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Changing from SITOP UPS Manager to SITOP Manager

SITOP UPS1600 / UPS1100

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1 Introduction

The SITOP Manager is a software tool for commissioning, engineering and monitoring existing and future SITOP devices with communications interface in a customer network in online and offline mode.

The SITOP Manager consists of three modular services that can be installed and operated individually:

1. SITOP Manager Service (MGR)
 - Portal for commissioning, engineering and diagnostics of the SITOP UPS1600 and UPS1100.
 - Provides a web-based graphical user interface (GUI).
2. SITOP Shutdown Service (SDS)
 - Monitors and purposely shuts down the PC on which it is installed.
 - Provides a web-based graphical user interface (GUI).
 - This service is required at least to trigger shutdown of the PC after (buffered) power failure.
3. SITOP Gateway Service (GWS):
 - Required for communication with a SITOP UPS1600 with USB interface.
 - This service is installed on the PC that is connected with the SITOP UPS1600 via USB.

Chapters [2](#) and [3](#) describe the following tasks:

- Transfer of the device configuration of the SITOP UPS Manager to the SITOP Manager.
- Utilization of the functions of the SITOP UPS Manager that are also supported by the SITOP Manager.
- Utilization of the new functions in the SITOP Manager.

2 Configuration

2.1 Establish Online Connection

The SITOP Manager scans Industrial Ethernet and PROFINET networks for supported SITOP devices and establishes an online connection to the SITOP devices found in the network.

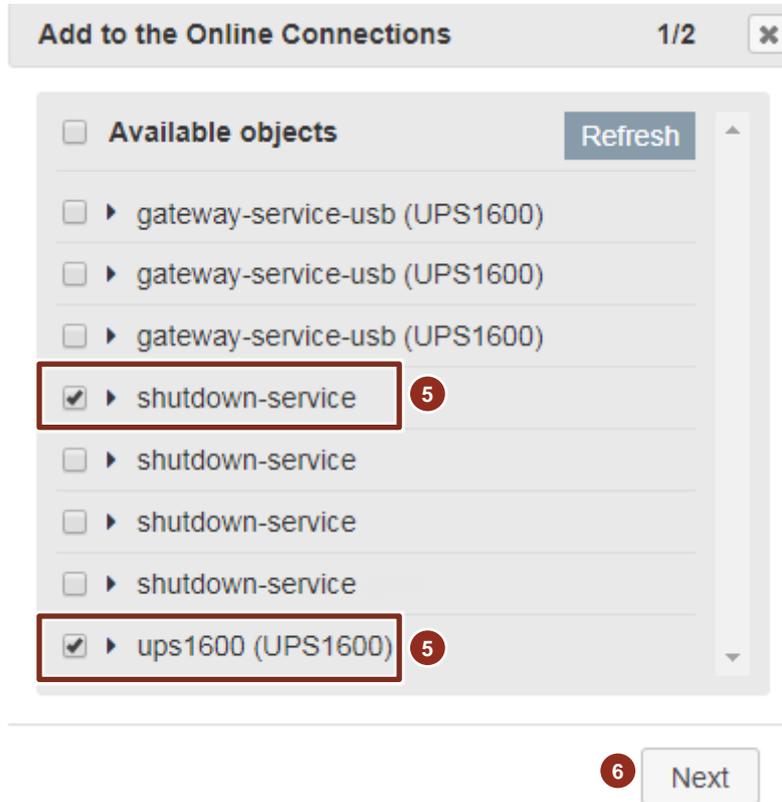
Proceed as follows to scan the network and establish the online connection.

1. In the header you click the "More" button to select the active network adapter.
2. In the footer you click the "Add" icon to add an online connection.



2 Configuration

3. The "Add to the Online Connections 1/2" dialog displays all the SITOP devices with Ethernet/PROFINET interface that are available in the network.
4. If you have installed the Gateway Service, the SITOP devices with USB interface that are also displayed.
5. Select the objects to which an online connection is to be established.
6. Click the "Next" button.



2 Configuration

7. For the online connection to be established you enter the registration data (User and Password) in the "Add to the Online Connections 2/2" dialog. The registration data corresponds to the login data of the web server. User and password are preset as follows:
 - User: admin
 - Password: admin
8. Click the "OK" button. The SITOP Manager attempts to establish an online connection to the selected objects.

The screenshot shows a dialog box titled "Add to the Online Connections 2/2". It contains two expandable sections under "Available objects". The first section is "shutdown-service" and the second is "ups1600 (UPS1600)". Each section has a "User" dropdown menu set to "admin", a "Password" field with masked characters, and an "OPC UA port" field. Red boxes highlight the "User" and "Password" fields in both sections, with a red circle containing the number 7 next to each. At the bottom of the dialog, there are "Back" and "OK" buttons, with a red circle containing the number 8 next to the "OK" button.

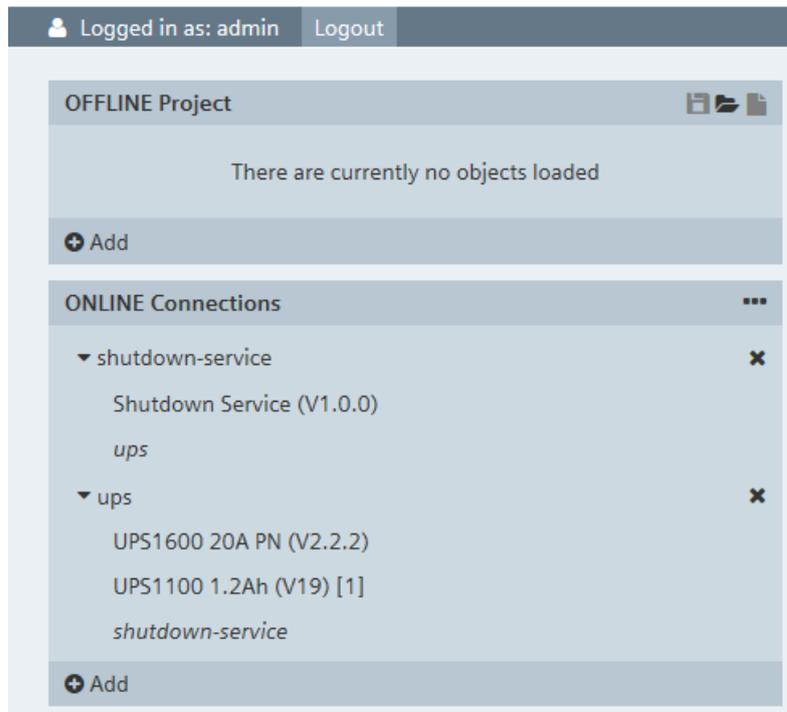
9. The added objects are displayed under "ONLINE Connections".

10. Assign a buffer component to the Shutdown Service. Enable one of the following options:
 - Via SITOP Manager: coordinated by SITOP Manager (recommended).
 - Directly: coordinated by PSU8600/UPS1600 if only the Shutdown Service without SITOP Manager is installed on the PC.

The screenshot displays the configuration interface for the Shutdown Service. At the top, there are three tabs: 'Diagnostics', 'Object configuration' (which is selected and highlighted with an orange border), and 'Commissioning'. Below the tabs, the breadcrumb 'Object configuration » General' is visible. The main section is titled 'General' and is divided into two sections: 'coordinated by SITOP Manager (recommended)' and 'coordinated by PSU8600/UPS1600'. In the first section, the 'via SITOP Manager' radio button is selected. It includes a dropdown menu for 'Assigned buffer component' with 'ups' selected, a text input for 'SITOP Manager user' with 'admin', and a password input for 'SITOP Manager password' with masked characters. In the second section, the 'directly' radio button is unselected. It includes text inputs for 'Assigned buffer component' (0.0.0.0), 'OPC UA port' (4840), 'User name' (admin), and 'Password'.

11. The added online connections are displayed under "ONLINE Connections". When the online connection is established, the connected SITOP devices and the assignment of Shutdown Service and buffer component are displayed.

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2.2 Online Functions

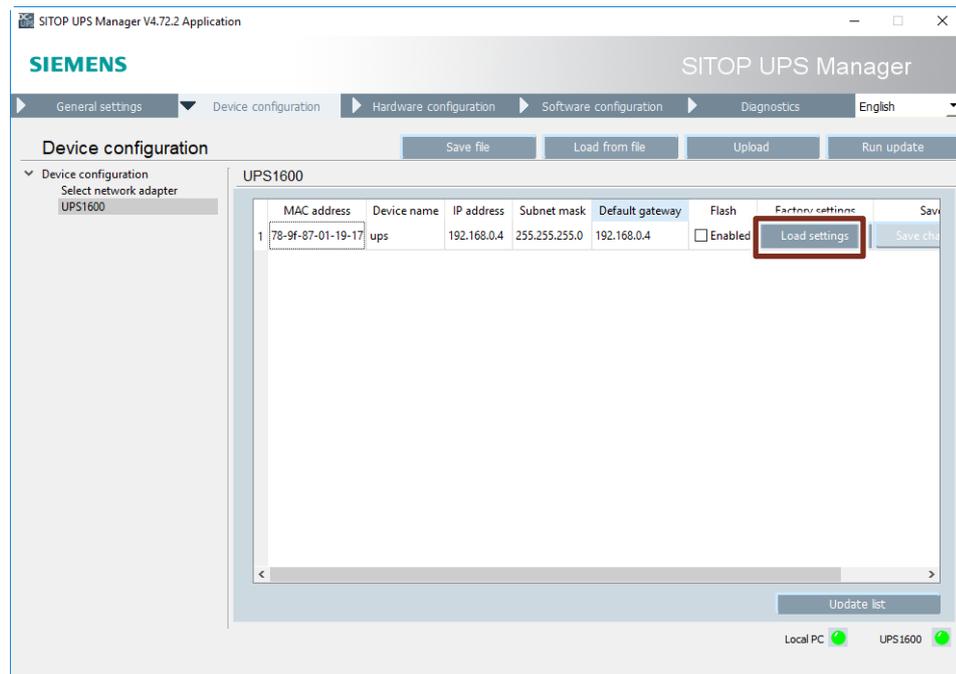
2.2.1 Reset to Factory Settings

In the SITOP UPS Manager the function is in the "Device configuration" tab under "Device configuration > UPS1600".

Click the "Update list" button to have the available UPS1600 displayed.

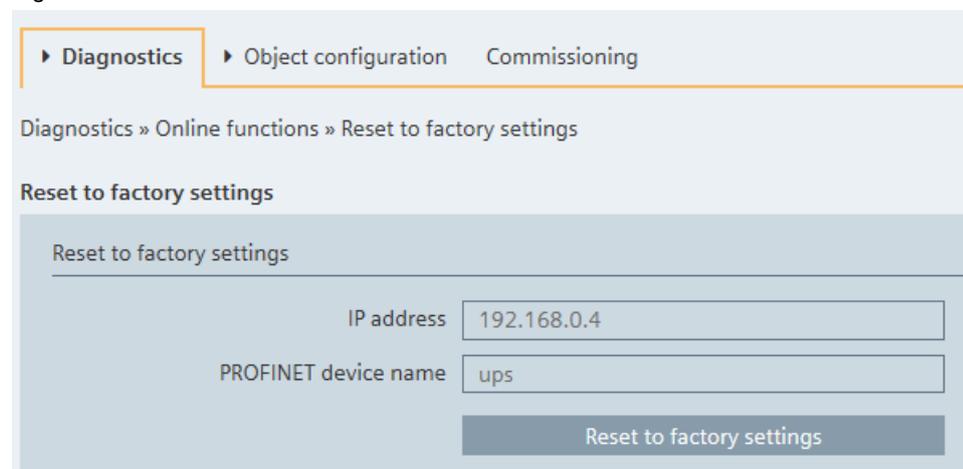
In the "Factory settings" column you click the "Load settings" button to reset the UPS1600 to the factory settings.

Figure 2-1



In the SITOP Manager the function is in the menu "Diagnostics > Online functions > Reset to factory settings".

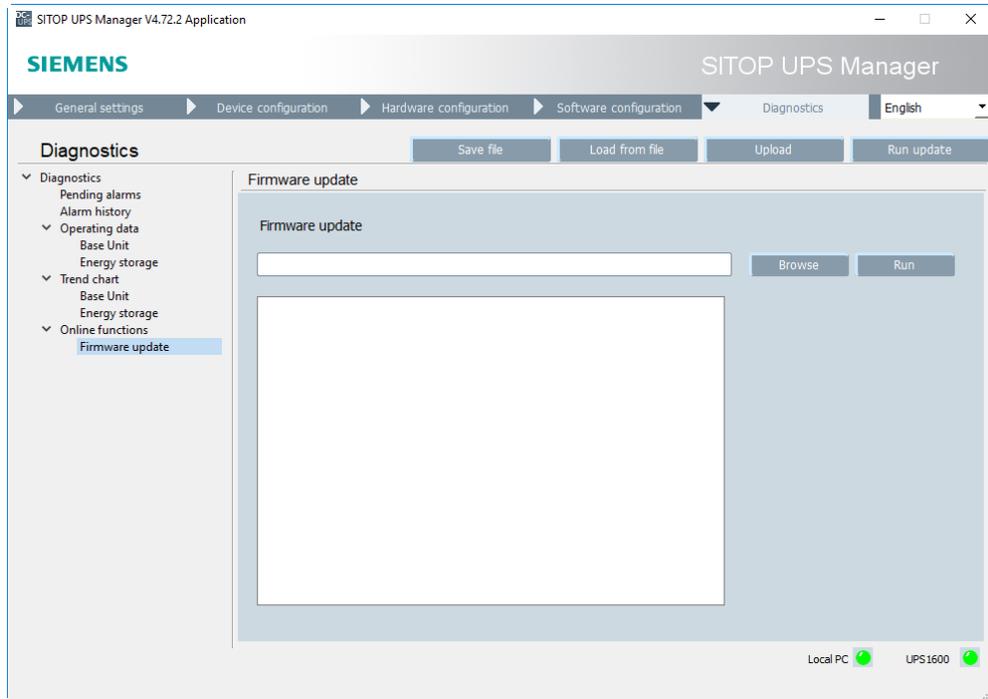
Figure 2-2



2.2.2 Firmware Update

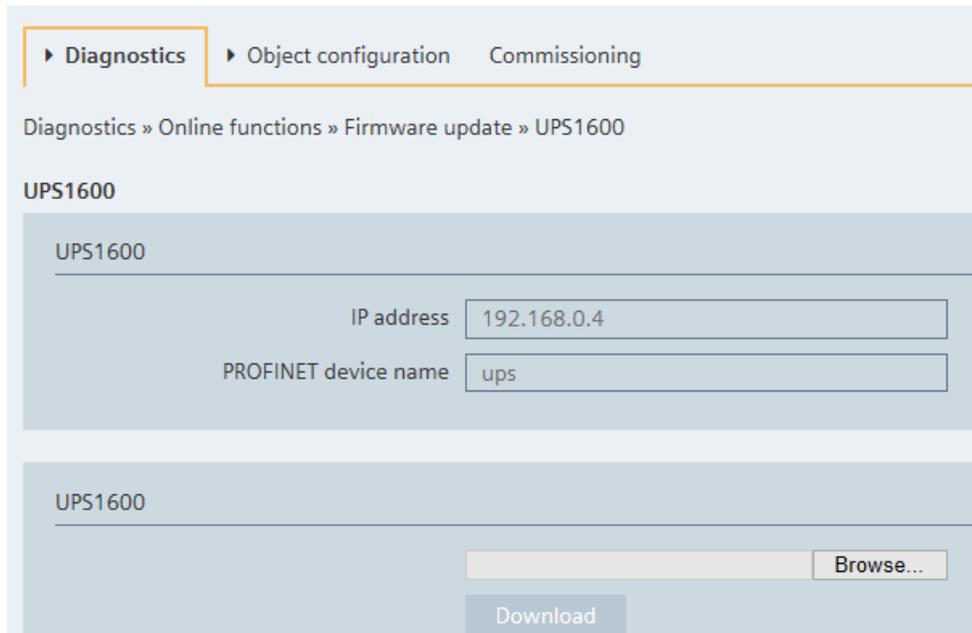
In the SITOP UPS Manager the function is in the "Diagnostics" tab under "Diagnostics > Online functions".

Figure 2-3



In the SITOP Manager the function is in the menu "Diagnostics > Online functions > Firmware update".

Figure 2-4



2.3 Change and Assign Address Parameters of the SITOP Device

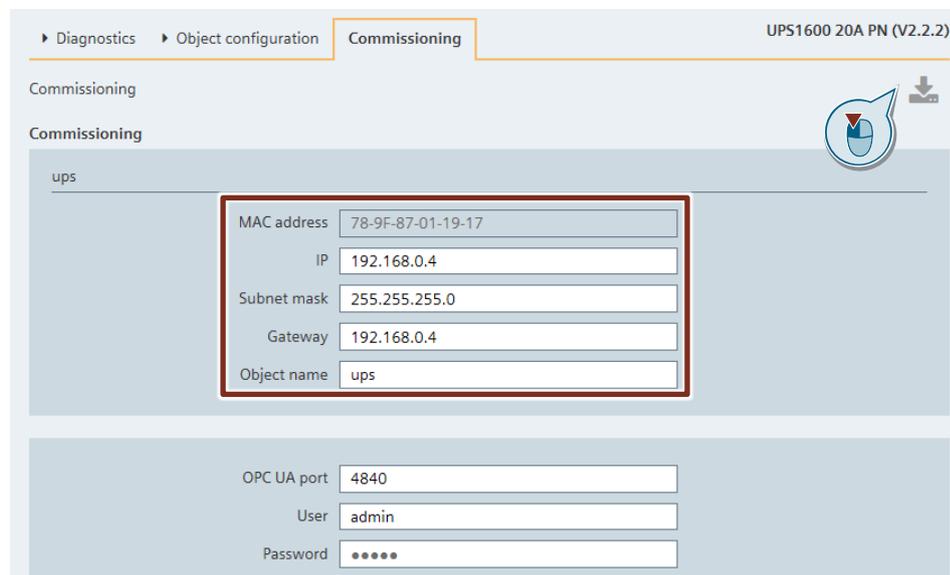
The following address parameters of the SITOP device can be changed during commissioning.

- IP address
- Subnet mask
- Gateway
- Device name

To change the address parameters, you enter the desired address parameters in the "Commissioning" tab.

Click the "Download" icon to load the changed parameters into the SITOP device.

Figure 2-5



The screenshot shows the "Commissioning" tab of the SITOP device configuration interface. The interface is titled "UPS1600 20A PN (V2.2.2)". The "Commissioning" section is active, and the "ups" object is selected. A red box highlights the address parameters: MAC address (78-9F-B7-01-19-17), IP (192.168.0.4), Subnet mask (255.255.255.0), Gateway (192.168.0.4), and Object name (ups). Below this, the OPC UA port is set to 4840, the user is admin, and the password is masked with dots. A "Download" icon is visible in the top right corner of the commissioning section.

If you have changed the registration data, you enter the changed registration data in the "Commissioning" tab.

Click the "Download" icon to load the changed registration data for establishing the online connection into the SITOP device.

Figure 2-6

UPS1600 20A PN (V2.2.2)

Commissioning

ups

MAC address	78-9F-87-01-19-17
IP	192.168.0.4
Subnet mask	255.255.255.0
Gateway	192.168.0.4
Object name	ups

OPC UA port	4840
User	admin
Password	••••

Note The IP address of the Master PC must have been entered in the SITOP UPS Manager. This is not necessary in the SITOP Manager.

2.4 Transfer the Device and Software Configuration from the SITOP UPS Manager to the SITOP Manager

2.4.1 SITOP UPS1600 Device Configuration

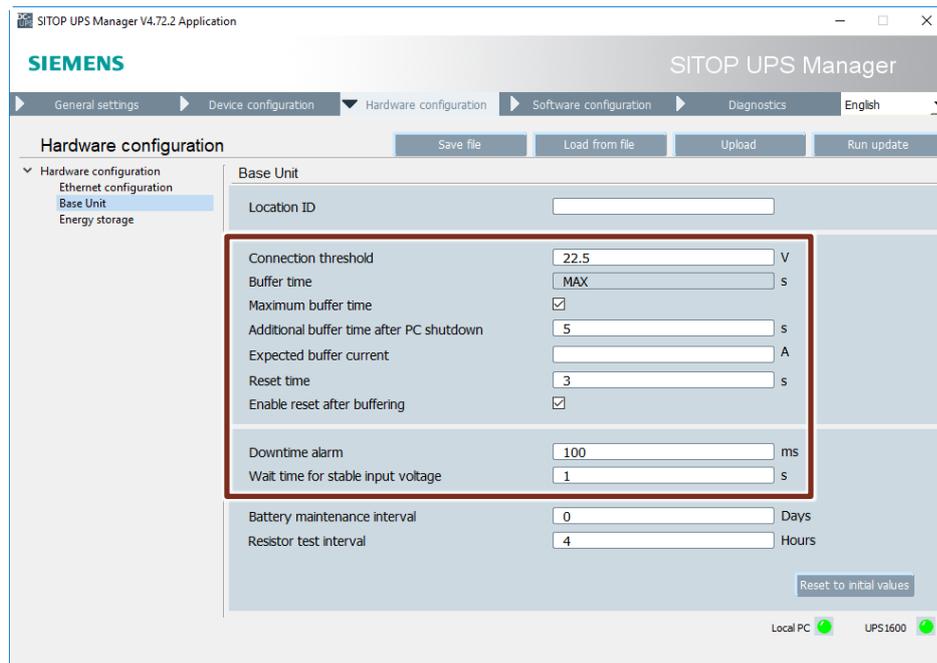
In the SITOP UPS Manager you configure the SITOP UPS1600 in the "Hardware configuration" tab under "Hardware configuration > Base Unit". Note the values of the following parameters:

- Connection threshold
- Buffer time
- Additional buffer time after PC shutdown
- Expected buffer current
- Reset time
- Enable reset after buffering
- Downtime alarm
- Wait time for stable input voltage

The following parameters are no longer necessary in the SITOP Manager:

- Battery maintenance interval
- Resistor test interval

Figure 2-7



1. Enter the values of the above-mentioned parameters in the SITOP Manager in the menu "Object configuration > Device configuration > Base Unit" under Buffering.
2. Enter the new parameters in the SITOP Manager in the menu "Object configuration > Device configuration > Base Unit" under Signaling.
 - Downtime alarm Trigger for the event "Not ready for buffering".
 - Wait time for stable input voltage Trigger for the event "Power return"

Figure 2-8

UPS1600 20A PN (V2.2.2)

Object configuration » Device configuration » Base Unit

Base Unit

UPS1600

Buffering

Connection threshold 22.5 V

Buffer time MAX s

Maximum buffer time

Additional buffer time after PC shutdown 5 s

Expected buffer current 0 A

Reset time 3 s

Enable reset after buffering

Signaling

Downtime alarm 0.1 s

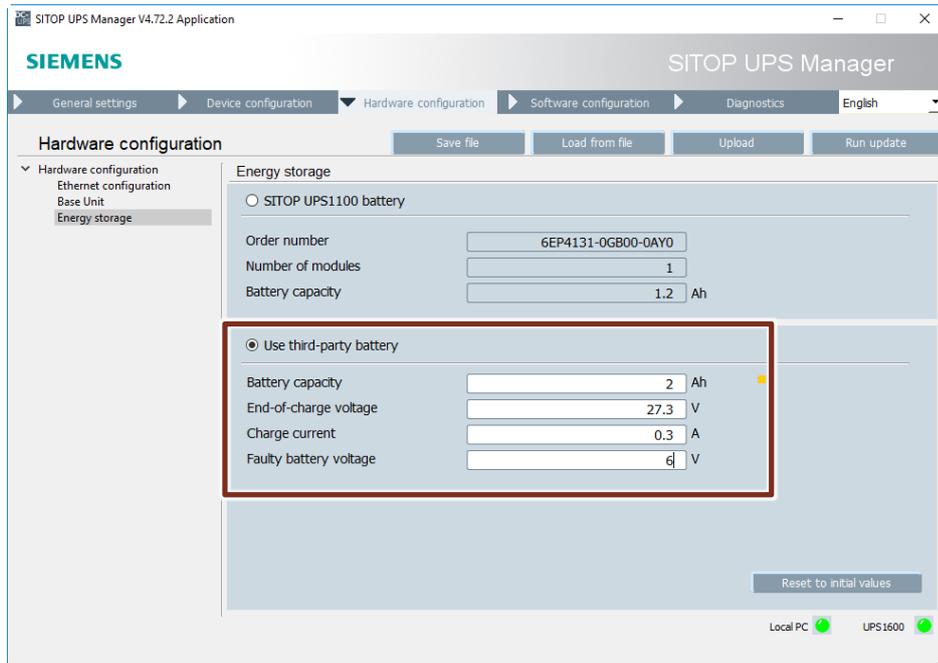
Wait time for stable input voltage 1 s

2.4.2 Configuration of Third-party Batteries

In the SITOP UPS Manager you configure third-party batteries in the "Hardware configuration" tab under "Hardware configuration > Energy storage". Note the values of the following parameters:

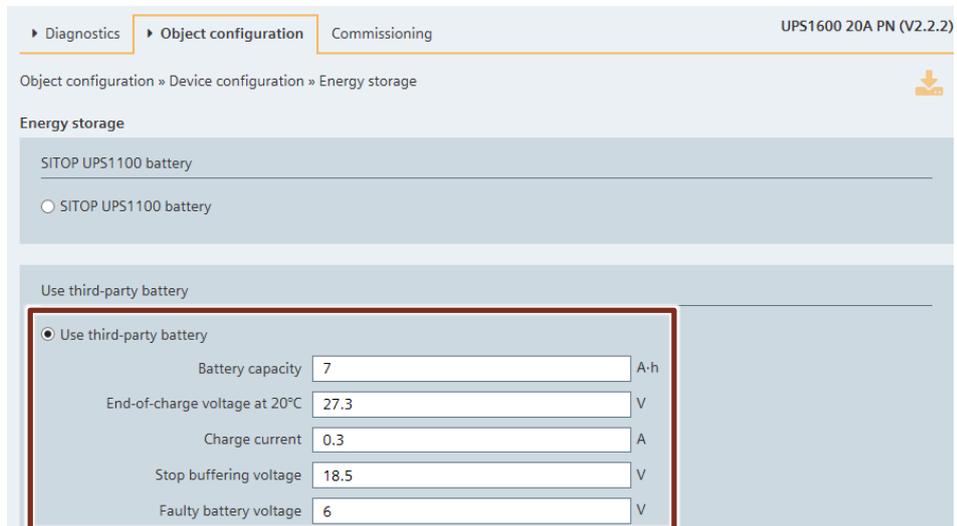
- Battery capacity
- End-of-charge voltage
- Charging current
- Faulty battery voltage

Figure 2-9



Enter the values of the above-mentioned parameters in the SITOP Manager under Buffering in the menu "Object configuration > Device configuration > Energy storage". The "Stop buffering voltage" parameter is new in the SITOP Manager.

Figure 2-10

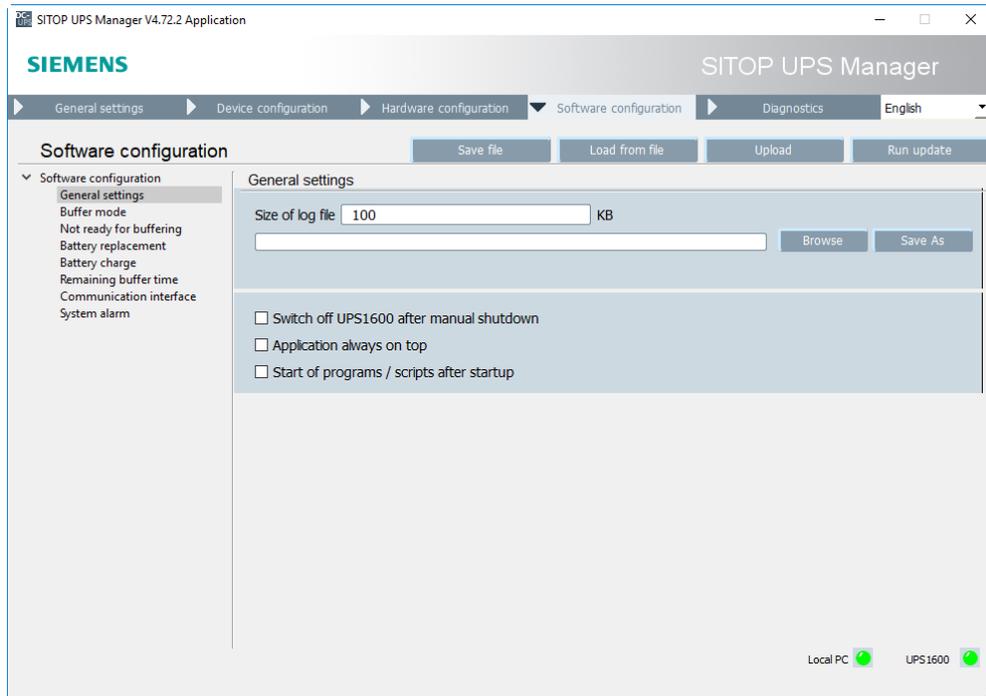


2.4.3 General Software Settings

The following general software settings are no longer in the SITOP Manager:

- Storage location and size of the log file: The data is stored in the UPS1600.
- Switch off UPS1600 after manual shutdown.
- Application is always on top: The user interface supported by the web browser enables the user to configure the desktop so that the SITOP Manager is always on top.
- Start of programs / scripts after startup: The SITOP Manager supports storing of UPS1600, SITOP Manager and Shutdown Service alarms in a CSV file.

Figure 2-11



2.4.4 Configuration of "Buffer Mode"

In the SITOP UPS Manager you can enable and parameterize the following options for the Buffer mode. You do the configuration in the "Software configuration" tab under "Software configuration > Buffer mode".

- Start application on power failure
- Start application on power return
- Show SITOP UPS Manager on power failure
- Show SITOP UPS Manager on power return
- Shut down PC on power failure

In the SITOP Manager you configure the Buffer mode in the menu "Object configuration > Software configuration" of the Shutdown Service.

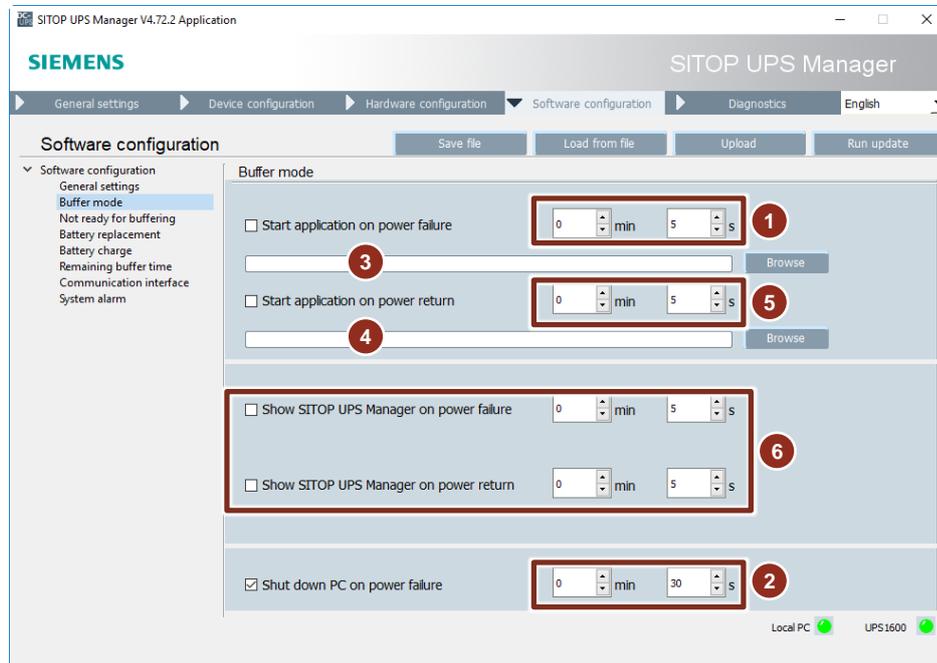
Proceed as follows to configure the Buffer mode:

1. **Dead time: Time after power failure**
The dead time corresponds to the time that you can set for the "Start application on power failure" option in the SITOP UPS Manager. If the power does not return after expiration of the set dead time, shutdown of the PC is prepared.
2. **Wait time and the "Shut down PC on power failure" option:**
Time after expiration of the dead time. The wait time corresponds to the time that you can set for the "Shut down PC on power failure" option in the SITOP UPS Manager. If the "Shut down PC on power failure" option is enabled, shutdown of the PC is prepared. After expiration of the wait time, shutdown of the PC is started.
3. **Power failure: Select the application that is to be started on power failure.**
4. **Power return: Select the application that is to be started on power return.**
5. The time for starting the application after power return is integrated in the new parameter "Wait time for stable input voltage" (see section [2.4.1](#)).
6. The options "Show SITOP UPS Manager on power failure" and "Show SITOP UPS Manager on power return" are replaced in SITOP Manager by tray icons in the taskbar.

2 Configuration

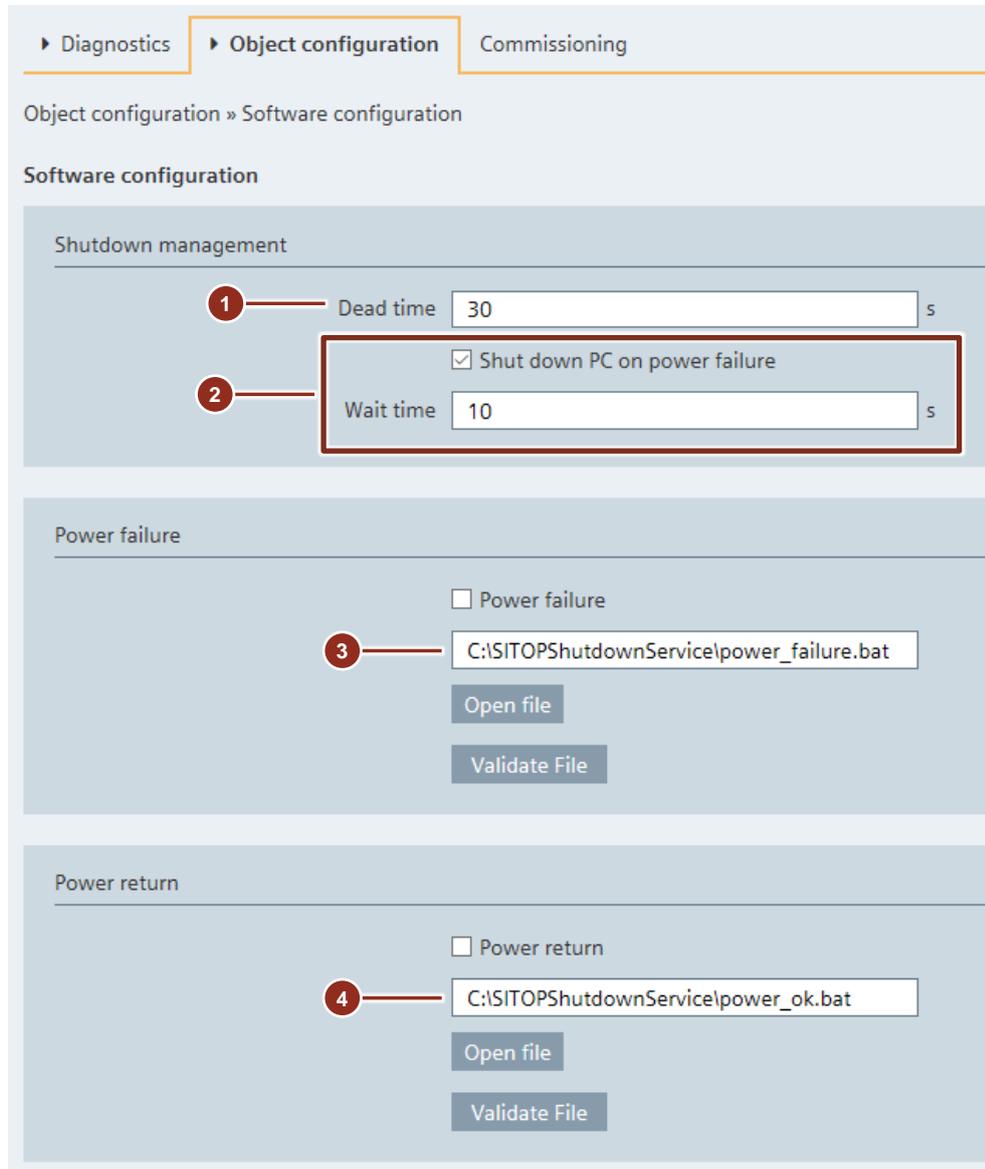
The following figure shows the configuration of the Buffer mode in the SITOP UPS Manager.

Figure 2-12



The following figure shows the configuration of the Buffer mode in the SITOP Manager.

Figure 2-13



2.4.5 Configuration of "Not Ready for Buffering"

In the SITOP UPS Manager you can enable and parameterize the following options for "Not ready for buffering". You do the configuration in the "Software configuration" tab under "Software configuration > Not ready for buffering".

- Start application if buffer mode is not possible.
- Start application if buffer mode is available again.
- Open SITOP UPS Manager if buffer mode is not possible.
- Open SITOP UPS Manager if buffer mode is available again.

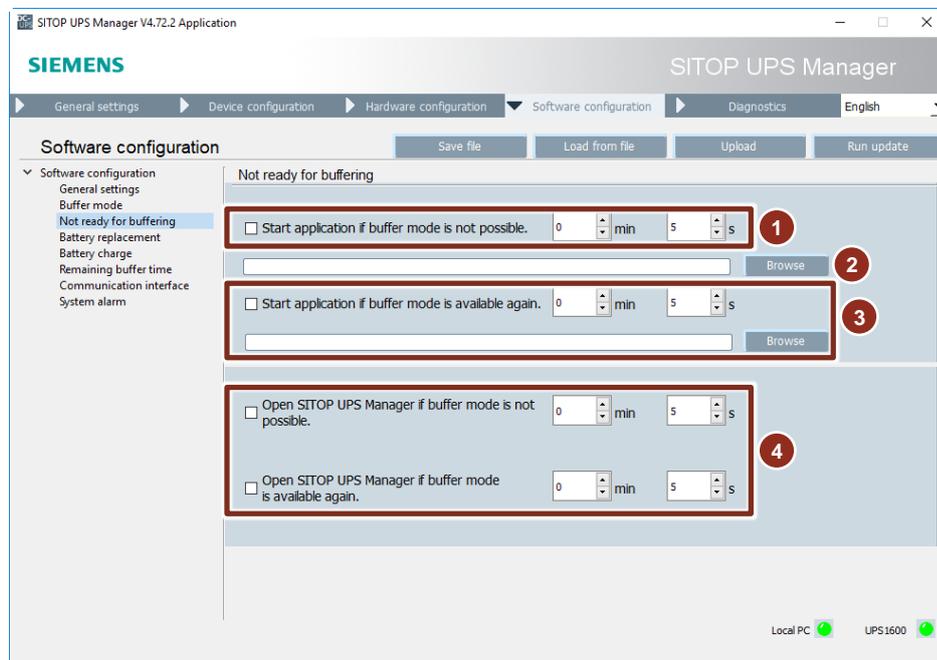
In the SITOP Manager you configure "Not ready for buffering" in the menu "Object configuration > Software configuration" of the Shutdown Service.

Proceed as follows to configure "Not ready for buffering":

1. The time for starting the application in the case of "Not ready for buffering" is integrated in the new parameter "Downtime alarm" (see section [2.4.1](#)).
2. Buffer mode or shutdown not possible: Select the application that is to be started in the case of "Not ready for buffering".
3. The option "Start application if buffer mode is available again" is no longer necessary in the SITOP Manager.
4. The options "Open SITOP UPS Manager if buffer mode is not possible" and "Open SITOP UPS Manager if buffer mode is available again" are replaced in SITOP Manager by tray icons in the taskbar.

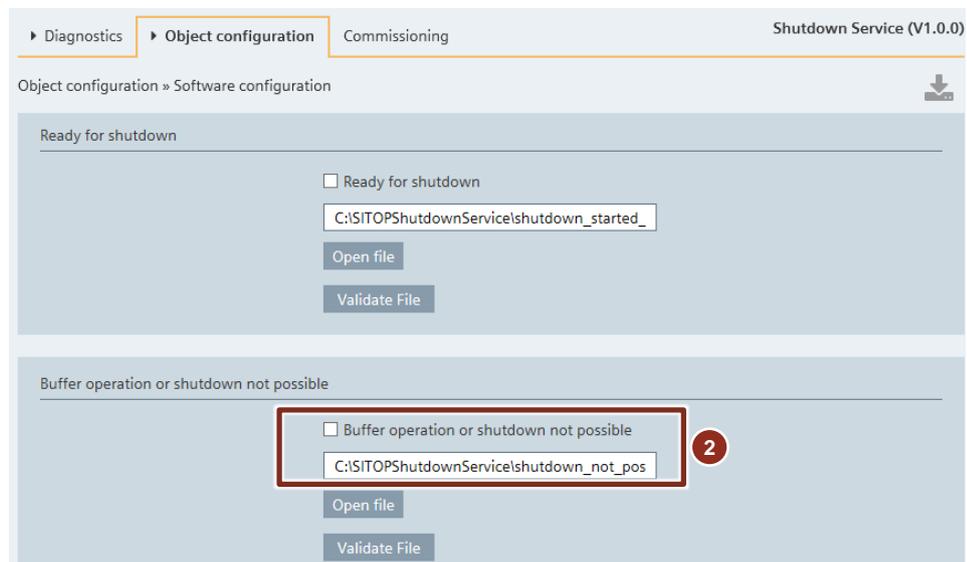
The following figure shows the configuration of "Not ready for buffering" in the SITOP UPS Manager.

Figure 2-14



The following figure shows the configuration of "Not ready for buffering" in the SITOP Manager.

Figure 2-15



2.4.6 Configuration of "Battery Replacement"

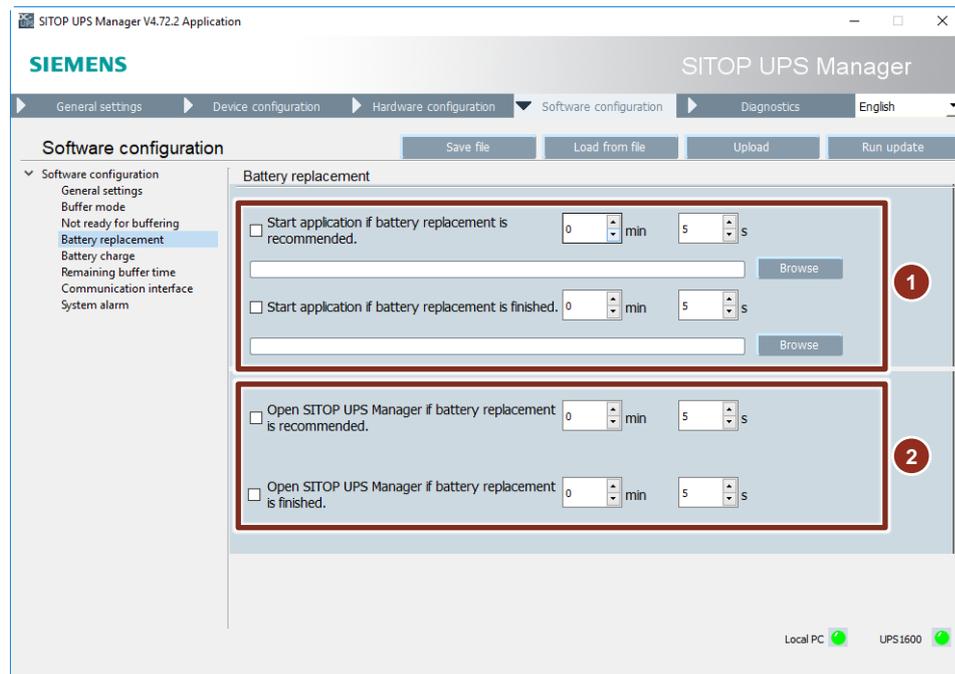
In the SITOP UPS Manager you can enable and parameterize the following options for "Battery replacement". You do the configuration in the "Software configuration" tab under "Software configuration > Battery replacement".

- Start application if battery replacement is recommended.
- Start application if battery replacement is finished.
- Open SITOP UPS Manager if battery replacement is recommended.
- Open SITOP UPS Manager if battery replacement is finished.

Configuration of "Battery replacement" is no longer necessary in the SITOP Manager.

1. The options "Start application if battery replacement is recommended" and "Start application if battery replacement is finished" are no longer necessary in the SITOP Manager.
2. The options "Open SITOP UPS Manager if battery replacement is recommended" and "Open SITOP UPS Manager if battery replacement is finished" are replaced in SITOP Manager by tray icons in the taskbar.

Figure 2-16



2.4.7 Configuration of "Battery Charge"

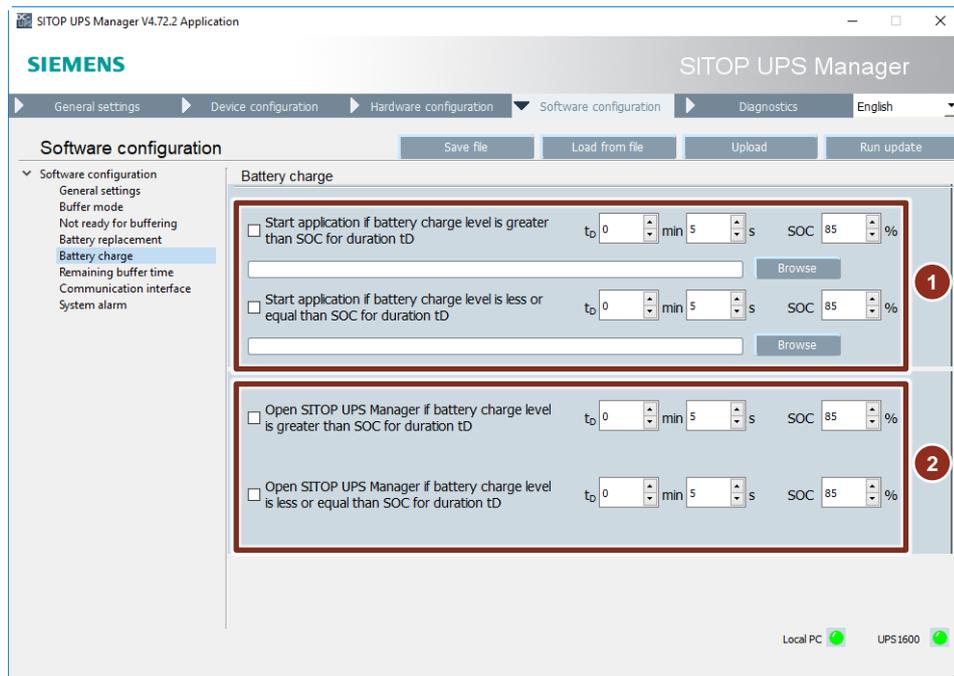
In the SITOP UPS Manager you can enable and parameterize the following options for "Battery charge". You do the configuration in the "Software configuration" tab under "Software configuration > Battery charge".

- Start application if battery charge level is greater than SOC for duration tD.
- Start application if battery charge level is equal to or less than SOC for duration tD.
- Open SITOP UPS Manager if battery charge level is greater than SOC for duration tD.
- Open SITOP UPS Manager if battery charge level is equal to or less than SOC for duration tD.

Configuration of "Battery charge" is no longer necessary in the SITOP Manager.

1. The options "Start application if battery charge level is greater than SOC for duration tD" and "Start application if battery charge level is equal to or less than SOC for duration tD" are no longer necessary in the SITOP Manager.
2. The options "Open SITOP UPS Manager if battery charge level is greater than SOC for duration tD" and "Open SITOP UPS Manager if battery charge level is equal to or less than SOC for duration tD" are replaced in SITOP Manager by tray icons in the taskbar.

Figure 2-17



2.4.8 Configuration of "Remaining Buffer Time"

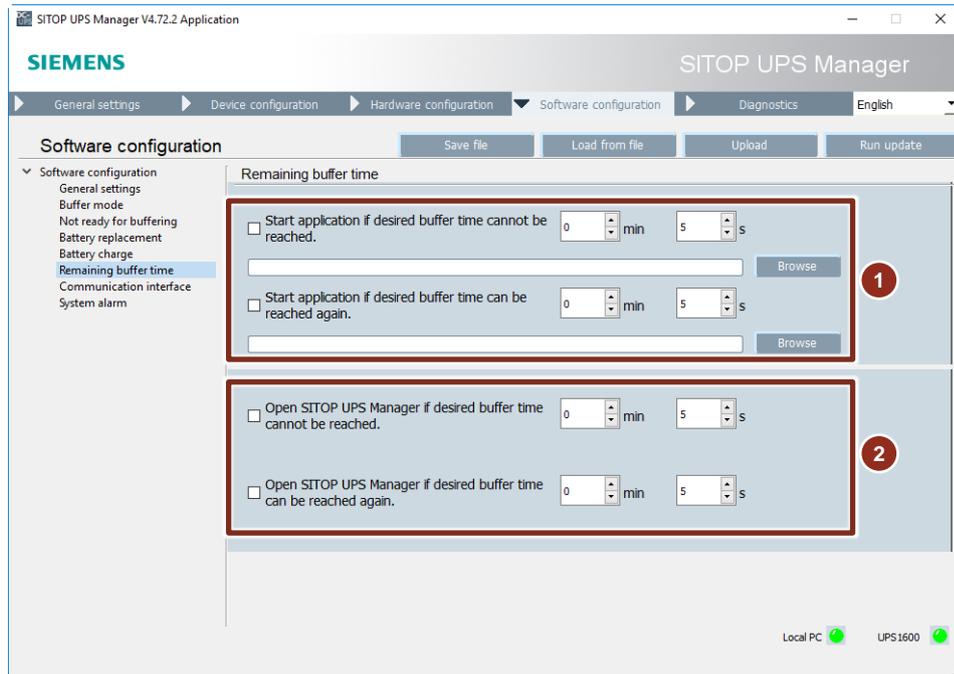
In the SITOP UPS Manager you can enable and parameterize the following options for "Remaining buffer time". You do the configuration in the "Software configuration" tab under "Software configuration > Remaining buffer time".

- Start application if desired buffer time cannot be reached.
- Start application if desired buffer time can be reached again.
- Open SITOP UPS Manager if desired buffer time cannot be reached.
- Open SITOP UPS Manager if desired buffer time can be reached again.

Configuration of "Remaining buffer time" is no longer necessary in the SITOP Manager.

1. The options "Start application if desired buffer time cannot be reached" and "Start application if desired buffer time can be reached again" are no longer necessary in the SITOP Manager.
2. The options "Open SITOP UPS Manager if desired buffer time cannot be reached" and "Open SITOP UPS Manager if desired buffer time can be reached again" are replaced in SITOP Manager by tray icons in the taskbar.

Figure 2-18



2.4.9 Configuration of "Communication Interface"

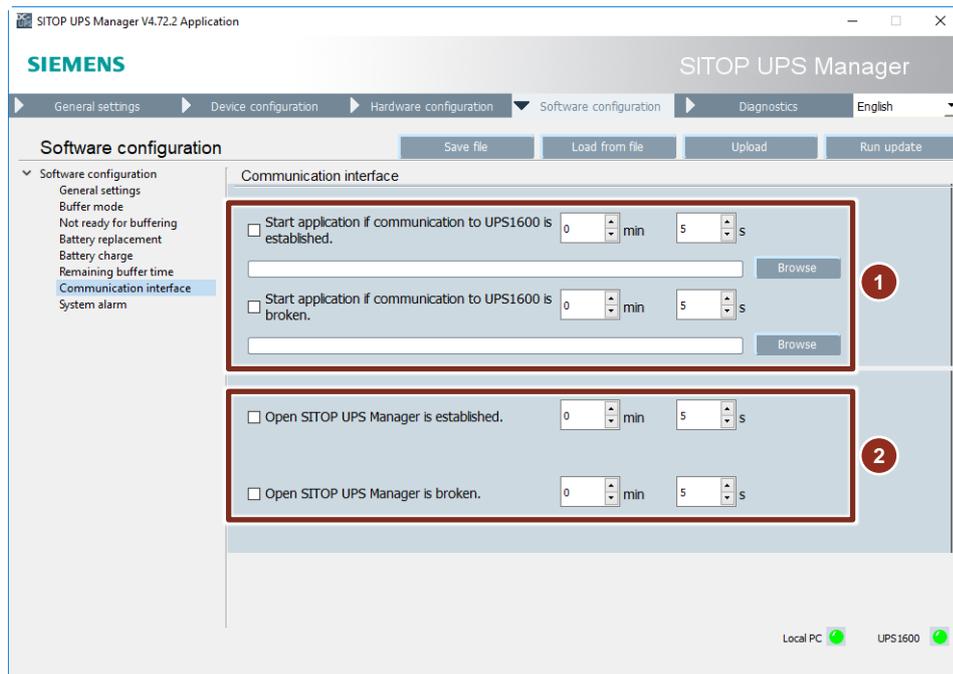
In the SITOP UPS Manager you can enable and parameterize the following options for "Communication interface". You do the configuration in the "Software configuration" tab under "Software configuration > Communication interface".

- Start application if communication to UPS1600 is established.
- Start application if communication to UPS1600 is broken.
- Open SITOP UPS Manager if communication to UPS1600 is established.
- Open SITOP UPS Manager if communication to UPS1600 is broken.

Configuration of "Battery charge" is no longer necessary in the SITOP Manager.

1. The options "Start application if communication to UPS1600 is established" and "Start application if communication to UPS1600 is broken" are no longer necessary in the SITOP Manager.
2. The options "Open SITOP UPS Manager if communication to UPS1600 is established" and "Open SITOP UPS Manager if communication to UPS1600 is broken" are replaced in SITOP Manager by tray icons in the taskbar.

Figure 2-19



2.4.10 Configuration of "System Alarm"

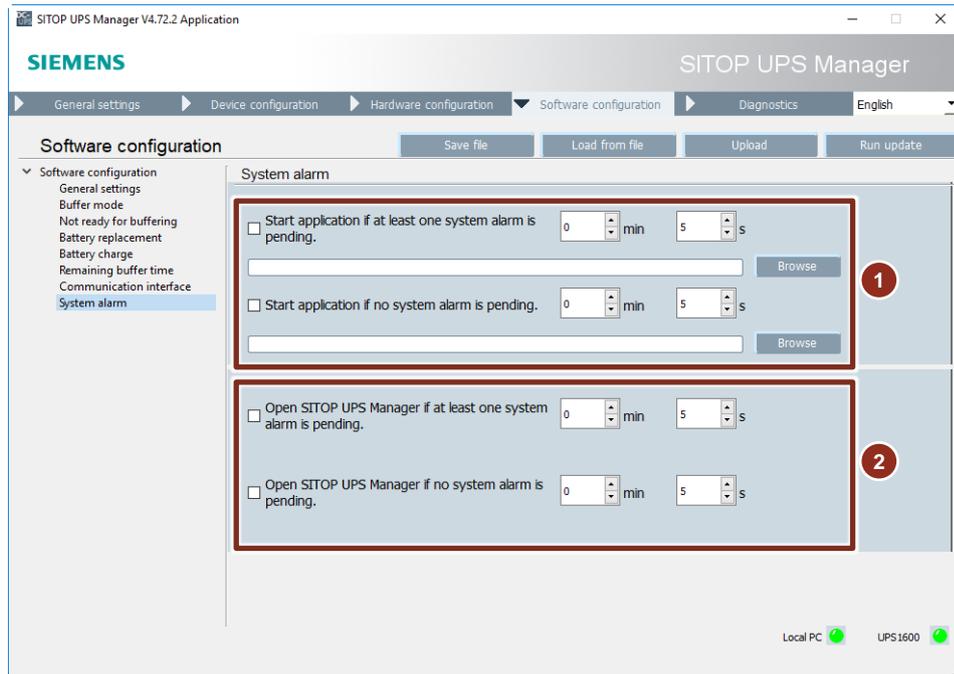
In the SITOP UPS Manager you can enable and parameterize the following options for "System alarm". You do the configuration in the "Software configuration" tab under "Software configuration > System alarm".

- Start application if at least one system alarm is pending.
- Start application if no system alarm is pending.
- Open SITOP UPS Manager if at least one system alarm is pending.
- Open SITOP UPS Manager if no system alarm is pending.

Configuration of "System alarm" is no longer necessary in the SITOP Manager.

1. The options "Start application if at least one system alarm is pending" and "Start application if no system alarm is pending" are no longer necessary in the SITOP Manager.
2. The options "Open SITOP UPS Manager if at least one system alarm is pending" and "Open SITOP UPS Manager if no system alarm is pending" are replaced in SITOP Manager by tray icons in the taskbar.

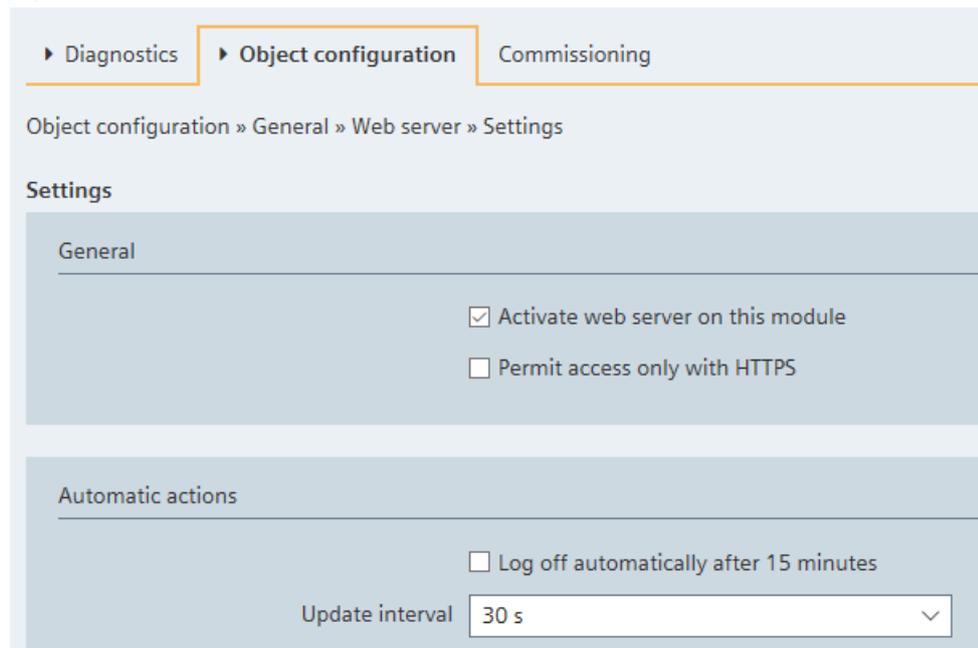
Figure 2-20



2.5 Configure Settings for the Web Server

In the SITOP Manager you can configure the settings for the web server of the SITOP device, UPS1600, for example, in the menu "Object configuration > General > Web server > Settings". This function was not available in the SITOP UPS Manager.

Figure 2-21



2.6 Configure Settings for the OPC UA Server

In the SITOP Manager you can configure the settings for the OPC UA server of the SITOP device, UPS1600, for example, in the menu "Object configuration > General > OPC UA server > Settings". This function was not available in the SITOP UPS Manager.

Figure 2-22

The screenshot shows the configuration interface for the OPC UA server. At the top, there are three tabs: "Diagnostics", "Object configuration" (which is selected and highlighted with an orange border), and "Commissioning". Below the tabs, the breadcrumb navigation reads "Object configuration » General » OPC UA server » Settings". The main content area is titled "Settings" and is divided into two sections: "General" and "NTP client".

General

- OPC UA server activated
- Unencrypted access activated
- OPC UA port:

NTP client

- NTP client activated
- NTP server address 1:
- NTP server address 2:
- NTP server address 3:
- NTP server address 4:

3 Diagnostics

The following alarms are displayed in the SITOP Manager:

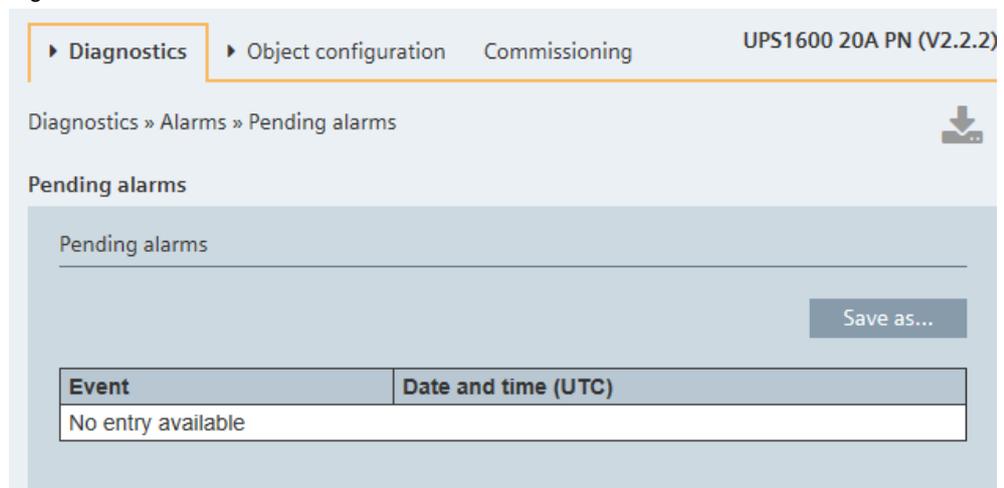
- Alarms of the SITOP device, UPS1600, for example
 - Pending alarms
 - Alarm history
- SITOP Manager alarms
- Alarms of the Shutdown Service

3.1 Alarms of the SITOP device

Pending alarms

In the SITOP Manager you can access the list of pending alarms via the menu "Diagnostics > Alarms > Pending alarms". You can save the pending alarms in a CSV file as required.

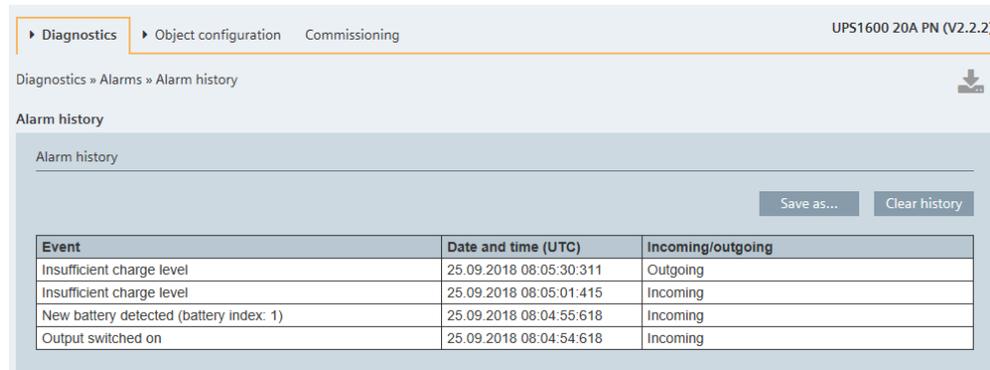
Figure 3-1



Alarm history

In the SITOP Manager you can access the alarm history list via the menu "Diagnostics > Alarms > Alarm history". You can save the alarm history in a CSV file or delete it as required.

Figure 3-2

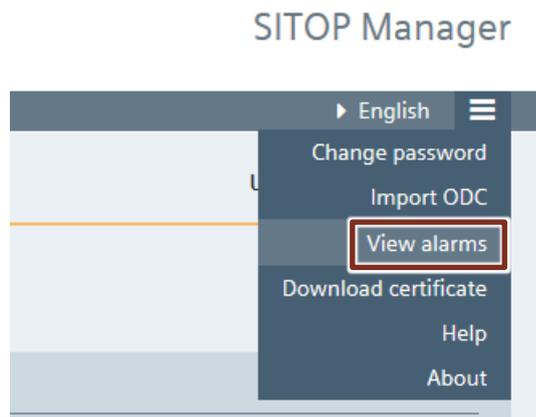


3.2 SITOP Manager Alarms

To access the alarm list of the SITOP Manager you use the "Display alarms" function from the menu icon in the header.

There are 13 SITOP Manager alarms. You can save the SITOP Manager alarms in a CSV file or delete them as required.

Figure 3-3



The following figure shows the SITOP Manager alarms.

Figure 3-4

ID	Event	Incoming/outgoing	Severity	Origin	Date and time (UTC)
2	Data transfer in progress	Outgoing	0	opc.tcp://192.168.0.4:4840	25.09.2018 08:07:40:861
4	Device locked	Incoming	0	opc.tcp://192.168.0.4:4840	25.09.2018 08:07:40:856
2	Data transfer in progress	Incoming	0	opc.tcp://192.168.0.4:4840	25.09.2018 08:07:35:264
3	Device connected	Incoming	0	opc.tcp://192.168.0.4:4840	25.09.2018 08:07:35:259
2	Data transfer in progress	Outgoing	0	opc.tcp://192.168.0.111:4842	25.09.2018 08:06:17:666
4	Device locked	Incoming	0	opc.tcp://192.168.0.111:4842	25.09.2018 08:06:17:536
2	Data transfer in progress	Incoming	0	opc.tcp://192.168.0.111:4842	25.09.2018 08:06:16:841
3	Device connected	Incoming	0	opc.tcp://192.168.0.111:4842	25.09.2018 08:06:16:836
1	Service running	Incoming	0	Manager	25.09.2018 08:06:03:126
1	Service running	Outgoing	0	Manager	24.09.2018 12:46:06:054
2	Data transfer in progress	Outgoing	0	opc.tcp://192.168.0.4:4840	24.09.2018 12:28:16:349
4	Device locked	Incoming	0	opc.tcp://192.168.0.4:4840	24.09.2018 12:28:16:342
2	Data transfer in progress	Incoming	0	opc.tcp://192.168.0.4:4840	24.09.2018 12:28:10:568
3	Device connected	Incoming	0	opc.tcp://192.168.0.4:4840	24.09.2018 12:28:10:562
2	Data transfer in progress	Outgoing	0	opc.tcp://192.168.0.111:4842	24.09.2018 12:26:52:793
4	Device locked	Incoming	0	opc.tcp://192.168.0.111:4842	24.09.2018 12:26:52:786
2	Data transfer in progress	Incoming	0	opc.tcp://192.168.0.111:4842	24.09.2018 12:26:52:199

3.3 Alarms of the Shutdown Service

In the SITOP Manager you can access the list of Shutdown Service alarms via the menus "Diagnostics > Alarms > Pending alarms" and "Diagnostics > Alarms > Alarm history".

There are 8 Shutdown Service alarms. You can save the pending alarms and alarm history of the Shutdown Service in a CSV file as required.

Figure 3-5

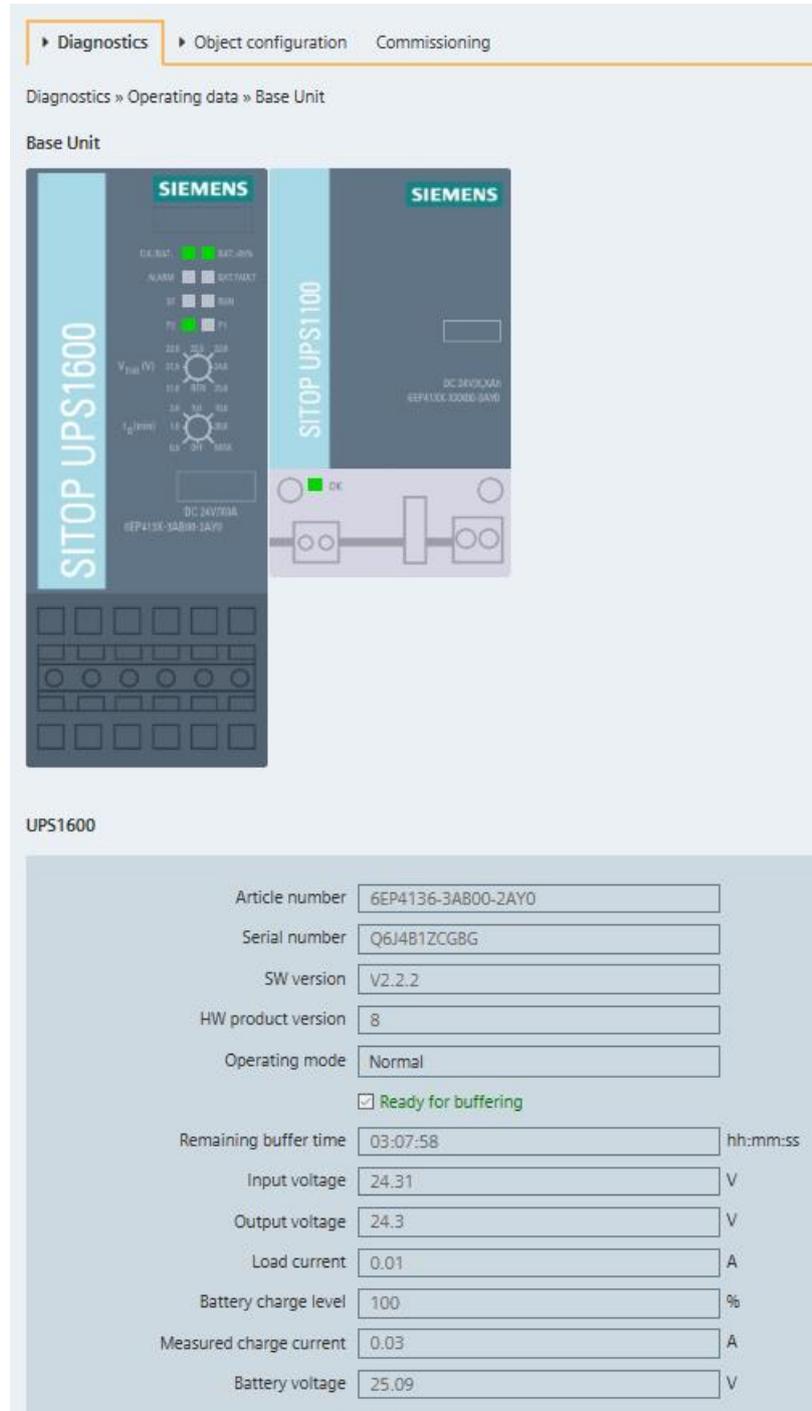
ID	Event	Severity	Origin	Date and time (UTC)	Details on event
1	Service running	0	Service	25.09.2018 08:29:49:854	Service running
3	Buffer component connected via SITOP Manager	0	opc.tcp://192.168.0.4:4840 (DESKTOP-VJM3U4V)	25.09.2018 08:30:31:994	Buffer component connected via SITOP Manager

3.4 Operating Data

In the SITOP Manager you open the display of the operating data in the menu "Diagnostics > Operating data > Base Unit".

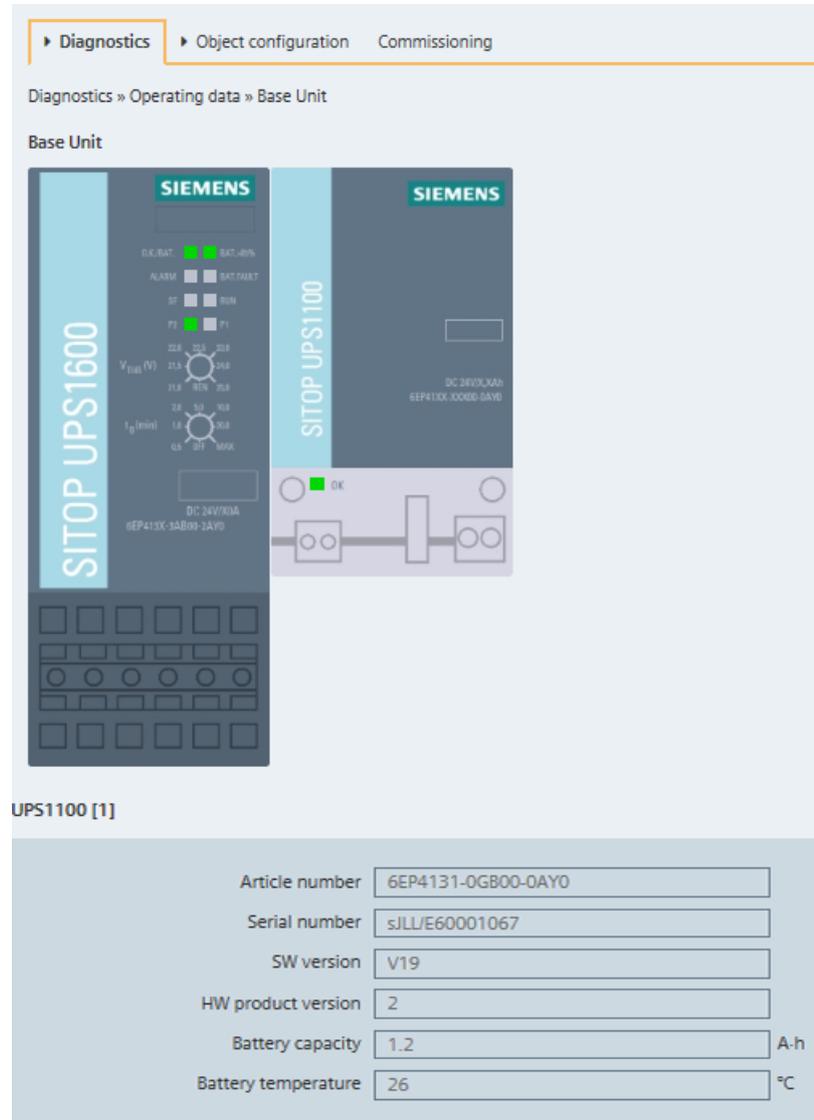
The following figure shows the operating data of the SITOP UPS1600.

Figure 3-6



The following figure shows the operating data of the connected battery module SITOP UPS1600.

Figure 3-7



3.5 Trend Diagrams

The trend diagrams for graphical display of the following parameters have not been integrated in the SITOP Manager.

- Load current
- Current input voltage
- Remaining buffer time
- Charging current
- Battery charge
- Battery temperature