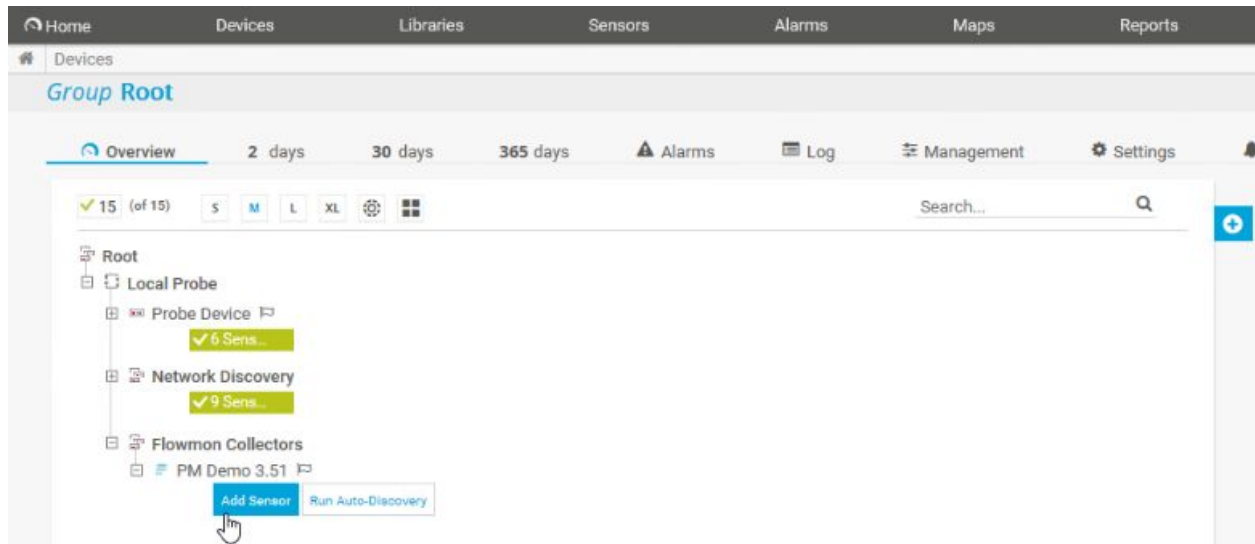
The 'Device Tools' item is expanded, showing a sub-menu with the following options:

- Go to Service URL...
- New Window with HTTP...
- New Window with HTTPS...
- New Window with FTP...
- Remote Desktop...
- Traceroute...
- Install Remote Probe...

SNMP monitoring of Flowmon in PRTG

To monitor your Flowmon appliance in PRTG through SNMP, open the downloaded and unzipped Flowmon_PRTG_Package folder, open the SNMP folder and copy the “**FLOWMON-MIB for PRTG.oidlib**” file to the snmplibs directory of your PRTG system (default path is **C:\Program Files (x86)\PRTG Network Monitor\snmplibs**).

To add new sensors to the device, click on the **Add Sensor** button.



Search for the “**SNMP library**” sensor type and click on it:

Home
Devices
Libraries
Sensors
Alarms
Maps

Devices
Local Probe
Flowmon Collect...
PM Demo 3.51
Add Sensor (Step 1 of 2)

Add Sensor to Device PM Demo 3.51 [192.168.3.51]

Monitor What?

☐ Availability/Uptime
☐ Bandwidth/Traffic
☐ Speed/Performance
☐ CPU Usage
☐ Disk Usage

☐ Memory Usage
☐ Hardware Parameters
☐ Network Infrastructure
☐ Custom Sensors

Target System Type?

☐ Windows
☐ Linux/macOS
☐ Virtualization OS

☐ Email Server
☐ Database
☐ Cloud Services

Storage and File Server

< Cancel sensor creation



Search
snmp lib

Matching Sensor Types

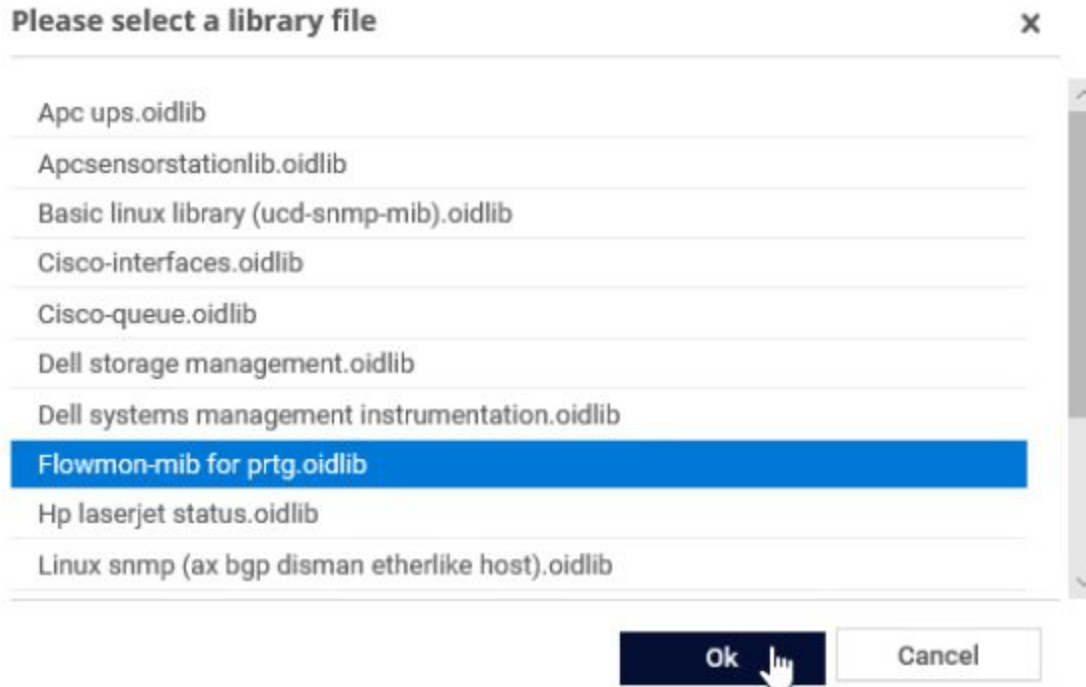
SNMP Library
?

Monitors a device using SNMP and compiled MIB files ("SNMP Libraries (oidlib)")

Monitors Cisco interfaces and queue, Dell systems and storages, APC UPS (battery ems status), Linux (AX BGP DisMan EtherLike Host Framework Proxy Noti v2 IP Net Noti OSPF RMON SMUX Source TCP UCD UDP), etc. as well as any other SNMP devices using your imported MIB files.

Select the “**Flowmon-mib for prtg.oidlib**” file and click on the **OK** button.



Select the items you want to monitor (we recommend **selecting all items**) and click on the **Create** button.

[Home](#)
[Devices](#)
[Libraries](#)
[Sensors](#)
[Alarms](#)
[Maps](#)
[Reports](#)
[Logs](#)
[Tickets](#)
[Setup](#)

[Devices](#)
[Local Probe](#)
[Flowmon Collect...](#)
[PM Demo 3.51](#)
[Add Sensor \(Step 2 of 2\)](#)

Add Sensor to Device PM Demo 3.51 [192.168.3.51]
(Step 2 of 2)

Cancel

Basic Sensor Settings

Parent Tags

Tags
snmplibrarysensor

Priority
★★★★☆

Create

















SNMP Library Specific

Library
C:\Program Files (x86)\PRTG Network Monitor\snmplibs\FLOWMON-MIB for PRTG.oidlib

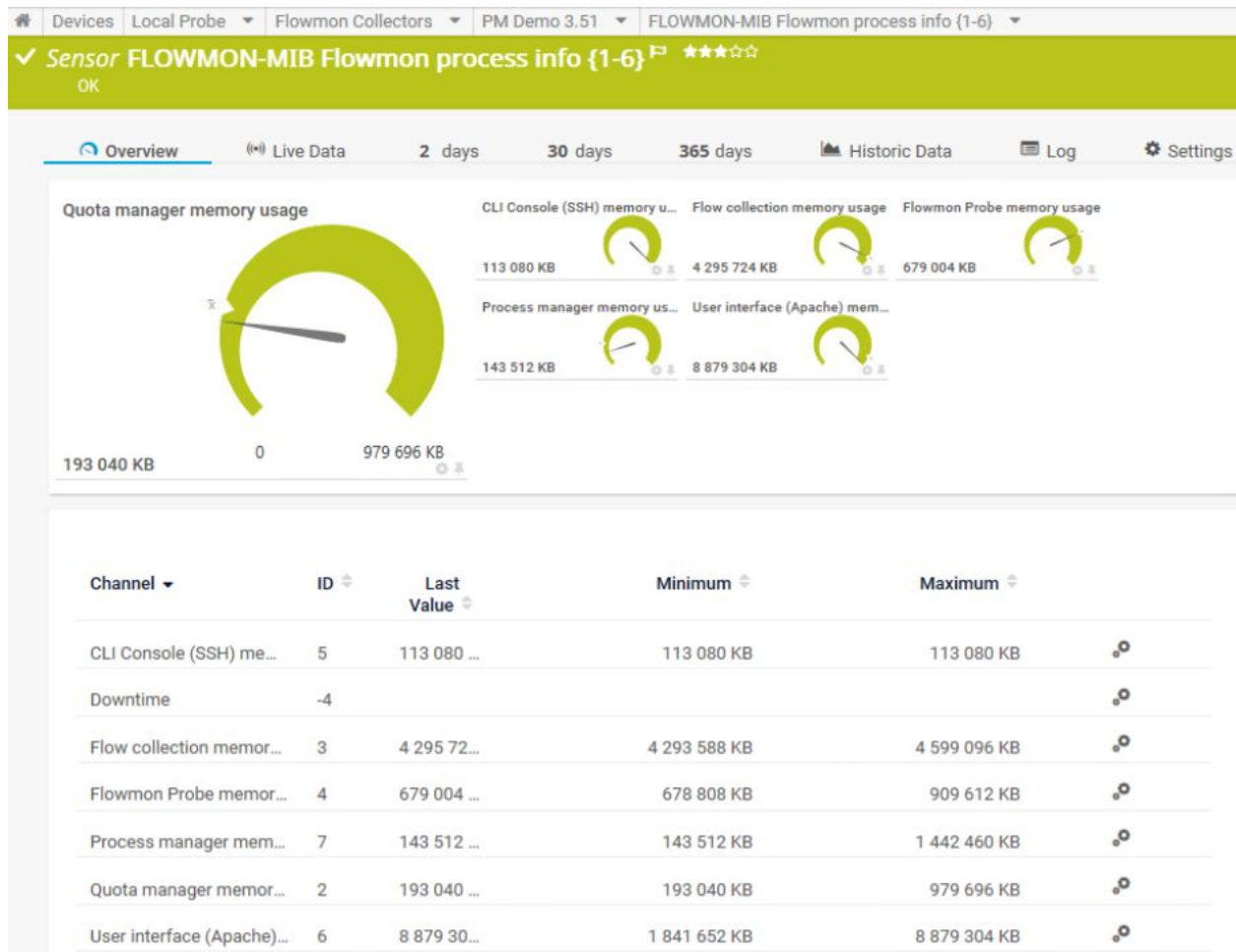
Library OIDs
Search...

<input checked="" type="checkbox"/> MIB Module	Category	Name
<input checked="" type="checkbox"/> FLOWMON-MIB	Flowmon appliance info	Flowmon hostname
<input checked="" type="checkbox"/> FLOWMON-MIB	Flowmon process info	Flowmon Probe memory usage
<input checked="" type="checkbox"/> FLOWMON-MIB	Flowmon process info	Flowmon Probe state
<input checked="" type="checkbox"/> FLOWMON-MIB	Flowmon process info	Flow collection memory usage
<input checked="" type="checkbox"/> FLOWMON-MIB	Flowmon process info	Flow collection state
<input checked="" type="checkbox"/> FLOWMON-MIB	Flowmon process info	Quota manager memory usage
<input checked="" type="checkbox"/> FLOWMON-MIB	Flowmon process info	Quota manager state
<input checked="" type="checkbox"/> FLOWMON-MIB	Flowmon process info	Process manager memory usage
<input checked="" type="checkbox"/> FLOWMON-MIB	Flowmon process info	Process manager state
<input checked="" type="checkbox"/> FLOWMON-MIB	Flowmon process info	User interface (Apache) memory usage

In a few minutes, all the sensors should be up and running and you can start monitoring your Flowmon appliance.

Pos ▾	Sensor ▴	Status ▴	Message	Graph	Priority ▴	
1.	✓ CLI Console (SSH) state	Up	active	 21 msec	★★★★☆	
2.	✓ Database (PostgreSQL) state	Up	active	 22 msec	★★★★☆	
3.	✓ Flow collection state	Up	active	 7 568 msec	★★★★☆	
4.	✓ Flowmon hostname	Up	demopm.localdomain	 13 msec	★★★★☆	
5.	✓ Flowmon load	Up	load average: 1.57, 1.51, 1.54	 30 msec	★★★★☆	
6.	✓ Flowmon Probe state	Up	active	 1 786 msec	★★★★☆	
7.	✓ Flowmon uptime	Up	up 1 week, 21 hours, 1 minute	 30 msec	★★★★☆	
8.	✓ Process manager state	Up	active	 2 584 msec	★★★★☆	
9.	✓ Quota manager state	Up	active	 21 msec	★★★★☆	
10.	✓ User interface (Apache) sta...	Up	active	 18 msec	★★★★☆	
11.	✓ FLOWMON-MIB Flowmon p...	Up	OK	 193 040 KB	★★★★☆	

For the first 10 sensors, the main thing to monitor is the “Message” column. To monitor the memory usage of processes, click on the sensor “FLOWMON-MIB Flowmon process info {1-6}”. There you can see the minimum, maximum and a last value of the services memory usage, as well as a graph of memory usage.



Preparing the PRTG environment for Flowmon Python scripts

To run the sensors provided by Flowmon on PRTG, you will need to **add the Python requests library** to the PRTG's own Python runtime. To do this, just **follow these six steps**:

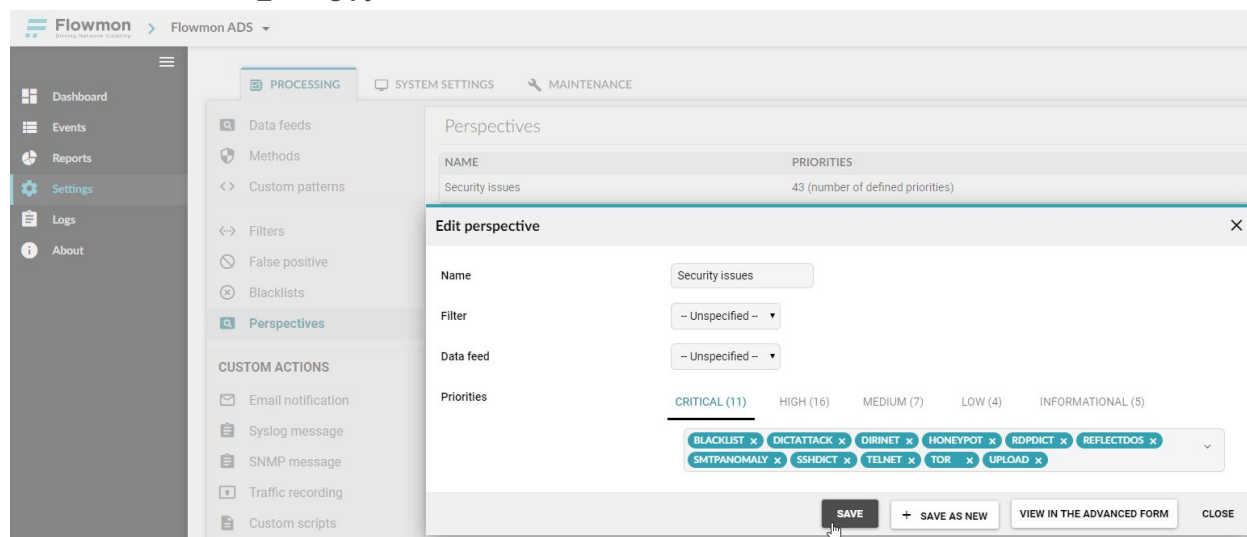
1. Copy the get-pip.py file from the zip into PRTG's Python directory C:\Program Files (x86)\PRTG Network Monitor\python\
2. Open the command line as administrator and run the following commands
3. cd C:\Program Files (x86)\PRTG Network Monitor\python\
4. python.exe get-pip.py
5. cd Scripts
6. pip install requests

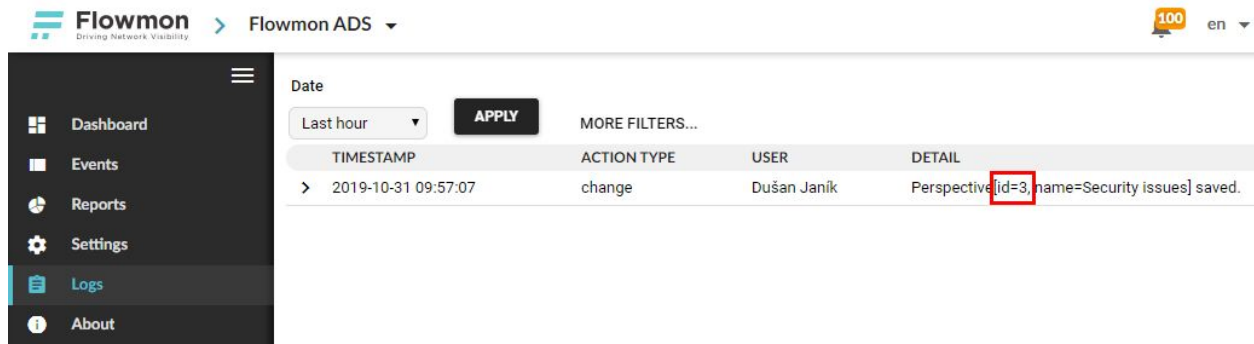
ADS Event Statistics in PRTG

To display ADS event statistics in PRTG, Flowmon provides you with a Python script that can be run in PRTG as a Python Script Advanced Sensor. Open the ADS directory in the downloaded and unzipped directory. This directory contains 2 files - *FlowmonADS_EventsByPriority.py* and *FlowmonADS_config.py*.

When you have successfully [installed the requests library](#), open the **FlowmonADS_config.py** file and set the attributes in it. These attributes are the **username and password for the REST API client** and **ID of the ADS perspective**. To get the ID of the ADS perspective, follow these steps:

1. Go to **Flowmon ADS / Settings / Processing tab / Perspectives** and click on the **Edit** button of the perspective you want to see in PRTG. In the **Edit perspective** window, just click on the **Save** button, you don't need to edit anything if you don't want to.
2. Go to **Flowmon ADS / Logs**. A few seconds after clicking **Save** in the previous step, a log will be created. The detail of this log will contain the ID of the perspective. This ID needs to be set in the **FlowmonADS_config.py** file.



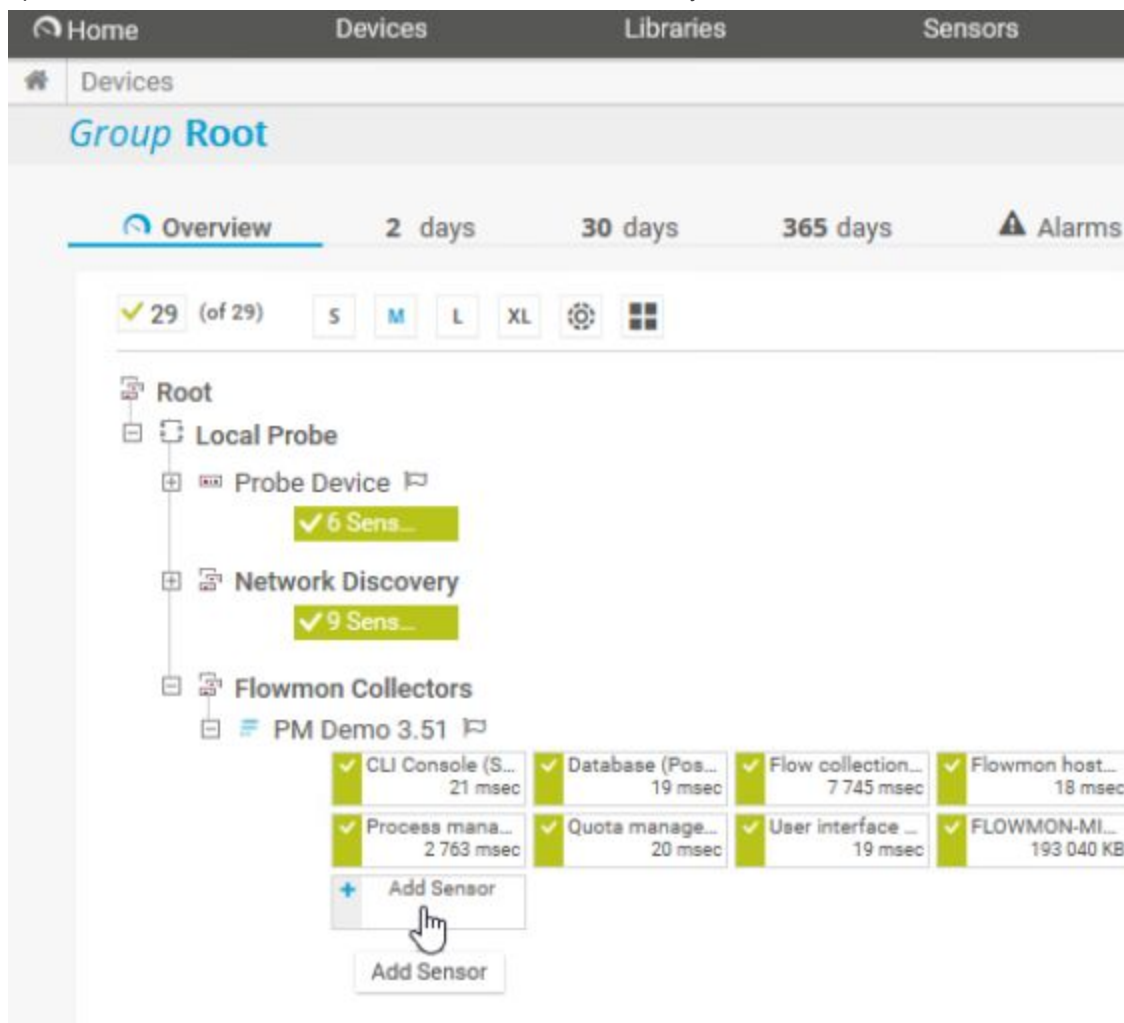


Flowmon ADS interface showing a log entry. The log entry details are as follows:

DATE	ACTION TYPE	USER	DETAIL
2019-10-31 09:57:07	change	Dušan Janik	Perspective [id=3, name=Security issues] saved.

Now copy the `FlowmonADS_EventsByPriority.py` file and the edited `FlowmonADS_config.py` file to the `C:\Program Files (x86)\PRTG Network Monitor\Custom Sensors\python` directory.

Open the PRTG GUI and click on the **Add Sensor** button below your Flowmon device.



PRTG GUI interface showing the 'Add Sensor' button for a Flowmon device. The device is listed under 'Flowmon Collectors' with a status of 'PM Demo 3.51'. The 'Add Sensor' button is highlighted with a hand cursor.

Search for the “**Python Script Advanced**” sensor and click on it:

Home
Devices
Libraries
Sensors
Alarms
Maps

Devices
Local Probe
Flowmon Collectors
PM Demo 3.51
Add Sensor (Step 1 of 2)

Add Sensor to Device PM Demo 3.51 [192.168.3.51]

Monitor What?

☐ Availability/Uptime
☐ Bandwidth/Traffic
☐ Speed/Performance
☐ CPU Usage
☐ Disk Usage

Target System Type?

☐ Windows
☐ Linux/macOS
☐ Virtualization OS
☐ Storage and File Server

Monitor What?

☐ Memory Usage
☐ Hardware Parameters
☐ Network Infrastructure
☐ Custom Sensors

Target System Type?

☐ Email Server
☐ Database
☐ Cloud Services

< Cancel sensor creation


Search
python

Matching Sensor Types

Python Script Advanced
?

Runs a Python script that returns XML or JSON

The Python script file must be stored on the probe system where you create this sensor.



Enter the **Sensor Name** (e.g. Flowmon ADS Events), choose the **FlowmonADS_EventsByPriority.py** as **Python Script** file and click on the **Create** button.

Home Devices Libraries Sensors Alarms Maps Reports Logs Tickets Setup

Devices Local Probe Flowmon Collectors PM Demo 3.51 Add Sensor (Step 2 of 2)

Add Sensor to Device PM Demo 3.51 [192.168.3.51] (Step 2 of 2)

< Cancel

Basic Sensor Settings

Sensor Name

Parent Tags

Tags

Priority ☒ ☐ ☐ ☐ ☐

Create

Sensor Settings

Note Important: The Python script file has to run on the computer where the parent probe is installed, not on the parent device.

Python Script

Security Context ☒ Use security context of probe service ☐ Use Windows credentials of parent device

Device Credentials ☒ Do not transmit device credentials ☐ Transmit Windows credentials ☐ Transmit Linux credentials ☐ Transmit SNMP credentials ☐ Transmit all device credentials

Additional Parameters

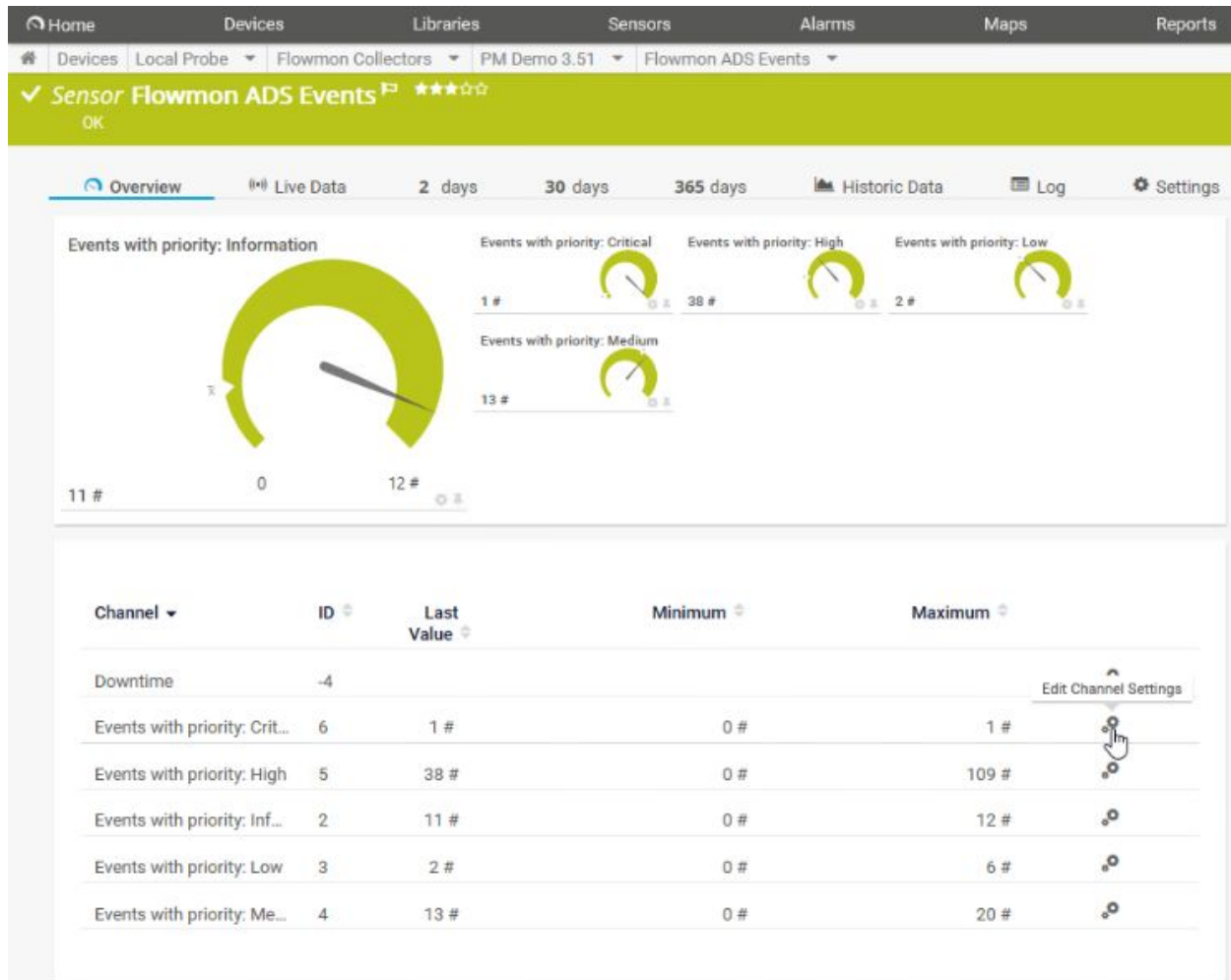
Mutex Name

After a few minutes the sensor should be up and running. There will be 5 channels added, one to every event priority based on the chosen perspective.



Recommended step

When the first scan is completed, 5 channels will be created. We recommend that you change the channel colors to match the colors of Flowmon ADS - click on the **Edit Channel Settings** button next to the channel:



Then change the **Line Color** to **Manual** and set the **color** as follows:

Critical: f44336

High: ff9800

Medium: ffc107

Low: 4caf50

Informational: 03a9f4

Downtime: 000000

Edit Channel

x

Line Color ⓘ

☐ Automatic

☒ Manual

Color (#rrggbb) ⓘ

#F44336



Line Width ⓘ

1

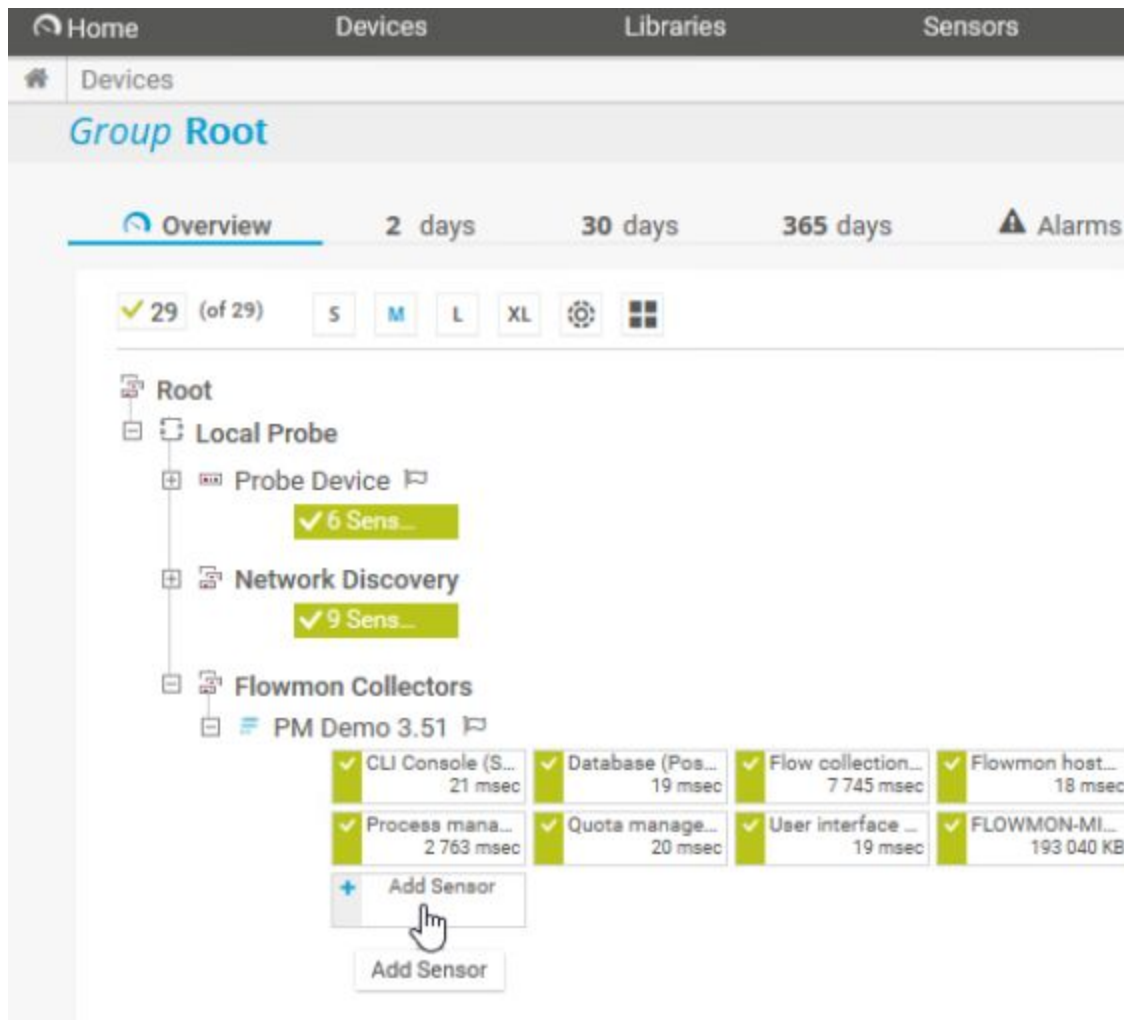
FMC Statistics in PRTG

To display FMC statistics in PRTG, Flowmon provides you with a Python script that can be run in PRTG as a Python Script Advanced Sensor. Open the FMC folder in the downloaded and unzipped folder. This folder contains 3 files - *FlowmonFMC_AllSources.py*, *FlowmonFMC_AllSourcesNPM.py* and *FlowmonFMC_config.py*.

When you have successfully [installed the requests library](#), open the **FlowmonFMC_config.py** file and set the attributes in it. These attributes are the **username and password for the REST API client**.

Now **copy all three files: FlowmonFMC_AllSources.py, FlowmonFMC_AllSourcesNPM.py and the edited FlowmonFMC_config.py** file to the **C:\Program Files (x86)\PRTG Network Monitor\Custom Sensors\python** directory.

Open the PRTG GUI and click on the **Add Sensor** button below your Flowmon device.



Search for the “**Python Script Advanced**” sensor and click on it:

Home
Devices
Libraries
Sensors
Alarms
Maps

Devices
Local Probe
Flowmon Collectors
PM Demo 3.51
Add Sensor (Step 1 of 2)

Add Sensor to Device PM Demo 3.51 [192.168.3.51]

Monitor What?

☐ Availability/Uptime
☐ Bandwidth/Traffic
☐ Speed/Performance
☐ CPU Usage
☐ Disk Usage

Target System Type?

☐ Windows
☐ Linux/macOS
☐ Virtualization OS
☐ Storage and File Server

☐ Memory Usage
☐ Hardware Parameters
☐ Network Infrastructure
☐ Custom Sensors
☐ Email Server
☐ Database
☐ Cloud Services

< Cancel sensor creation


Search
python

Matching Sensor Types

Python Script Advanced
?

Runs a Python script that returns XML or JSON

The Python script file must be stored on the probe system where you create this sensor.



Enter the **Sensor Name** (e.g. Flowmon FMC All Sources), choose the **FlowmonFMC_AllSources.py** as **Python Script** file and click on the **Create** button.

Add Sensor to Device PM Demo 3.51 [192.168.3.51]
(Step 2 of 2)

< Cancel

Basic Sensor Settings

Sensor Name ⓘ

Parent Tags ⓘ

Tags ⓘ pythonxml x python x xml x json x script x +

Priority ⓘ ★★☆☆☆

Create

Sensor Settings

Note Important: The Python script file has to run on the computer where the parent probe is installed, not on the parent device.

Python Script ⓘ

Security Context ⓘ ☒ Use security context of probe service
☐ Use Windows credentials of parent device

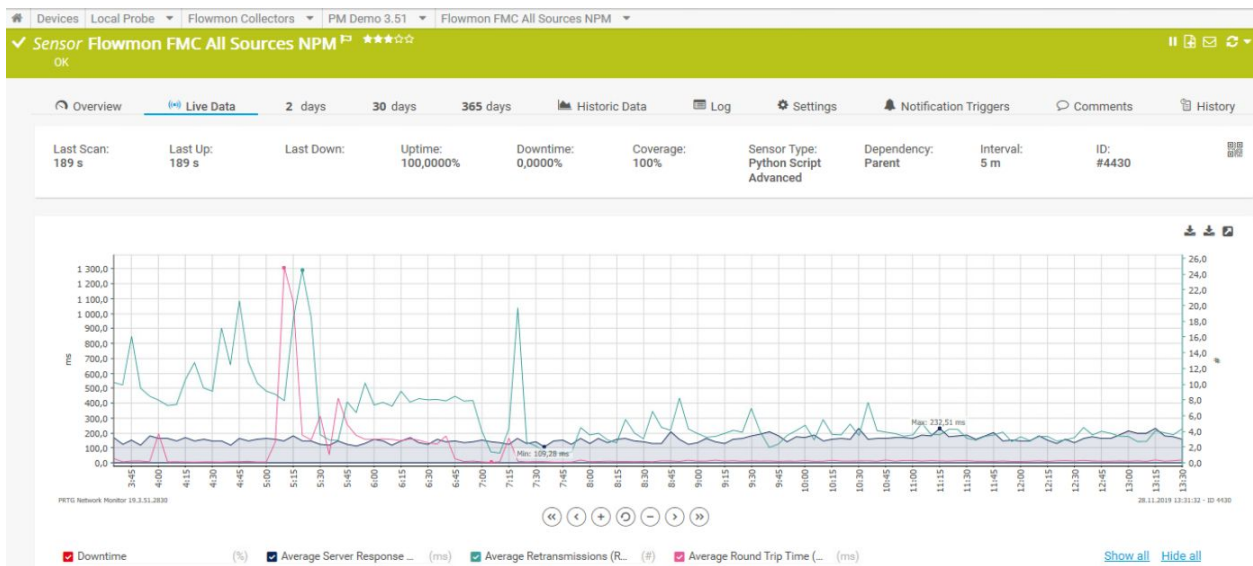
Device Credentials ⓘ ☒ Do not transmit device credentials
☐ Transmit Windows credentials
☐ Transmit Linux credentials
☐ Transmit SNMP credentials
☐ Transmit all device credentials

Additional Parameters ⓘ

Mutex Name ⓘ

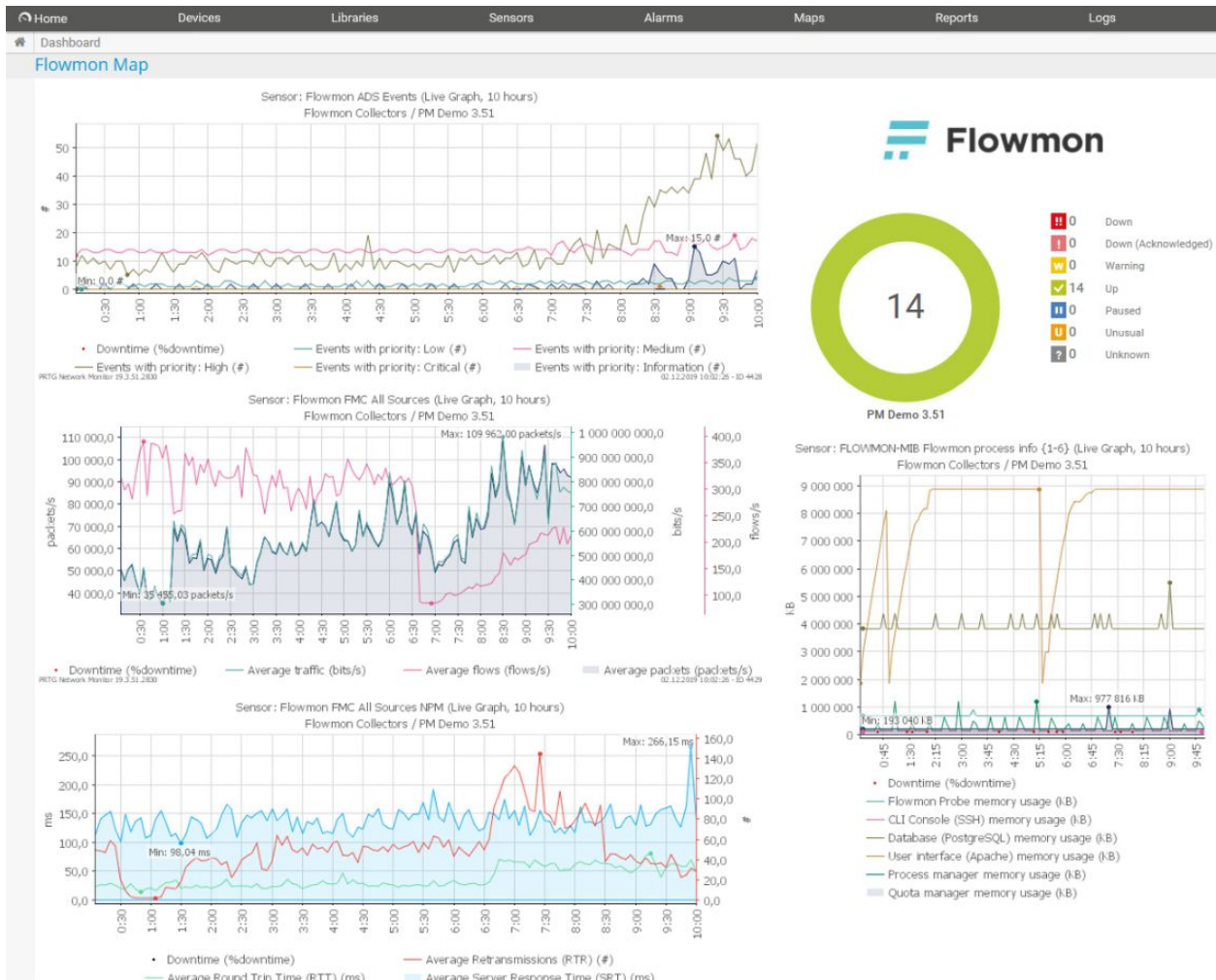
After a few minutes the sensor should be up and running.

To create another sensor for NPM statistics from the FMC All Sources profile, just **repeat the steps and choose the FlowmonFMC_AllSourcesNPM.py file as a Python Script**.



Adding Widgets to the PRTG Dashboard

To see all the important information about your monitored Flowmon appliance in one place, create a PRTG Map with graphs and other information from the sensors of the monitored appliance.

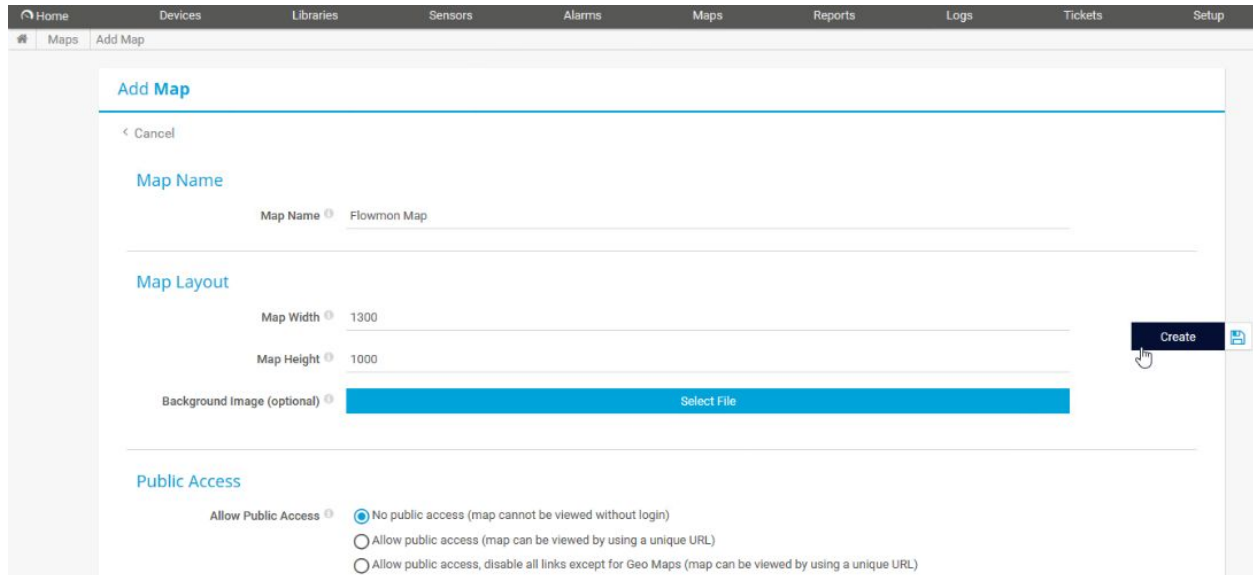


Locate the **Flowmon_logo_big.png** file in the unzipped **Flowmon_PRTG_Package** folder and **copy** it to the **C:\Program Files (x86)\PRTG Network Monitor\webroot\mapicons\iconset7** directory.

To create a new Map, click on the **Maps** button in the upper menu and then click on the **Add Map** button on the right side of the screen.



Now enter the **Map Name** (e.g. Flowmon Map) and the **Map Width** and **Height** (e.g. 1300x1000) and click on the **Create** button.

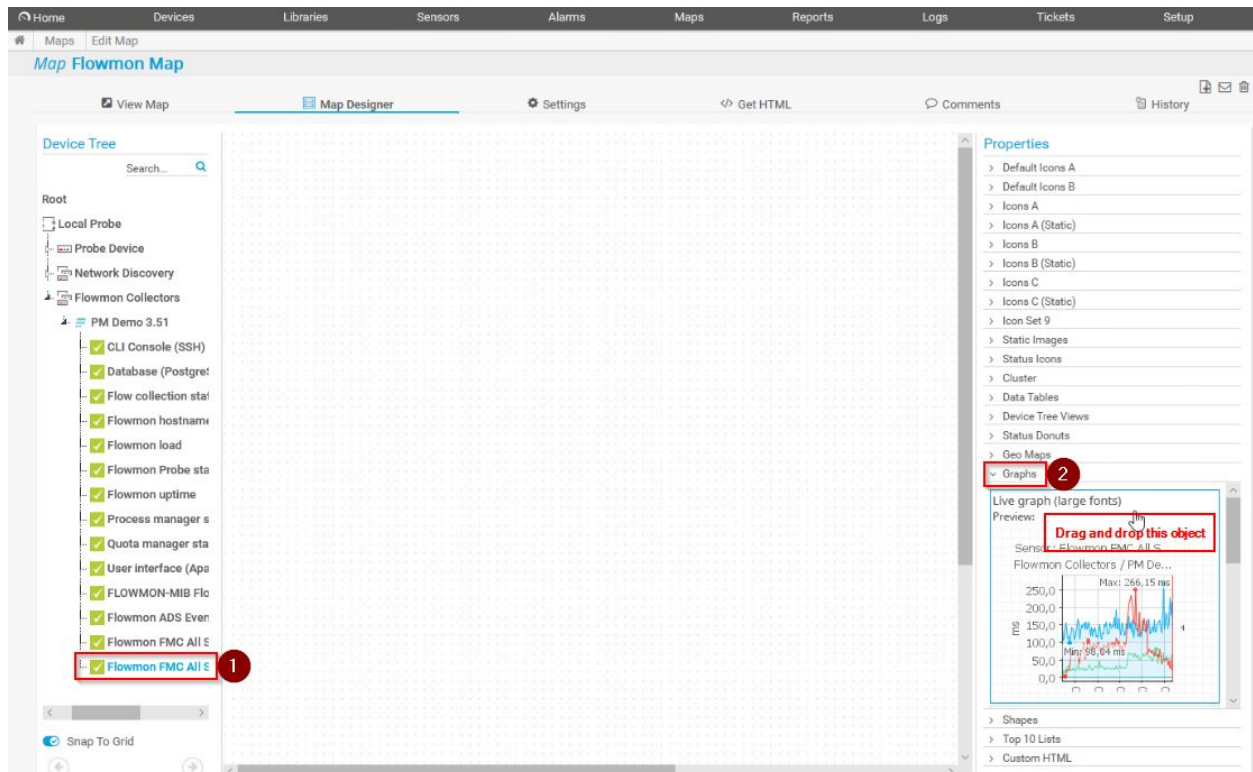


The 'Add Map' form is displayed with the following fields and options:

- Map Name:** Flowmon Map
- Map Width:** 1300
- Map Height:** 1000
- Background Image (optional):** Select File
- Public Access:**
 - ☒ No public access (map cannot be viewed without login)
 - ☐ Allow public access (map can be viewed by using a unique URL)
 - ☐ Allow public access, disable all links except for Geo Maps (map can be viewed by using a unique URL)

A **Create** button is located on the right side of the form.

After clicking on the **Create** button, Map Designer will open. There you can add widgets that will be displayed on the map. To add widgets of your Flowmon device, go to your Flowmon device in the **device tree** on the left side of the screen and click on the sensor from which you want to display information on the dashboard. To see the live graph of the chosen sensor, drag and drop a *Live graph* object in the *Graphs* group from the items list to the right of the main window of the Map Designer. To see the sensor states, choose the device in the device tree on the left and then drag and drop *All sensor states with name* (dark text) from the *Status Donuts* group in the right menu.



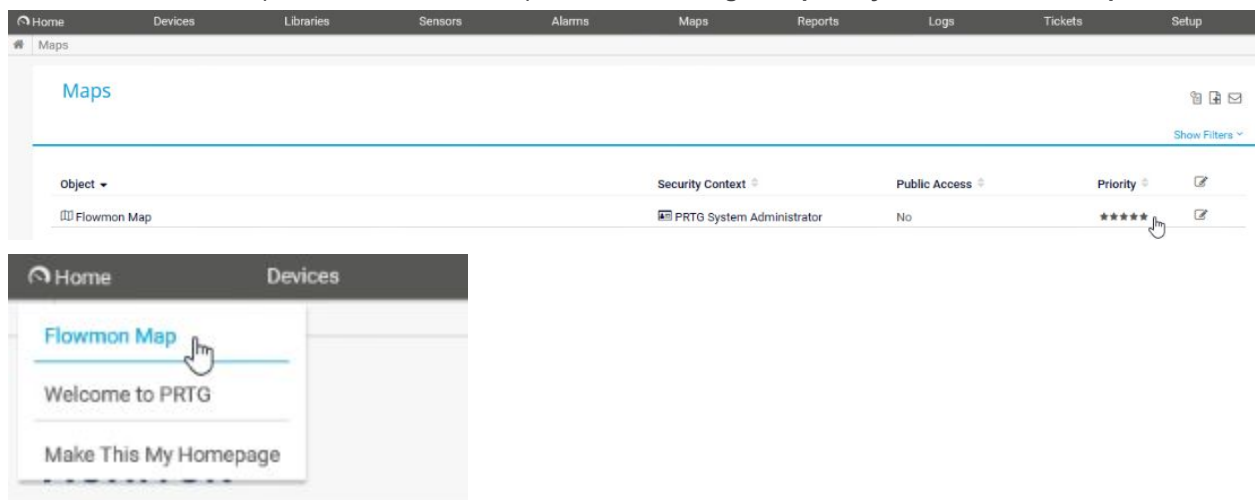
The Map Designer interface is shown with the following components:

- Device Tree (Left):** A hierarchical list of devices and sensors. The 'Flowmon FMC All S' sensor is highlighted with a red box and a red circle labeled '1'.
- Map Canvas (Center):** A large grid area for placing widgets.
- Properties Panel (Right):** A list of available widgets. The 'Live graph (large fonts)' widget is highlighted with a red box and a red circle labeled '2'. A red box with the text 'Drag and drop this object' is overlaid on the widget.

To add the Flowmon logo to the dashboard, drag and drop the logo from *Icon Set 9* in the items list to the right of the main window of the Map Designer.



To add the Flowmon Map to the home menu for quick access, **change the priority of the Flowmon Map to 5 stars.**



For a detailed description on how to work with PRTG Maps, see the manual [here](#).