SAUTER

SAUTER EY-modulo 5
moduWeb Vision V1.9 web operation

Manual
7010083003

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# 1. Preface

## 1.1 What is moduWeb Vision?

moduWeb Vision is a web application that enables you to simply and intuitively monitor and operate your building management system from any PC or touch device in the network using a web browser.
moduWeb Vision uses HTML 5 for this, which makes it possible to operate moduWeb Vision independently of the platform.
The logical plant structure is displayed in the plant navigation tree. You can use this plant navigation tree to gain quick access to a particular part of the plant. The plant can be operated and represented graphically in the form of dynamic images, or as a list.
moduWeb Vision collects the log data from the connected devices and displays it in diagrams and tables.
With moduWeb Vision you can easily operate the BACnet schedules of the connected automation stations from one place.
Access to the individual plants and equipment systems can be controlled via the user administration.
To communicate with the automation stations, moduWeb Vision uses the standard BACnet/IP protocol, which means that the automation stations from SAUTER can be combined in a single system with those of other manufacturers.
moduWeb Vision is a pure software product that is installed and licensed on the moduWeb500 hardware when this is put into service.
moduWeb Vision is usually configured and commissioned by SAUTER or a SAUTER system partner and then handed over to the client ready to operate.

# 2. About this manual

## 2.1 Purpose and intended readership

This manual is intended for people who use moduWeb Vision to monitor and operate building management systems.

To understand the manual, a certain degree of knowledge of building technology, HVAC, control and IT systems is required.

The manual should be kept in a place where it is available at all times for reference.

## 2.2 How the manual is structured

It is assumed that the building management system has been installed and commissioned by specialists from SAUTER.
Therefore, important information for monitoring and operating the building management system is at the beginning of the manual. Information on configuration, commissioning and engineering is at the end of the manual.

## 2.3 Abbreviations

| Abbreviation | Term |
|---|---|
| AS | Automation station |
| ASHRAE | American Society of Heating, Refrigerating and Air Conditioning Engineers |
| BACnet | Building automation and control network |
| CASE | Computer-aided SAUTER engineering |
| COV | Change of values |
| CSV | Comma-separated values, a data format for exchanging data with a simple structure |
| DBE | Direct operating/indicating unit |
| DHCP | Dynamic host configuration protocol |
| DNS | Domain name server |
| DOI | Device object identifier |
| FTC | Facility touch client |
| BA | Building automation |
| HTML | Hypertext markup language |
| http | Hypertext transfer protocol |
| https | Hypertext transfer protocol secure |
| LAN | Local area network |
| MAC | Media access control address |
| MCR | Measurement, control and regulation |
| NTP | Network time protocol |
| SMS | Short message service |
| SSL | Secure sockets layer |
| SVO | Structured view object (BACnet) |
| TCM | Touch configuration management |
| UMS | Unified messaging service |

| Abbreviation | Term |
|---|---|
| URL | Uniform resource locator |
| UTC | Coordinated universal time |

## 2.4 Symbols and terms used in this manual

This symbol warns of hazards that may arise as a result of incorrect or careless operation of the system.

This symbol refers to additional information that may be helpful to the user.

## 2.5 Illustrations in this manual

The illustrations in this manual show the windows of the application as they appear on a PC in the browser of Internet Explorer 11 or higher. They merely serve as examples. See also section 6.1.

The availability of the functions (menus) and the amount of content displayed depend on the role assigned to the user.

## 2.6 Software version

This manual describes the following software version:

| Software package | Version |
|---|---|
| EY-WS505F010 | 1.9.*.b*** |
| EY-WS505F020 | 1.9.*.b*** |

The engineering of all of the options described in the manual requires at least the following CASE Suite version:

| Version | Vision index |
|---|---|
| CASE Suite V3.10 | 8 |

# 3. Safety instructions

## 3.1 Notes on installation

These instructions refer to the installation of the moduWeb500 web server from the EY-modulo series of devices, as well as any other devices that are required in the building management system.

Danger due to incorrect installation
Incorrect installation can lead to injuries, fire or damage to equipment.
Observe the fitting instructions EY-WS5000 P10006978 A.

Danger due to electric current
Devices carrying lethal voltage could be installed in the environment of the moduWeb500 web server. Work on these devices may only be carried out by qualified electricians.

The SAUTER EY-modulo devices may only be installed by qualified personnel in accordance with the following instructions.

All international, national, regional and local safety and accident prevention regulations must be observed at all times.

The products must be installed in such a way that they can be safely used and operated by laypersons. When necessary, the devices must be installed in lockable cabinets or switch boxes.

The equipment must be installed in such a way that it can never under any circumstances pose a hazard to people, animals or the environment. The systems may only be put into operation after it has been ensured that the plant can be operated safely and in accordance with all relevant standards and directives.

Communication wiring must be carried out correctly and in accordance with the standards EN 50174-1, -2 and -3. Communication wires must be kept at a distance from other live wires.

The network may only be configured by trained, qualified staff in consultation with the IT department responsible, as otherwise the entire local network may be impaired.

## 3.2 Intended use

moduWeb Vision may only be used for the functions described in this manual.

Any improper use can cause malfunctions or damage to the building management system.

Improper operation can cause the recorded data or the entire program of moduWeb Vision to be irretrievably lost.

Unauthorised hardware and software modifications are considered to be violations of the intended use.

## 3.3 Disclaimer

Fr. Sauter AG accepts no liability for any damage caused by improper use of moduWeb Vision. This applies to damage to moduWeb Vision and the associated hardware and software, to building management systems and also to any consequential damage.

## 3.4 Standards and directives

In terms of electrical safety, the EY-modulo devices comply with the requirements of the EN 60730, EN 60950 series of equipment standards. It must be ensured that the system itself complies with the standards EN 50178, EN 50310, EN 50110, EN 50274, EN 61140, EN 61558-x etc.

ⓘ The products in the EY-modulo series are not “failsafe” or “no fail” products, which means they are unsuitable for safety applications.

The firmware complies with Class A according to IEC/EN 60730-1 Annex H and the products are not intended to be relied upon for functional safety. The products may not be used as an SIS (safety instrumented system).

The requirements of standards such as IEC/EN 61508, IEC/EN 61511, IEC/EN 61131-1 & -2 were not taken into account.

The products do not comply with the EU Directives

- 2004/22/EC for measuring equipment
- 92/1/EEC for measuring equipment for frozen foodstuffs

# 4. Product structure

- EY-WS500F005 moduWeb500 hardware
- EY-WS505F010 moduWeb Vision software for 800 data points, 75 plant schematics, 25 users
- EY-WS505F020 moduWeb Vision software for 2500 data points, 250 plant schematics, 100 users

moduWeb500 is not capable of operation until one of the two moduWeb Vision software variants (EY-WS505F010/F020) has been installed and licensed.
Optional licences may be used to enable additional options:

- EY-WS505F011 upgrade from EY-WS505F010 to 2500 data points, 250 plant schematics, 100 users
- EY-WS506F100: moduWeb Vision Touch, optional, incl. various resolutions

Installation and licensing of the software is usually carried out by either SAUTER or a SAUTER system partner. Please contact them if an information page about missing software or a missing licence is displayed instead of the start page when you open moduWeb Vision.

## 5. Other applicable documents

| | |
|---|---|
| Fitting instructions | P100006978 A |
| Product data sheet | PDS 96.005 |
| Material declarations | MD 96.005 |
| BACnet PICS | D100101873 |

# 6. Operation

## 6.1 Supported browsers

The moduWeb Vision page is best viewed in the Microsoft Internet Explorer 11 browser. Other browsers such as Firefox, Opera and Chrome can also be used if they support HTML5, CSS3 and JavaScript.
The illustrations in this manual show the windows of the application as they appear in Internet Explorer 11. These are intended as examples only. The appearance of the windows may differ, depending on the browser you use.

The application uses JavaScript. JavaScript must be activated in the browser.

Cookies must be enabled in all browsers for the login and session process.

An overview of the symbols used in moduWeb Vision can be found in the appendix of this manual.

## 6.2 Starting moduWeb Vision, logging in and out

It is assumed that the system is ready for operation, which means the moduWeb500 web server is running and available for connecting to a PC. Instructions on starting the moduWeb Vision server can be found in section 21.2.1.

### 6.2.1 Calling up the application

Open a suitable web browser on your PC.

In the browser input window, enter the service with which you want to call up moduWeb Vision.

- Using the configured IP address, e.g. https://192.168.0.10
- Using a URL address, if moduWeb Vision is registered on the DNS server and has its own domain name, e.g. https://moduWebVision.dyndns.org

In a local network, you usually call up moduWeb Vision using the IP address, because there is not normally a DNS entry assigning a URL address to the issued IP address on a DNS server available from the local network.

For reasons of security, it is advisable to log in via https rather than http.

### 6.2.2 Logging in

Once the connection has been made, the login dialogue appears.

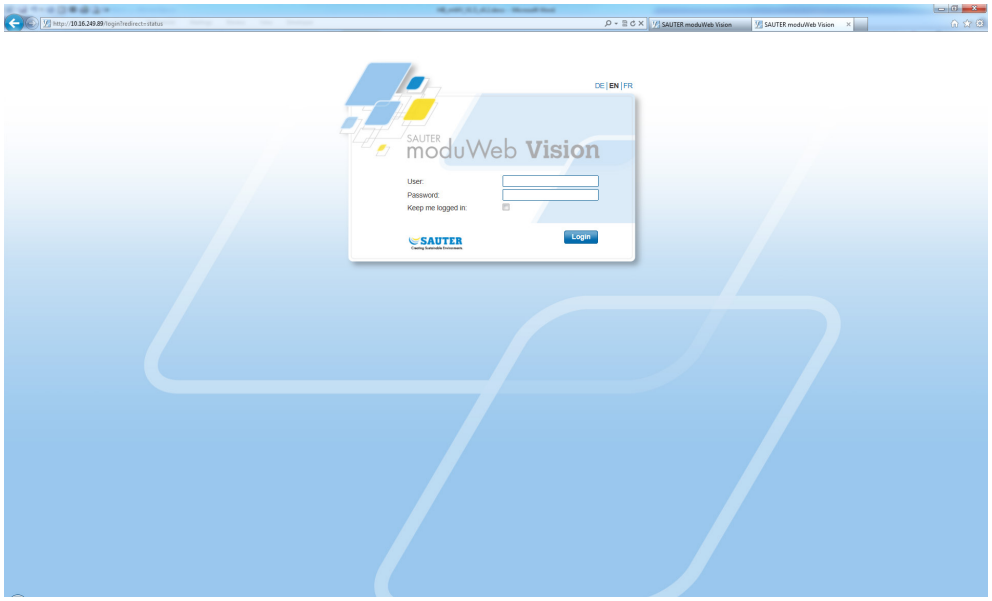



Fig. 1 Login dialogue

Enter your user name and password and click “Login”.
The default user name and password are “admin” and “passwd”.

During your first login you will be asked to change the standard password. The standard password “passwd” cannot be used any more.
For changing your user name and password, see section 18.1.6.

If you select the “Keep me logged in:” checkbox, your login information will be stored on the local PC (as an internet cookie) and the session remains open. If the “Automatic logout” function is enabled in the session management, the “Keep me logged in” checkbox is not visible.
If moduWeb Vision is called up again after the browser or PC is restarted, for example, the welcome page appears immediately without the login information needing to be entered. However, if you exit moduWeb Vision with “Logout” or if internet cookies are otherwise deleted, you need to log back in when you open moduWeb Vision again.

You can log in to moduWeb Vision as a user from different PCs at the same time until you reach the maximum permitted number of simultaneous system sessions.

You can also save each view of moduWeb Vision as a bookmark in your browser. This means you can go straight to your preferred view, for example the alarm list.

Click one of the language codes at the top of the login dialogue to select the language for moduWeb Vision. However, when you open moduWeb Vision again, the login window will again be shown in the standard language of the web browser.

### 6.2.3 Starting page

Once you have successfully logged in, the starting page appears. The starting node of the project navigation is selected and displayed as the starting page.

Fig. 2 Starting page. Project starting node and image.

If no image has been made in this node, a list of any data points contained is shown. That is why we recommend creating an attractive, helpful image during engineering.

The name of the current user is displayed to the left of the “Logout” button.

### 6.2.4 Logging out / closing moduWeb Vision

When you press the button, a menu with the following selection items opens:

- My profile
  Takes the user to the user management page
- Switch user
  The login dialogue opens. You can now change the user.
- Logout
  The user is logged out and the login dialogue appears.
- Switch profile
  The profile dialogue opens and the profile can be changed. Using the profile dialogue, you can select other touch profiles or go to the classic desktop user interface.

Fig. 3 Menu for logging in and out or exiting moduWeb Vision

### 6.2.5 Duration of a moduWeb Vision session

A time limit can be set for the duration of a session in moduWeb Vision. This time can be set in the “Session Management” settings; see section 19.5.
If no time is stored in the settings, the duration of the session is unlimited until the communication is terminated, the user leaves the website or the website is closed.
If the user wants to log in again on the device without having to enter the user data again, the “Keep me logged in” option must have been activated on the login page. Otherwise the user data must be entered again.

## 6.3 Main elements in moduWeb Vision

The following graphic explains the main elements using the example of a window in the information area of the example plant “Building”.

The view described here applies to all moduWeb Vision versions. In section 20, “Operation with touch option EY-WS506F100”, the alternative representation for touch panels is described.

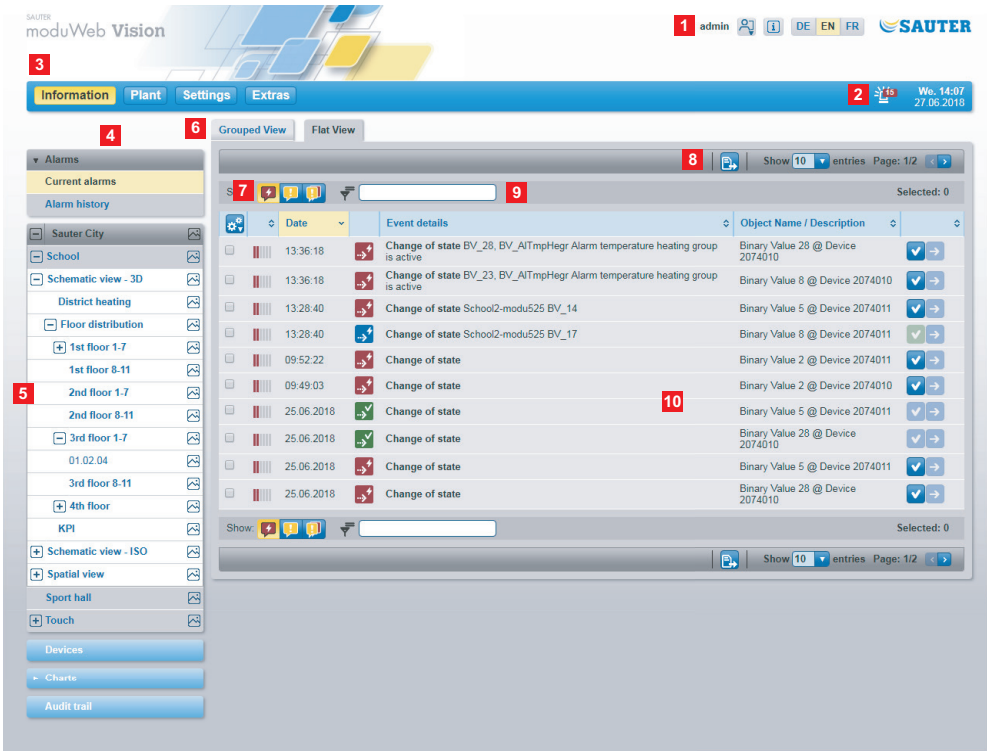



Fig. 4 Main elements in moduWeb Vision

**Header area**

1 Login and logout, i (info), language selection
2 Status indicator, e.g. alarm counter, SD card, USB stick, system time
3 Main menu

**Navigation area (left)**

4 Navigation tree
5 Plant navigation tree (for plant overview)

**Middle area**

6 Tab for switching view
7 Breadcrumb navigation (trail)
8 Number of data rows per page, page numbers, browse
9 Filter
10 Content area

## 6.4 User interface, display conventions

You can also save each view of moduWeb Vision as a bookmark in your browser. This means you can go straight to your preferred view, for example the alarm list.

Menu entries, icons, labelled buttons, etc. are shown in different colours:

- Elements in yellow are selected, and are applicable
- Elements in blue can be selected (are clickable)
- Elements in blue but greyed out are inactive and not clickable

These colour conventions do not apply to status icons.

Messages from the system about the successful execution of functions are shown on a green background. Messages about missing or inappropriate entries or other error states are shown on a red background.

Not all messages of this kind are described in this manual.

If the mouse pointer is on an element, its meaning or function in many cases is explained by a “tooltip” in a window.

### 6.4.1 Logout

You should always log out of moduWeb Vision at the end of the session. The login dialogue appears again.

### 6.4.2 i (Info)

Clicking the icon displays information about moduWeb Vision, such as firmware, serial number, etc.

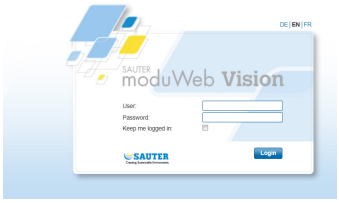



Fig. 5 i (info) window

Clicking “Further Details” displays detailed device information and information about the licences in use.

### 6.4.3 Languages

You can select one of the languages available here. German, English and French are installed as standard. You can add other languages using the CASE Sun program.

### 6.4.4 Status indicator

Important system status indicators appear here. The icons have the following meanings:

| | |
|---|---|
| | Alarm counter with the number of current alarms (22 in the example) |
| | SD card present (50% full in the example) |
| | SD card present but full |
| | USB stick present |
| | USB stick present, backup in progress |
| | USB stick present, data recovery in progress |
| | The system times of the PC and moduWeb Vision are more than 5 minutes out of sync |
| | System archiving the SD card |
| | System performing data aggregation |

**Alarm pop-up**

New alarms are displayed in a pop-up alarm window. Click “Snooze (5min)” to hide the window for 5 minutes, or click “OK” to close it until a new alarm occurs.

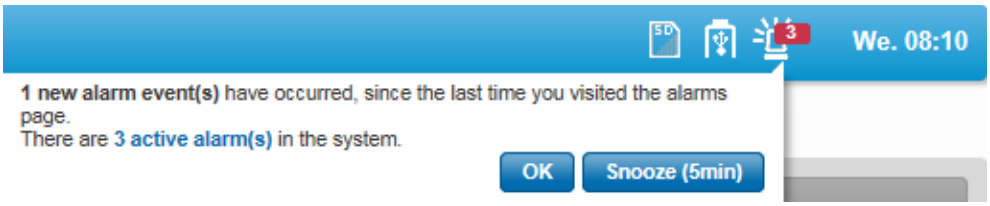



Fig. 6 Alarm pop-up

The moduWeb Vision system time and the system date with the cursor in the field are also displayed.

### 6.4.5 Main menu, menu tree

Click an entry in the main menu to open its menu tree. Select an entry in the menu tree to see the associated content.

### 6.4.6 Tabs

Use the tabs to switch between the different views.

### 6.4.7 Breadcrumb navigation (trail)

Breadcrumbs indicate the way through the menu structure. Click a breadcrumb to skip over various stages to the appropriate window.

### 6.4.8 Plant navigation tree (for plant overview)

The plant navigation tree is part of the “Plant (name of specific plant)” menu in the main “Info” menu; it shows the structure of the plant in question (visualisation structure); see section 7. You can use the plant navigation tree to find a particular part of the plant quickly.

### 6.4.9 Content area

The content area contains information such as system objects, alarm lists, diagrams or – if the system is appropriately configured – graphical representations of the plant.

Use the tabs if the contents cover several pages.
You can use the arrow icons at the top of the table to sort lists in ascending or descending order.

Images in the content area can be scaled based on the following criteria:

- Optimum size
- Max. width
- Original size

The images can also be scaled in full-screen mode.
Tables adjust dynamically to the size of the content area.

ⓘ The minimum resolution remains unchanged.

### 6.4.10 Filter

You can use filters to select the content of lists according to the criteria that you enter.

The filter affects the entire content section, in other words all the rows and columns displayed. It also affects icons by evaluating the tool tip texts.

## 6.5 Menu overview

The menus shown in this overview can be seen by users who are logged in as administrators. Some of the menus may not be visible to other categories of user. The tables below state where you can find information in this manual on each menu.

### 6.5.1 Main “Info” menu

Here you can call up information on the plant and its objects and their statuses, and enter value settings and perform switching functions here.

| | |
|---|---|
| **Alarms**<br>Current alarms<br>Alarm history | Section 8 |
| **Plant overview (specific plant name)** | Section 7 |
| **Devices** | Section 9 |
| **Charts**<br>Simple charts / logs<br>Combined charts | Section 10 |
| **Audit trail** | Section 11 |

When you click “Info” in the main menu, the starting node from your plant overview is displayed. If this is not configured, the first node of the plant overview is displayed.

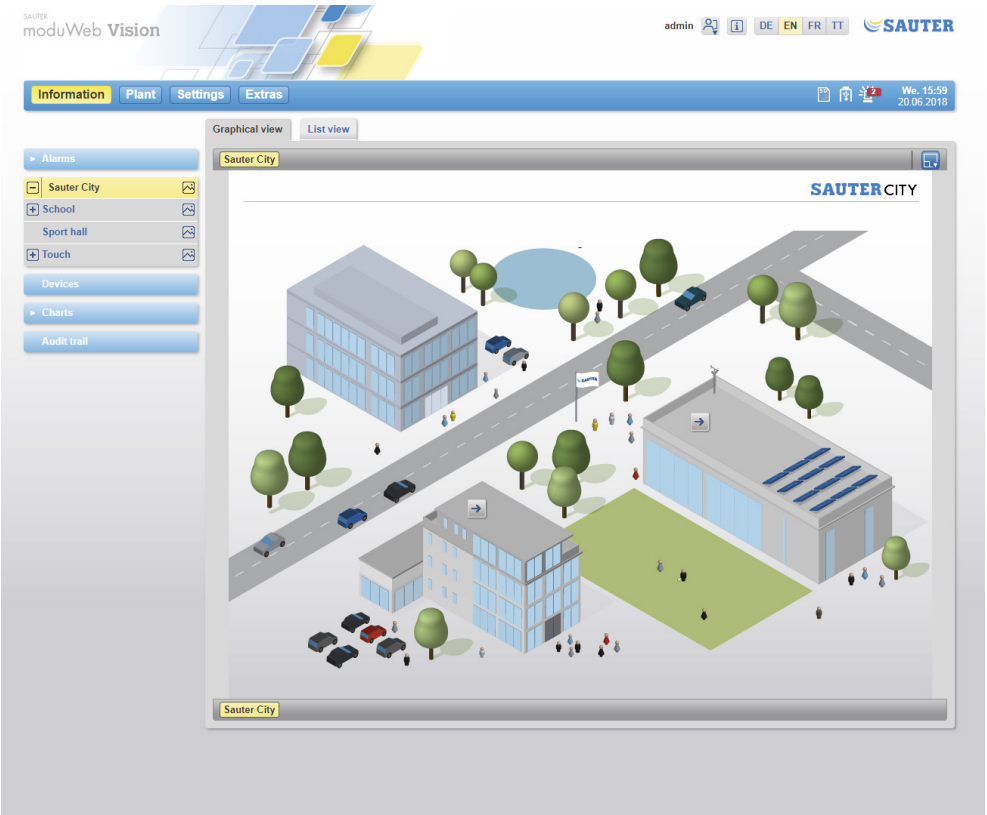



Fig. 7 Main “Info” menu, info screen

### 6.5.2 Main “Plant” menu

You can make various settings here: You can create schedules and calendars, special BACnet objects, chart settings and plant structure, and register devices.

| | |
|---|---|
| **Object settings** | |
| Schedules<br>Calendars | Section 12 |
| Commands | Section 13 |
| Trend Logs | Section 14 |
| **Chart settings** | |
| Combined charts<br>Simple charts / logs<br>Data logger | Section 15 |
| **Plant settings** | |
| Graphical view | Section 19.4 |
| Device registration | Section 16 |
| Plant structure editor | Section 17 |

When you click “Plant” in the main menu, a window with information appears.

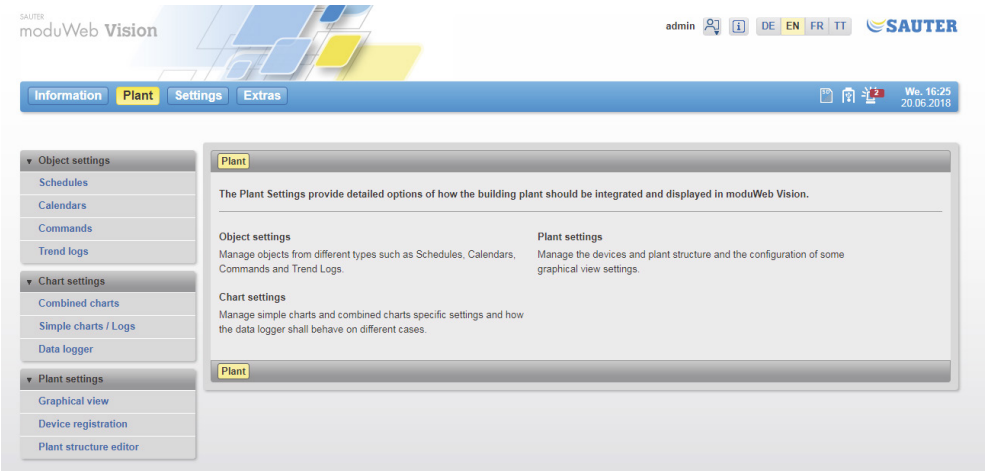



Fig. 8 Main “Plant” menu, info screen

### 6.5.3 Main “Settings” menu

You can make various settings here: on the one hand the user administration and on the other hand different system settings such as network settings, time settings, notifications etc.

| | |
|---|---|
| **User settings** | |
| User administration | Section 18.1 |
| Alarms<br>Alarm notification<br>E-mail format<br>SMS format<br>Audit trail<br>Reports<br>Reports notification<br>Report templates | Section 18.2<br><br><br><br>Section 18.3<br>Section 18.4 |
| **General settings** | |
| Alarm settings<br>Notification profiles<br>Default e-mail format<br>Default SMS format | Section 19.1 |
| Date/time settings<br>Date/time<br>Time server<br>Working days<br>Public holidays | Section 18.2 |
| Network settings<br>IP settings<br>Proxy settings<br>Access control list<br>E-mail server settings<br>SMS server settings | Section 19.3 |
| Display settings | Section 19.4 |
| Session management | Section 19.5 |

Click “Settings” in the main menu to open a screen containing information.

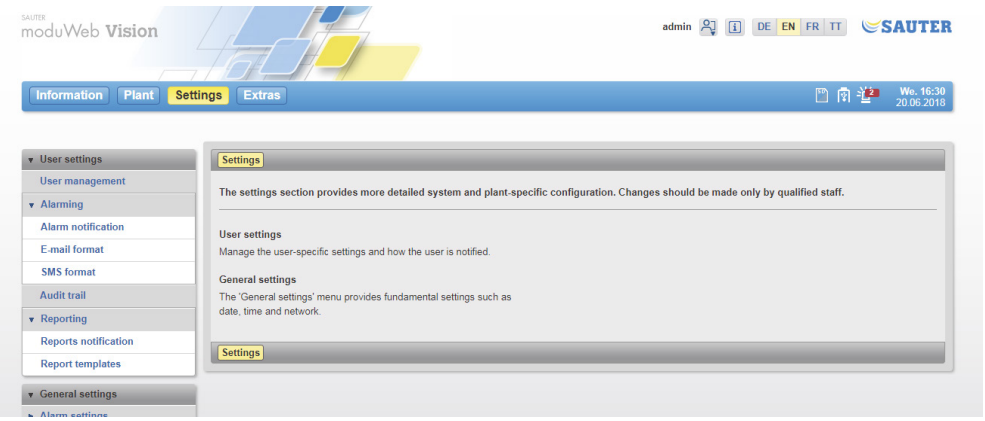



Fig. 9 Main “Settings” menu, info screen

### 6.5.4 Main “Extras” menu

You can carry out various system maintenance functions here, such as backups, software updates, restarting and resetting the system.

| | |
|---|---|
| **Backup/Restore**<br>Backup<br>Restore | Section 20.1 |
| **Storage**<br>SD card<br>USB device<br>Internal | Section 20.2 |
| **Weather module** | Section 20.3 |
| **Undelivered e-mails** | Section 20.4 |
| **Restart device** | Section 20.5 |
| **Reset**<br>Configuration reset<br>Factory reset | Section 20.6 |

Click “Extras” in the main menu to display a window containing information.

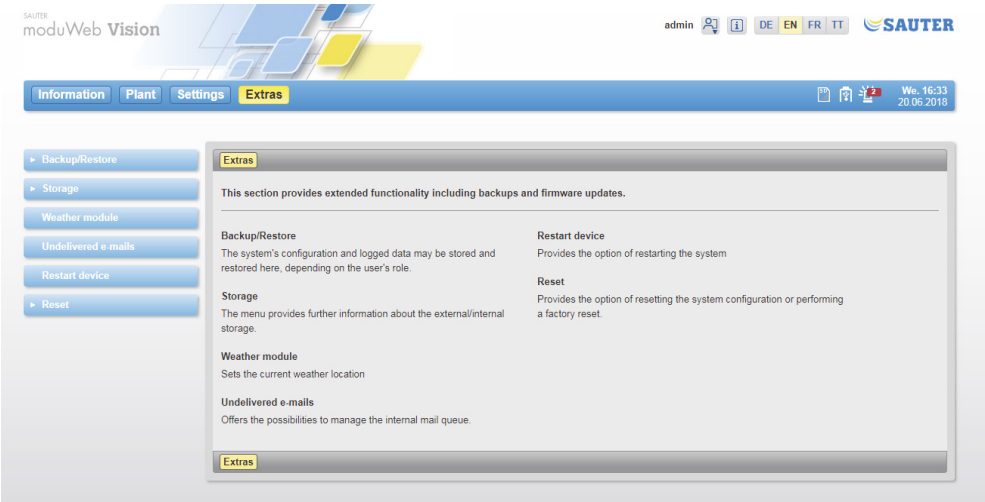



Fig. 10 Main “Extras” menu, info screen

# 7. Plant overview

This section describes the “Plant overview” section of the main “Info” menu. The plant overview is customer-specific and reflects the structure of each plant. You can give the plant overview any name you want. In the figures shown in this manual, the plant is called “Building”.

The general view described here applies to all moduWeb Vision versions. In section 20, “Operation with touch option EY-WS506F100”, the alternative representation is described.

Click the name of the plant in the menu tree in the main “Info” menu.
You can go to the part of the plant that you want by clicking the entries in the plant navigation tree.

You can choose between two display options:

- List view
- Graphical view (if available)

## 7.1 List view

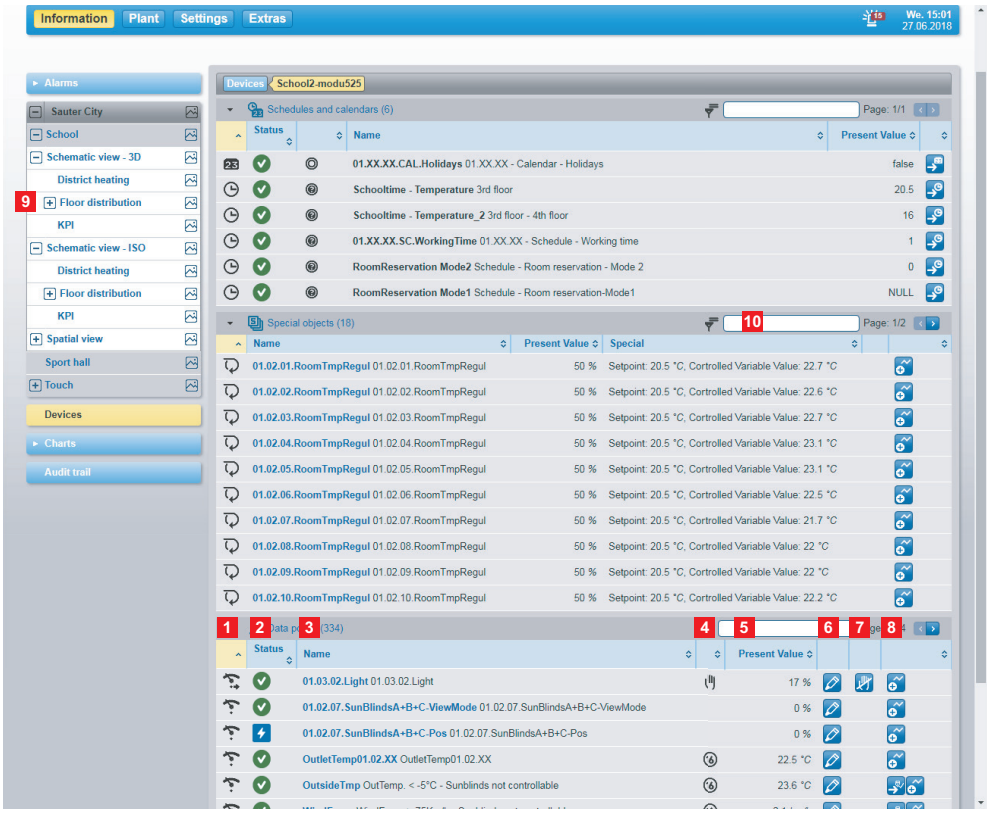



Fig. 11 Plant overview, list view

1 Object type icon

2 Object status icon

3 Object name and description

4 Control type icon (manual, schedule)
5 Actual value indicator
6 Icons for editing options
7 Icons for switching options
8 Icons for display options
9 Plant navigation tree with nodes
10 Filter input field

The list view shows the grouped BACnet objects (also known as data points) of the selected node. These can be the following BACnet objects:

- Inputs
- Outputs
- Values
- Schedules
- Control loops
- Heating and cooling optimisation modules

The icons in column 1 indicate the **object type**.
Examples of object type icons:

- Analogue value input
- Binary input

Click an icon to open the data point details window.

The icon in column 2 “Status” indicates the current **object status**.

| Category | | |
|---|---|---|
| Normal | | The object is in the normal state, which means a value is within the defined range or the status corresponds to that which is automatically specified. |
| Normal, not acknowledged | | The object has returned to the normal state and an alarm or error is no longer present. However, the end of the alarm still has to be acknowledged. After it has been acknowledged, the status indicator changes to the “normal” icon. |
| Alarm | | An alarm is present, for example because a threshold value has been exceeded. |
| | | An alarm is no longer present but still has to be acknowledged. |
| | | An alarm is present but has been acknowledged. |
| Error | | An error is present when a value cannot be reliably displayed, for example due to a sensor interruption or short circuit. |
| | | An error is no longer present but has not yet been acknowledged. |
| | | An error is present but has been acknowledged. |
| Out of operation | | The object has been put out of operation. |
| Override |  | A local operating unit has priority over the object. The displayed value/status is not necessarily the same as the actual value/status. |
| Device unavailable | | A device is unavailable, for example because it is switched off or not detected in the network. |

The same icons are also used in the alarm list; see section 8.1.3.

Column 3 “Name” contains the name of the object, along with the description, if present.
Click the name to open the data point details window.

Normally, the BACnet object name is a specific abbreviation for the building that is meaningful for the plant planners. The description is more understandable for the normal user.

The icon in column 4 indicates the control priority.

A prioritisation mechanism ensures that no conflicts occur between switchable objects when they receive commands from different instances. For example, a pump may be automatically switched on and off by a schedule and is currently switched off. The user can then attempt to switch the pump on and thus override the automatic control. Conversely, a protection mechanism for the pump may override the manual command from the user again.

Column 5 “Present Value” shows the current value of the BACnet object in engineering units.

In column 6, the icon indicates whether an object is writeable or switchable. If the data point is not writeable or switchable, the icon is greyed out.
If the data point is writeable, you can click on the icon to open a window where you can change the value, for example a temperature setpoint.
If the data point is switchable, you can click on the icon to open a window where you can carry out the switching operation, for example switching a pump on or off.

If, in addition to the icon in column 7, there is also a icon, this indicates that there is an active manual command or manual entry by the user. Click this icon to return to automatic mode.

In column 8, icons such as or indicate that data logs or schedules are available for this object. Click one of these symbols to view this information. If you click the icon, you can create a data log for this object.

## 7.2 Graphical view

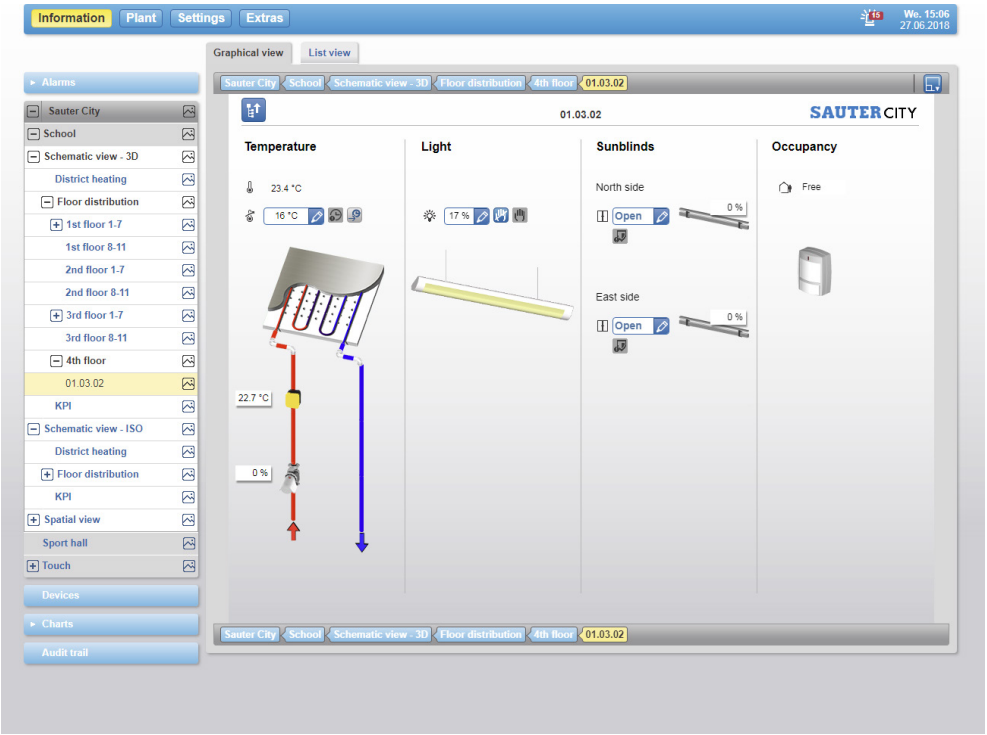



Fig. 12 Plant overview, graphical view

The graphical view shows the plant schematically with its BACnet objects. The icon indicates which navigation nodes also have a graphical view.

The data visible in the graphical view corresponds to the information in the list view.

The icons there have the same meaning and – if they are active – the same functions as in the list view.
Press the “Multi-function selection” button. A selection of different functions for displaying the graphic are shown.

Multi-function selection

Full screen

Quit full-screen mode

Best fit

Max. width

100% Original size

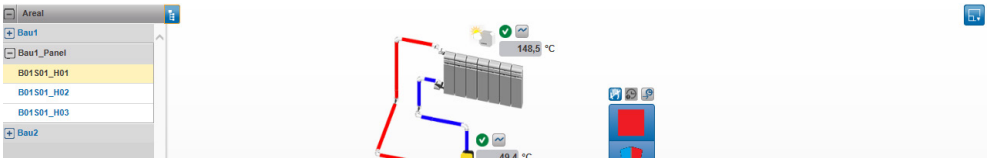



Fig. 13 Plant overview, graphical view in full-screen mode

Using the button, the plant structure can be opened or closed in full-screen mode.

## 7.2.1 Components of the graphical view

### 7.2.1.1 Standard data point component

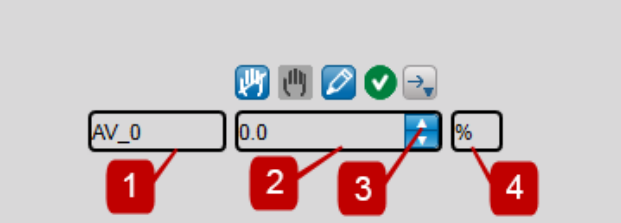



Fig. 14 Standard data point component

| | |
|---|---|
| | Satellite displays. Can be next to the value field above or below, and vertically or horizontally. The setting depends on the engineering. |
| | This drop-down icon is displayed if more than 5 satellites are being used. |
| | Reset button. Appears if the value has been set manually by a user. If it is pressed, the entry in the priority table is deleted accordingly (NULL). |
| | Priority display. With “commandable” objects, the highest priority is indicated by an assigned symbol. This can be represented by a defined symbol or by a number. |
| | Status display. It is possible to represent the status of the data point. For this, the same symbols as in the table in section 7.1 are used. This satellite can be configured into a button. This button can be used to acknowledge an existing alarm for a data point. The “Normal” state can be hidden. |
| | Link to the chart. If a chart is configured for this data point, it is possible to provide a link to the corresponding chart display. |
| | Link to the schedule. If this data point is controlled by a schedule, it is possible to provide a link to the corresponding schedule view. |
| | Link to the data point. Clicking on the button takes you directly to the data point. |
| | Button for opening the dialogue for changing the data point value. |
| 1 | Labelling. It is possible to display the object description. The relative position (front, back) to the data point value is configurable in the engineering. |
| 2 | Data point value. This is a central component. In this way, the Present Value property is displayed. Depending on the data point type, other display options exist, which are described further below. In some cases, other values (such as the upper limit value) can be displayed as the Present Value property. |

| | |
|---|---|
| 3 | Data point value change. If the data point is writable, a control appears on the right in the data point value component. See the table below.<br>If the data point is not writable, only the current value is displayed without controls. |
| 4 | Unit. It is possible to display the unit. The relative position to the data point value (front, back, together with the value) can be configured in the engineering. |
| 1, 2, 4 | The background colour, border colour, border width and font sizes can be configured in the engineering. |

Alternatively, the satellite displays can also be represented as individual buttons. When these are pressed a pop-up menu appears.

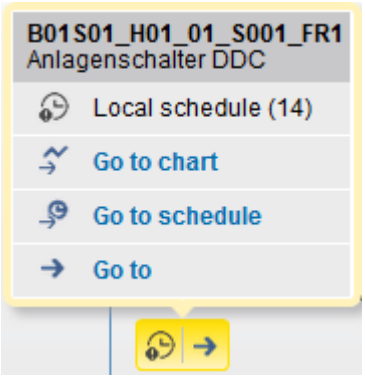



Fig. 15 Satellite pop-up

You also have the option to use the tooltip mode. When you move the mouse over a component, the corresponding setting icons are displayed directly in the tooltip. You can use the function only if it has been enabled in the engineering.

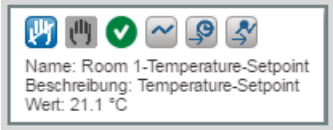
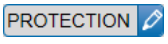


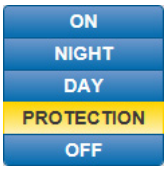

Fig. 16 Displaying a tooltip with setting icons

| | Float | Binary | Integer | |
|---|---|---|---|---|
| Not writable | | | | Text box |
| Writable | | | | Numeric stepper |
| | | | | Numeric stepper with button |
| | | |  | Textbox with button for editing |
| | | | | Trigger button<br>Transmits a predefined value when pressed |
| | | | | Selection box |
| | | | | Pulse button<br>Transmits one value when pressed and another value when released. |
| | | | | Toggle button<br>The toggle button is a locking switch and has two states.<br>If the button is pressed, it “locks” into place visually, and the value is transmitted. For better visibility, the colour changes.<br>If the button is pressed again, it “unlocks” visually, and the value is transmitted. For better visibility, the colour changes again. |
| | | | | Toggle switch |

### 7.2.1.2 Button group component

The component allows you to control writable binary or multi-state data points with buttons. In this way, the component generates as many buttons as the data point supports. Each button can be configured with text and/or images.

For multi-state data points, there is an option to remove individual statuses. This makes it possible to display 1-2-4 instead of 1-2-3-4.

| | Float | Binary | Integer | |
|---|---|---|---|---|
| Writable | | |  | Button group |



### 7.2.1.3 Status bar component

An alternative representation option is the status bar. With this, all error states of a data point are shown with a grey icon. If one of the error states applies, the corresponding icon is displayed in black.

Fig. 17 Status bar component

### 7.2.1.4 Priority bar component

Another alternative representation option is the priority bar. The 16 possible priority levels are greyed out. If one or more of these write commands applies, it is displayed in black with the written value.

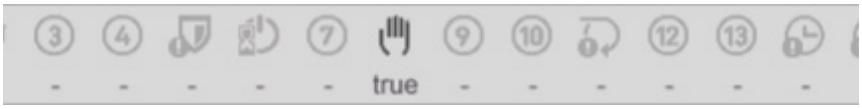




Fig. 18 Priority bar component

### 7.2.1.5 Slider component

This component allows the data point value to be set using a slider.

Fig. 19 Slider component

### 7.2.1.6 Image component

The image component displays an image.

#### 7.2.1.7 Animation component

The animation component displays different images. The animation is controlled by the Present Value or the state of the data point.

#### 7.2.1.8 Shape component

The shape component allows the creation of areas in the image with a different border colour, border width, background colour, and shape (rectangle, rounded rectangle and ellipse).

#### 7.2.1.9 Link component

The link component allows you to navigate to the following views:

- Calendar
- Schedule
- Combined chart
- Trend
- Document
- Nodes in the navigation
- URL (Uniform Resource Locator)
- Button

#### 7.2.1.10 Linear gauge

This component allows the dynamic display of analogue values. The following configuration options are available:

- Vertically, upward or downward
- Horizontally, forward or backward
- With or without indicator
- Image or colour as a background (can also be displayed transparently)
- Coloured graduations

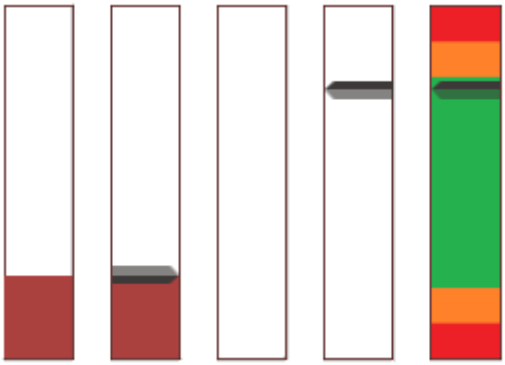


Fig. 20 Linear gauge

#### 7.2.1.11 Cluster

A cluster is a grouping of the various components. For example, plant schematics are created that contain data points, images and animated elements.

#### 7.2.1.12 Circular gauge

The circular gauge is required for displaying analogue objects. The circular gauge provides the same configuration options as the linear gauge.

### 7.2.1.13 Weather forecast

The weather forecast component is connected to the SAUTER weather server for the location that is set. The component offers a high level of flexibility in relation to the values displayed:

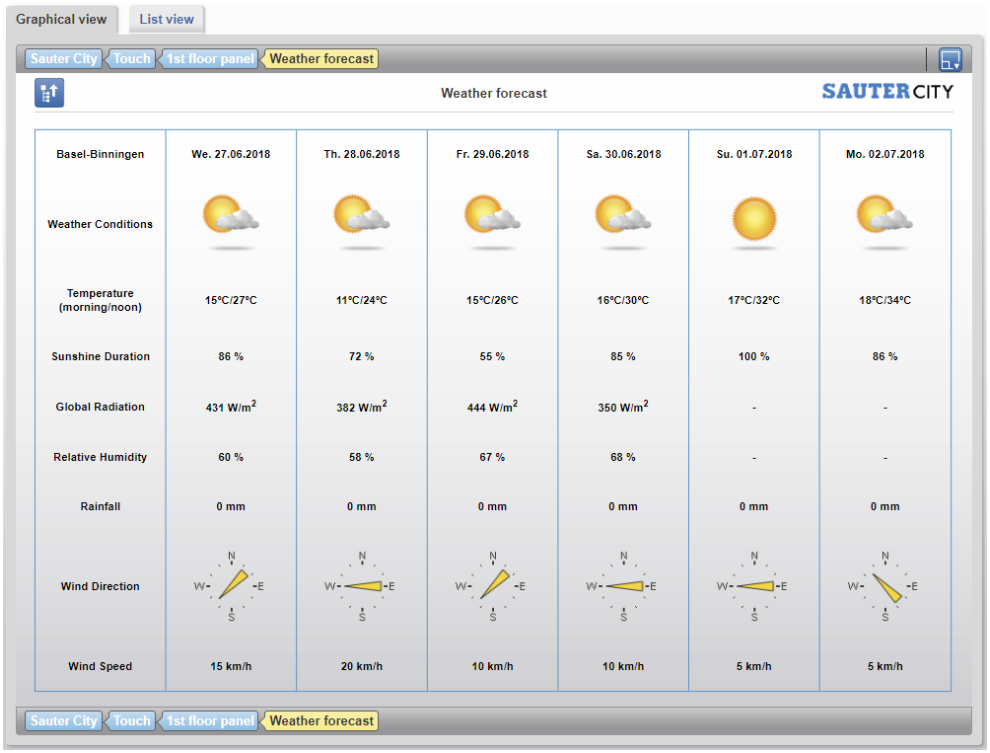



Fig. 21 Weather module

### 7.2.1.14 iFrame

The iFrame component offers a placeholder in which external content can be displayed. For example, a webcam or a YouTube video can be incorporated.

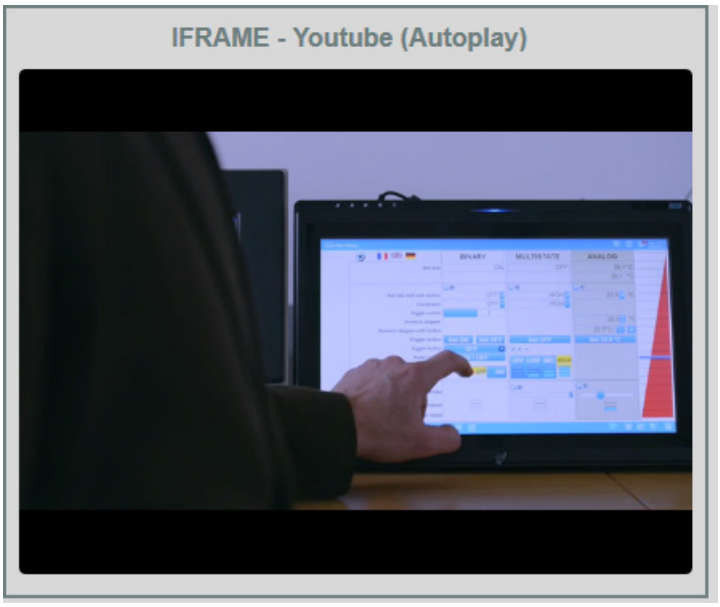



Fig. 22 iFrame display

### 7.2.2 Special display for room management

Room management images show the grouping of room segments based on their master-slave dependency.

The management of the room segments is a functionality in SVC, and mWV can display these images.

Fig. 23 Special display for room management

# 8. Alarms

This section describes the “Alarms” area in the main “Info” menu.

Click “Alarms” in the menu tree in the main “Info” menu.

moduWeb Vision has two separate lists:

- Current alarms: All active alarms and errors in the system **or** inactive alarms and errors that still have to be acknowledged.
- Alarm history: Alarms and errors that are not active **and** do not have to be acknowledged.

Both lists can be displayed in a “flat” view or a “grouped” view.

ⓘ Both alarm and error messages are listed. The term “alarm” is used for both in the following section.

The displayed messages not only include messages from BACnet (for example errors such as sensor interruptions, values outside the permissible range or failure to contact configured devices), but also internal system messages from moduWeb Vision (such as memory running out on the SD card, faulty configuration files and incorrectly configured server settings).

## 8.1 Definition of terms

The following section defines some important terms connected to alarm messages.

### 8.1.1 Alarm/error messages

A distinction is made between alarm messages and error messages.

- An alarm message is triggered, for example, when a value is outside the set maximum or minimum limit. This is a defined state and it can be assumed that the displayed values are correct.
- An error message is triggered when the system enters an unexpected state, for example when there is a sensor interruption, a short circuit or a faulty configuration file. In this case, the displayed values for data points may be faulty.

ⓘ The total size of the alarm and error list is 500 entries (from version 1.9.5 on, there are 1000 entries). Included are all alarm and error messages which are listed in any of the alarm views (current alarms, alarm history).
If this limit is reached, the oldest entries from the alarm history list are deleted when a new alarm message arrives. In extreme cases, the oldest entries in the current alarms list are also deleted.

### 8.1.2 Alarm and event priority

The priority (importance) of alarms is indicated by the following icons:

| | |
|---|---|
| | Risk of serious or fatal injury (priority 0-31) |
| | Damage to property (priority 32-63) |
| | Monitoring (priority 64-95) |
| | Problematic (priority 96-127) |
| | Miscellaneous, high priority (priority 128-191) |
|  | Miscellaneous, low priority (priority 192-255) |

The events are displayed based on the same principle as the alarms (in yellow)
These priorities are based on the defined message priority classification suggested in the BACnet standard.

### 8.1.3 Alarm status

The current status of alarms is indicated by the following icons:

| Category | Status | | |
|---|---|---|---|
| | Active | Inactive, unacknowledged | Active, acknowledged |
| Alarm | | | |
| Error | | | |

### 8.1.4 Changes of status

Changes of status are indicated by the following icons:

| Category | Change of status | | | |
|---|---|---|---|---|
| | From normal to abnormal, alarm or error active | | From abnormal to normal, alarm or error inactive | |
| | Acknowledge-ment required | Acknowledged | Acknowledge-ment required | |
| Alarm | | | | |
| Error | | | | |

The and icons only appear with alarms that require acknowledgement.
Acknowledgement: The most recent change of status must be acknowledged if the settings for that require it. The reason for this is to make sure that a suitably authorised person notices the alarm and marks it as “seen” by clicking the icon. This procedure ensures that alarm handling is reliable and traceable, and is also logged in the audit trail.

### 8.1.5 Notification

Optionally, selected user groups can be notified of alarms by e-mail and SMS. The alarm priorities are assigned to the various user profiles under “Notification settings” in the main “Settings” menu; see section 19.1.

### 8.1.6 Timestamp

Each alarm is given a timestamp. If the alarm is from the current day, the time of the alarm is displayed. If it is from another day, only the date is displayed.
You can move your mouse over the timestamp to see a box with the date and time.

The timestamp is generated by the automation station when the event occurs.

### 8.1.7 Alarm history

All alarms and events that are no longer active are saved in the “Alarm history” or moved there manually.
The alarm history list contains BACnet events of the “alarm” type and events of the “event” type.
The different types can be filtered using the following buttons.

- Red for “alarm”
- Yellow for “event”
- Red/yellow for both

### 8.1.8 Grouped view

In the grouped view, all changes of status of a BACnet object are brought together in an alarm group. This means the current status of an alarm can be seen in a line.

Click “Current alarms” in the menu tree in the main “Info” menu.

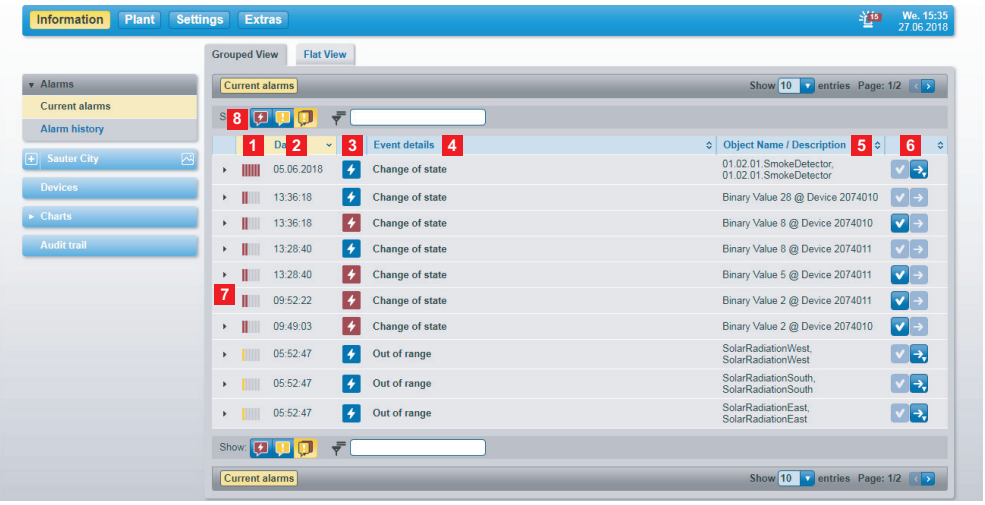



Fig. 24 Alarm list, grouped view

1 Alarm priority icon
2 Timestamp
3 Alarm status icon
4 Description of the event
5 Object name and description
6 Icons for acknowledgement or intervention options
7 “Expand” icon
8 Filtering the list based on the “alarm” or “event” types, or both.

The icon in column 1 indicates the alarm priority.

Column 2 “Date” contains the timestamp for the last change of status for the alarm.

The icon in column 3 indicates the alarm status.

Column 4 “Event details” contains the timestamp for the last change of status of the alarm.

Column 5 “Object Name / Description” contains the source of the alarm.

In column 6, the icon indicates that a change of status must be acknowledged. If no acknowledgement is possible or required, the icon is greyed out.
You can click on the icon to go to a window where you can carry out actions related to the alarm. If the option is not available, the symbol is greyed out.
You can expand any alarm to view all its changes of status by clicking on the “Expand” icon at the start of the line.

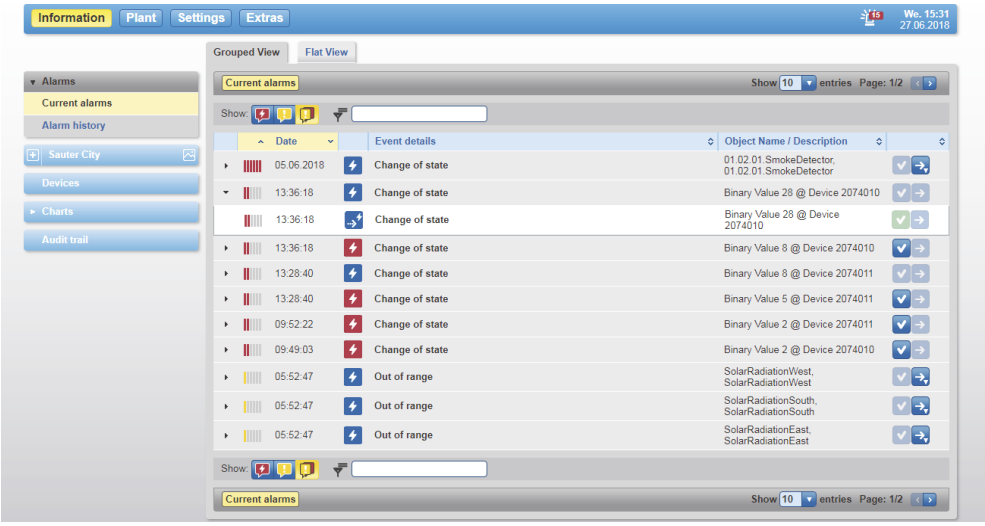



Fig. 25 Alarm list, expanded grouped view

All changes of status and therefore the history of the alarm are displayed.

### 8.1.9 Flat view

The flat view shows the same content as the grouped view. However, the individual changes of state are not grouped, but all shown in chronological order.

This gives you a better overview of the alarm occurrences over time. Because it is easier to see when each alarm was triggered, it is also easier to see how alarms from the various data points are related.

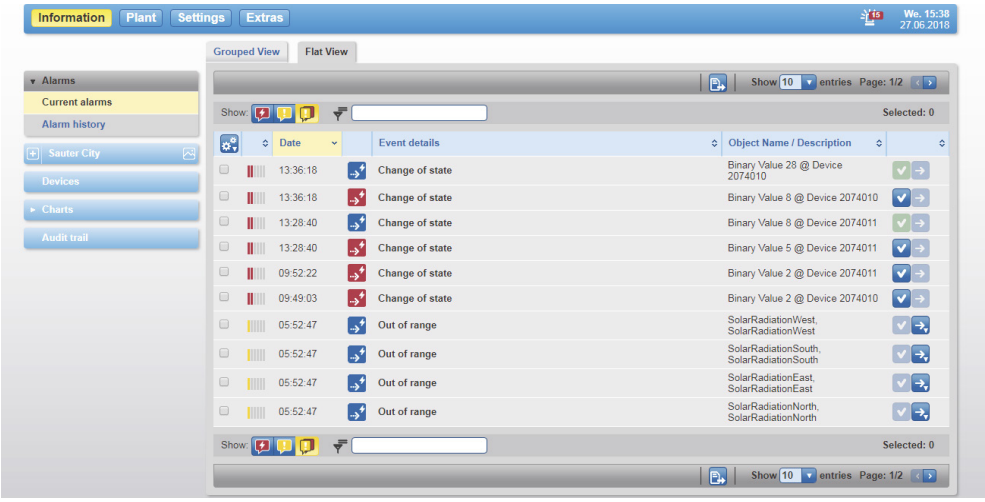



Fig. 26 Alarm list, flat view

In the flat view, you can select several alarms and confirm them all together or move them to the alarm history.
To do this, select the checkboxes at the beginning of the lines containing the alarms and carry out the required action using the icon. Possible actions are:

- Acknowledge
- Force to history

Instead of selecting alarms manually, you can use the icon to select or deselect several alarms. Possible actions are:

- All
- None
- All on page
- None on page

In certain circumstances there may be alarms in the active list that are no longer required or relevant (dead alarms). You can use this action to move them to the alarm history list, even though they do not meet the appropriate criteria. This should only be done with the utmost caution by authorised users and should not normally be necessary.

### 8.1.10 Exporting the alarm and event list as a CSV file

Press the button to export the flat view as a CSV file.
A dialogue box opens. Assign a file name and a path at which the file is to be saved.
For the automatic generation of the CSV file, see section 23.1.4.

# 9. Devices

This section describes the “Devices” area in the main “Info” menu.

All devices and objects registered in moduWeb Vision can be displayed in a list. You can view details on every device and object and also edit some of them.

## 9.1 Device and object lists

Click “Devices” in the menu tree in the main “Info” menu.

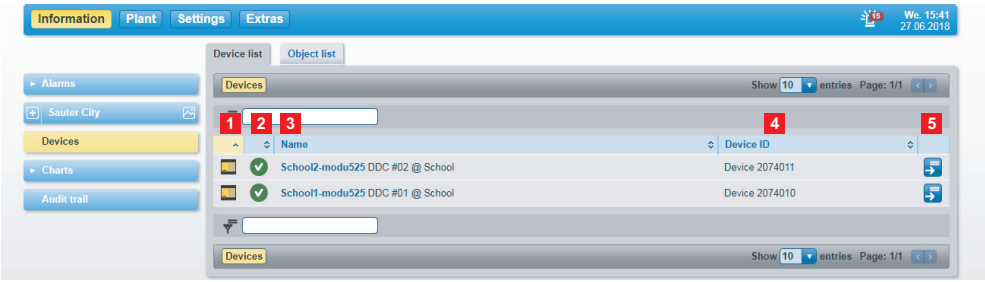



Fig. 27 Devices, device list

1 Device type icon
2 Device status icon
3 BACnet device name and description
4 Device ID (BACnet DOI)
5 Icon for switching to the object list

A list of the registered devices is displayed.

The icon in column 1 represents the type of device. Click on the icon to go to the object list for this device.

For SAUTER devices, the icon resembles the device. For non-SAUTER devices or devices whose type information is faulty or cannot be read for any other reason, the icon is a question mark.

The icon in column 2 shows the current status of the device; see section 7.

Column 3 “Name” contains the name of the device. This corresponds to the “Description” property of the associated BACnet device object.

Because “Description” is an optional property in the BACnet standard, the mandatory field “Object name” is also used. Normally, the BACnet object name is a specific abbreviation for the building, that is understood by both the plant planners and operators.

Column 4 “Device ID” shows the identification of the device.
You can use the icon in column 5 to switch to the object list of the device.

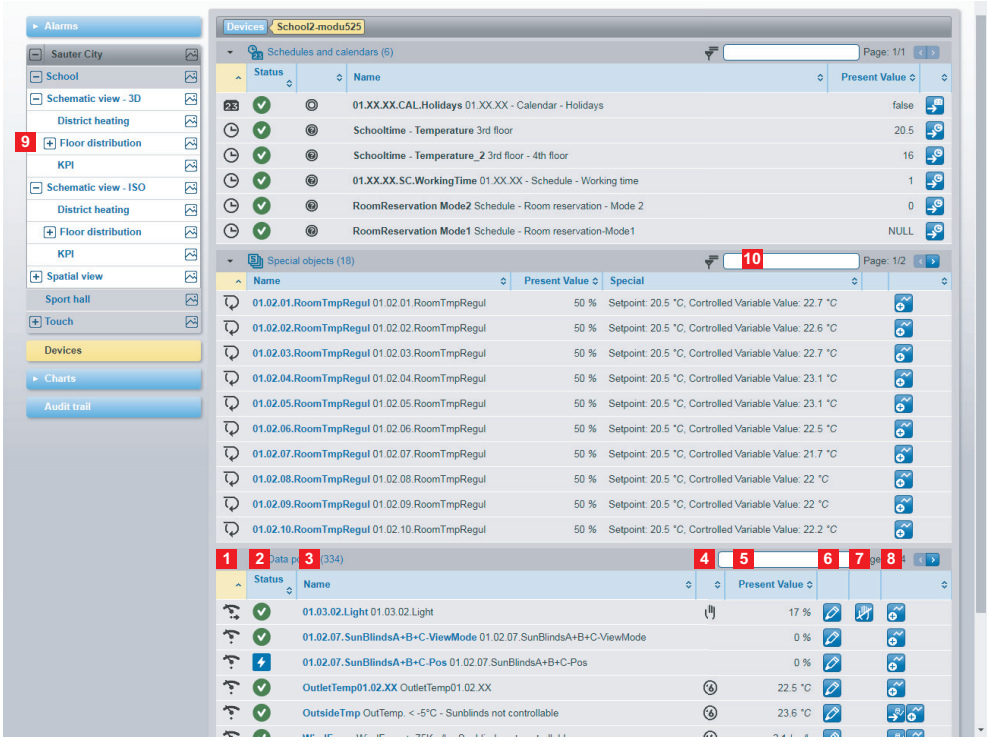



Fig. 28 Object list of a registered device

A list of all the registered objects is displayed.

## 9.2 Device details

Click a device name in the device list (see Fig. 27).

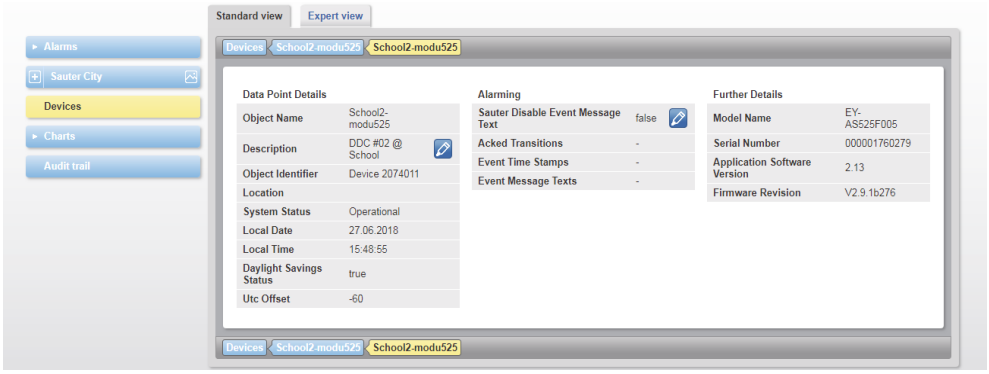



Fig. 29 Devices, standard view

The standard view shows all BACnet device objects.
The icon indicates that an entry can be changed.

Click on the “Expert view” tab to open a window containing all the details. The same icon for editing is available there.

## 9.3 Object details

Click the name of an object in the list (see Fig. 28).

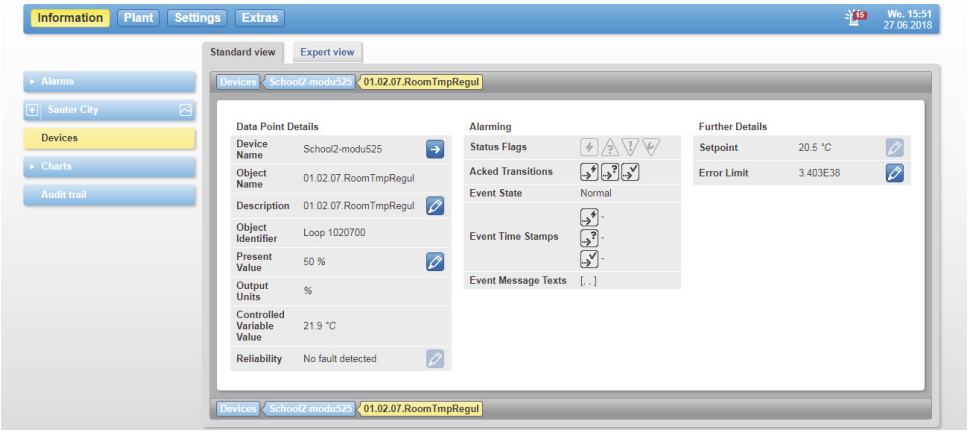



Fig. 30 Objects, standard view

The most important details of this object are displayed in the standard view.
The icon indicates that an entry can be changed. If an entry cannot be changed, the icon is greyed out.

The icons such as , , etc., for the object status, the status transitions and event timestamps, have the same meaning as the corresponding icons in the alarm lists; for the description, see section 8.1.3 and 8.1.4. Inapplicable icons are greyed out.

Click on the “Expert view” tab to open a window containing all the details. The same icons for editing and display are available there.

# 10. Charts

This section describes the “Charts” area in the main “Info” menu.

Charts are the diagrams of data point logs. There is a distinction between the following:

- Simple charts (“Simple charts / logs” menu)
- Combined charts (“Combined charts” menu)

Simple charts graphically display a logged data point without the user having to make any other settings.

Combined charts can show up to six simple data points at the same time. You can also make additional settings for combined charts; see section 15.

The charts can be compressed to a different number of measuring points depending on the time resolution.

## 10.1 Simple charts / logs

An overview of all the data point logs in the system can be found here.

Click “Charts” and then “Simple charts / logs” in the menu tree in the main “Info” menu.

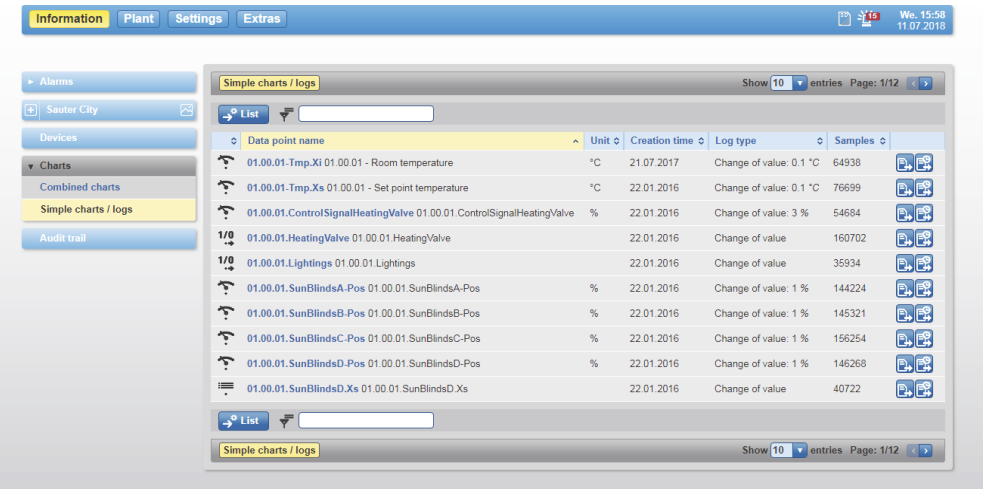



Fig. 31 Simple charts / logs, overview

Here you can see information on the logged data point such as the unit, data point name, creation time (start of logging), log type and number of values recorded so far.

### Data export

Using the icon, you can export the values of this log as a file in CSV format. You can select the period of time and the resolution in a pop-up window. This table of values can be displayed in a CSV-capable program (such as Microsoft Excel).

Click “List” to switch to the settings view; see section 15.

Click on the name of a data point to open the corresponding chart.

Fig. 32 Simple charts / logs, chart

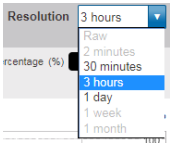
1 Historic view
2 Colour, status, name of the data point
3 Timeline
4 Chart
5 Live view
6 Time range selection
7 Timeline navigator
8 Shows the corresponding value on the chart where the mouse pointer is positioned
9 Export icon
10 Print icon
11 Full screen icon

### View selector icons

You can select how the chart is displayed using the icons (11) at the top of the screen.

| | |
|---|---|
| | Switch to full screen. |
| | Quit full screen mode. |

You can use the other icons to change the zoom level of the chart. Click one of the symbols to change the section displayed.

| | |
|---|---|
| | This icon allows you to set the period of time to be considered. The possible time periods are: “Last hour”, “Last day”, “Last week”, “Last month”, “Last year” and “All”. You can zoom in and out around the middle point of the current time range until the displayed time range is as you want it. |
| | You can use the “zoom in” and “zoom out” icons to increase and reduce the zoom level. |
| | Using the arrow symbols , the resolution of the time range can be increased or reduced in steps. |
| | The two fields can be used to select both the start and end dates and the start and end times for the chart display. |
|   | The resolution can be used to make the display rougher or finer. |

In the chart (4), you can use the timeline (3) to zoom in and out and change the displayed section.

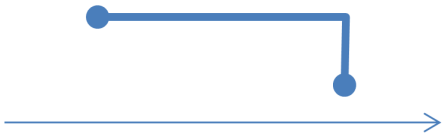
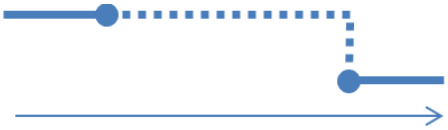
- You can use your mouse pointer to select an area of the chart to enlarge. To do this, hold down the left mouse button and move the mouse to the left or right.
- An area on the timeline is displayed in a lighter colour than the rest. This lighter area corresponds to the part of the chart that will be displayed. You can change the area using the slides to the left and right of it.
- You can move the lighter, active part of the timeline with your mouse pointer, which changes the part of the chart to be displayed.

You can use the two icons (6) to change the zoom level of the timeline.

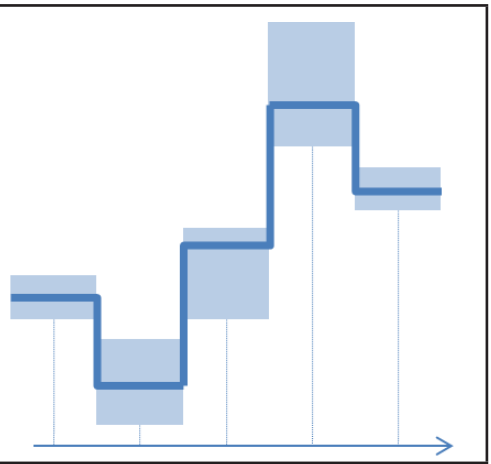
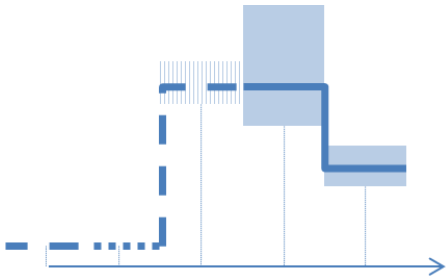
- When you zoom in or out, the active section of the timeline is also changed. You can use these two icons to keep this section to the size that you want.

If you move your mouse over the chart, the current date and the value for this point are displayed.

### Full-resolution display (RAW)

| | |
|---|---|
| The measured values are displayed using dots. The measured value is kept until a new measured value is known. It is displayed as a horizontal line. At the time of the next measured value, the line moves vertically to this measured value. |  |
| If the data connection is interrupted, the graphic connection between the last measured value before the interruption and the next measured value after the interruption is displayed as a dotted line. |  |

### Consolidated display

| | |
|---|---|
| The average is calculated for each integration interval. The horizontal segments show the calculated average. The interval is displayed by means of a transparent area positioned above the time interval. The transparent area shows the maximal value of the integration interval as the top value and the minimum value as the bottom value. The line displayed in bold shows the average value of the interval. |  |
| If there is an interruption in the data connection, the graphic is displayed as follows:<br>• Dotted segment: No values are available in the interval. Therefore, no calculation is possible. The last known value is kept.<br>• Dashed segment: Isolated values are available. An average is calculated and a hatched area is displayed with the minimum and maximum values. |  |

### Data export

Using the icon (9), you can export the values of this log as a file in CSV format. You can select the period of time and the resolution in a pop-up window. This table of values can be displayed in a CSV-capable program (such as Microsoft Excel).

### Print

Using the icon (10), you can print the displayed chart in a print-optimised format (without menu bars etc.).

### Live view

The “Live View” tab displays a chart with the current values. The values are queried within an adjustable time period and the development is displayed.

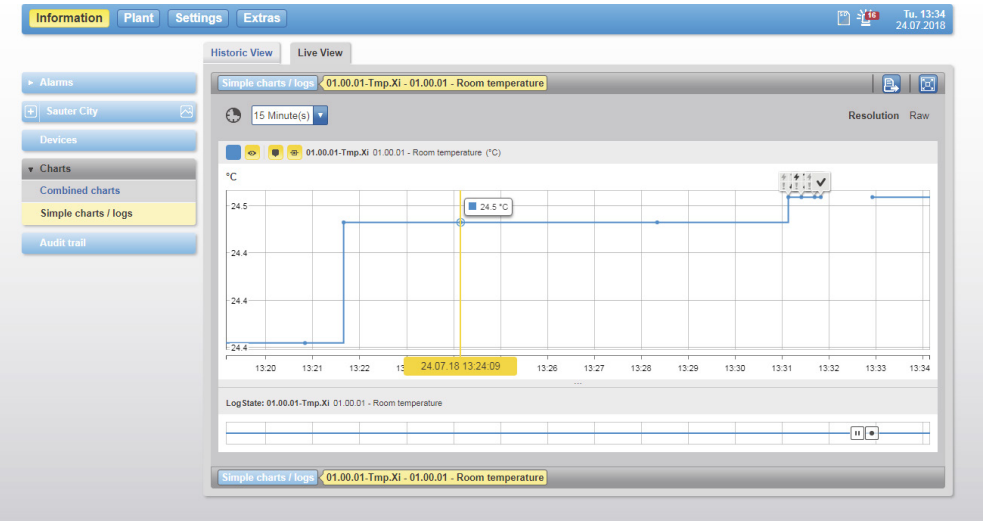



Fig. 33 Live view of a simple chart / log with activated status flags

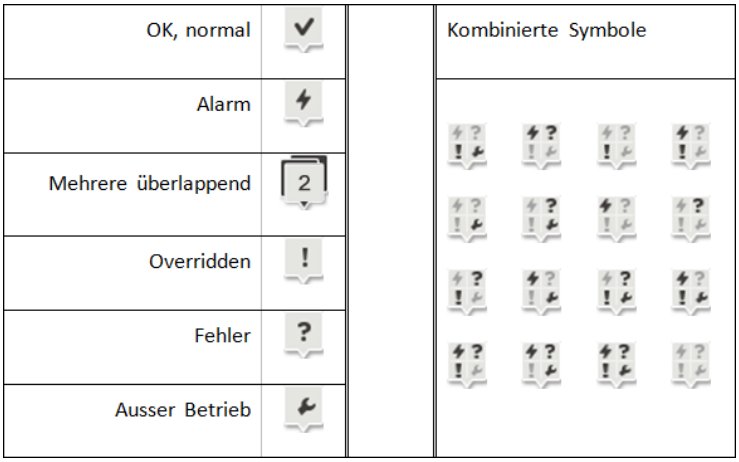



Fig. 34 Icons displayed in the chart when the status-flags icon is activated ( ).

| | | | | | |
|---|---|---|---|---|---|
| Pause | | Change in the polling interval | | Log type: unknown | |
| Logging | | Download or restore | | Time change | |
| Shut down | | Termination | | Log type: COV | |
| Start up | | Log type: Trend Log | | Log type: Polling | |
| Delete buffer | | | | Several overlapping icons (e.g. 3) | 3 |
| Buffer overflow | | | | | |

Fig. 35 Icons which can appear in the charts for log or system-status time axes when the system-status icon is activated ( ).

## 10.2 Combined charts

An overview of all the combined charts in the system can be found here.

Click “Charts” and then “Combined charts” in the menu tree in the main “Info” menu.

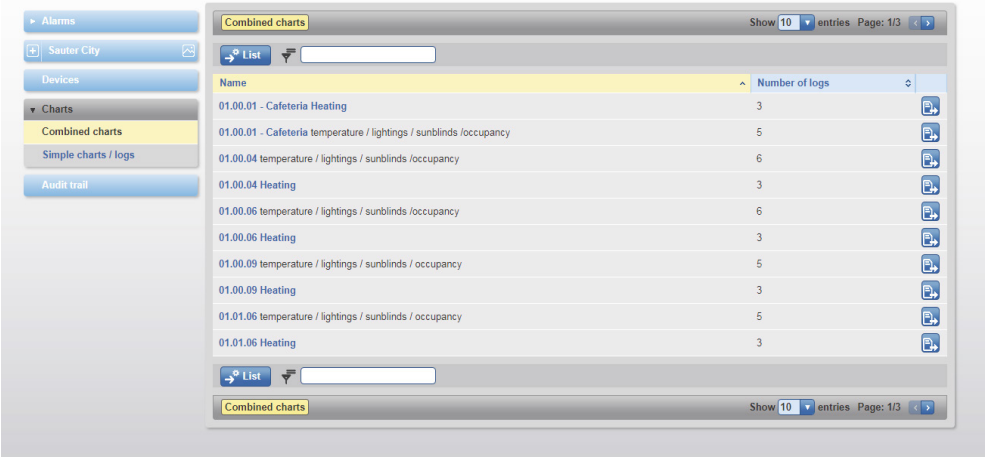



Fig. 36 Combined charts, overview

Here you can find information on the recorded charts such as the diagram name and the data point logs it contains.

Click “List” to switch to the settings view; see section 15.

In the settings, you can select whether several data points are to be shown in one chart or whether the data points should be displayed in separate charts (diagrams), see section 10.3.

The appearance of combined charts is basically the same as that of simple charts (see section 10.1), except that they show several data points simultaneously. Each data point is shown in a different colour.

Above the chart, there is an overview of the displayed data points and the colours used for them.
Before you export data with the icon, you can use the field to the left of this icon to select the data point from which the values are to be exported.
To open a chart, click its name.

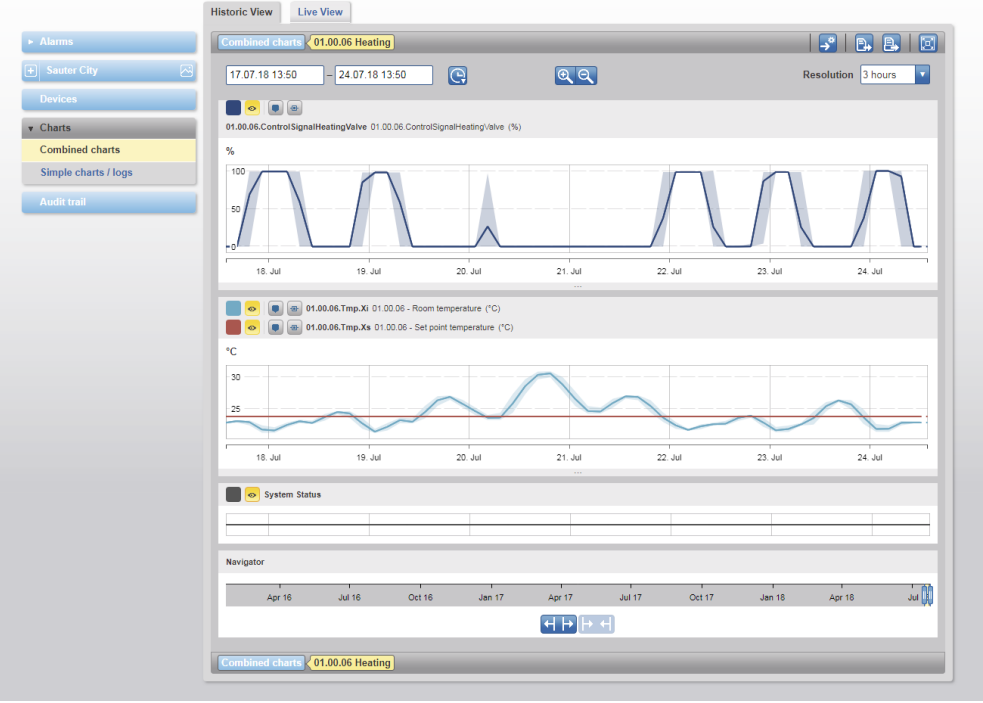



Fig. 37 Combined charts, chart

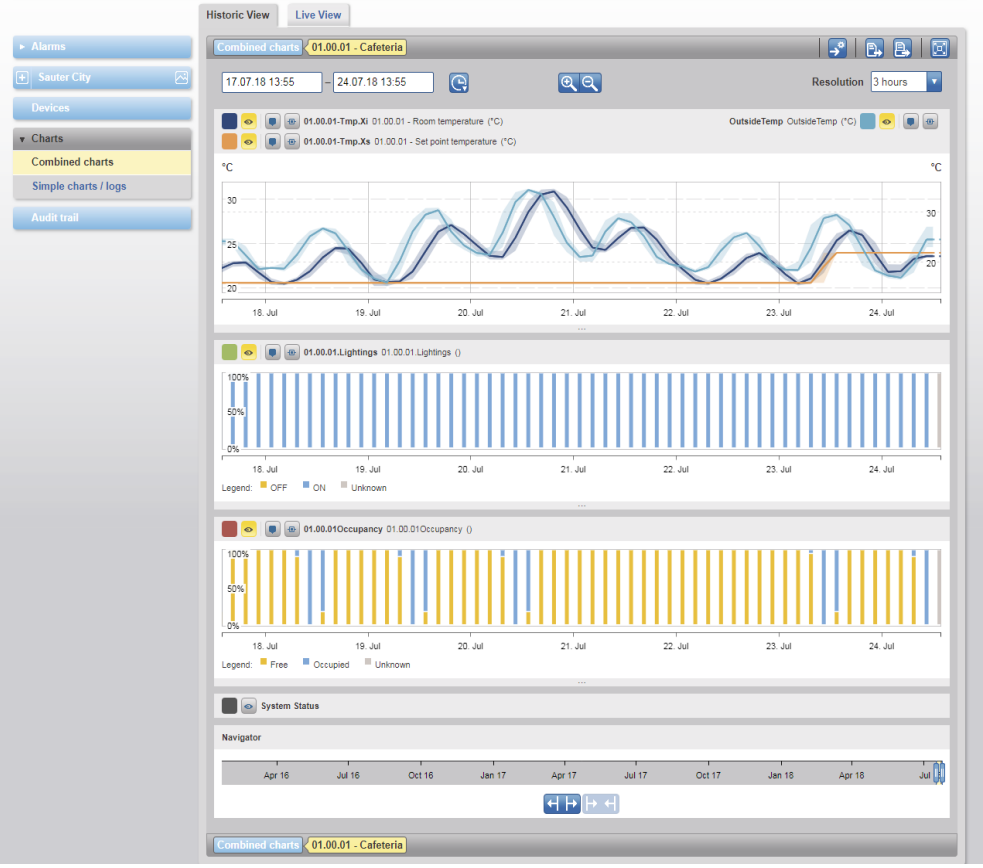



Fig. 38 Combined charts, several separate charts

## 10.3 Diagrams

Data points can be displayed individually in separate charts using panels. The panels have the following characteristics which can be adjusted:
Standard: Displays charts as a line graph or bar chart
Switch positions: 1 single data point in 1 panel, can also be displayed as a bar chart
Meter: optimised display for consumption meters
Data point: any colour can be selected from the colour palette

### 10.3.1 Standard (bar chart display)

Fig. 39 Standard diagram display

### 10.3.2 Switch positions (operating time)

Displays how long certain values (binary or multistate) were set during a specific period of time. The time period set in “Resolution” displays the duration of the relevant state as a percentage.
Example: The fifth column from the left shows that, between 3 p.m. and 6 p.m., level 3 was set for around 60% of the time, level 2 for 10% and level 1 for 30%.

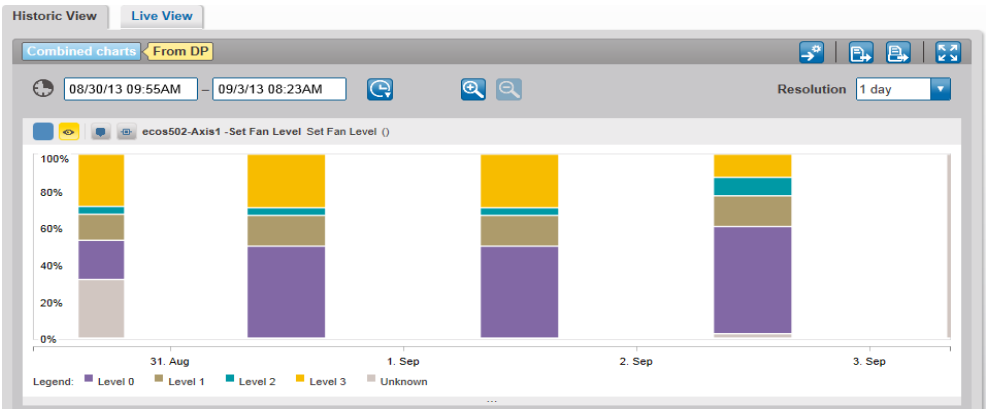



Fig. 40 Diagram of the switch positions

### 10.3.3 Meter charts

Clearer presentation for consumption meters.

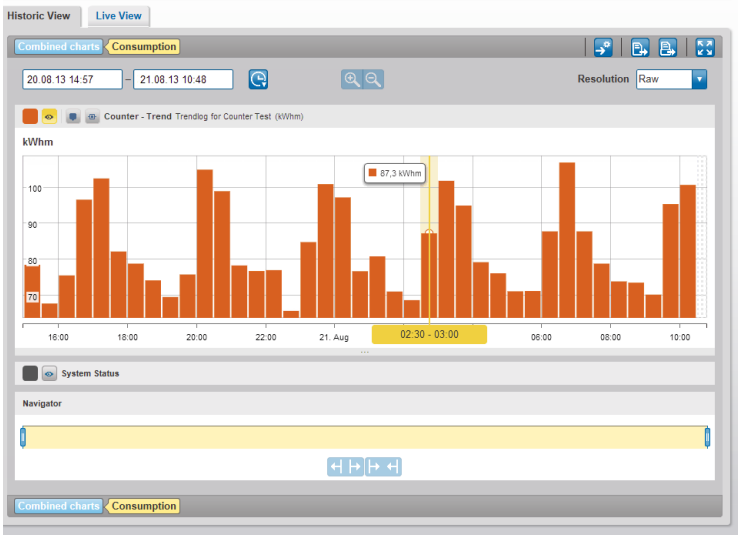



Fig. 41 Meter chart display

moduWeb Vision provides a display optimised for consumption meters, in which the difference between the meter reading at the start and end of the differentiation period is displayed. The differentiation period results from the chosen resolution.

### 10.3.4 Setting the Y-axis

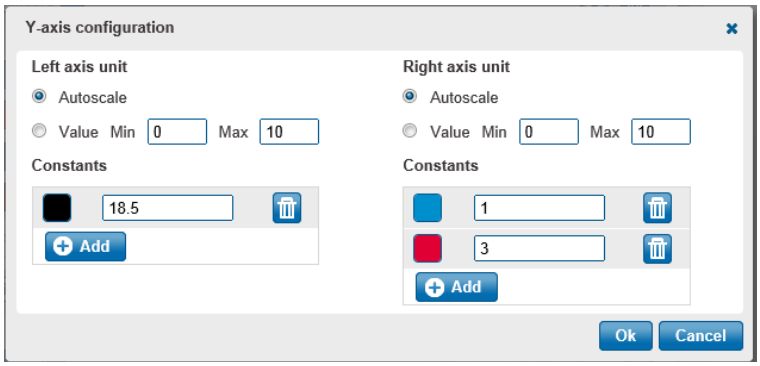



Fig. 42 Special Y-axis settings for the standard type

Clicking on the coloured square will open the colour palette. This can be used to set the line colour for individual data points in the diagram.

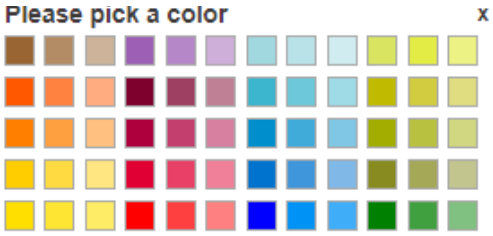



Fig. 43 Colour palette

# 11. Audit trail

This section describes the “Audit trail” area in the main “Info” menu.

The audit trail logs system user activity, such as login, changes to the current value of a data point and so on.

Click “Audit trail” in the menu tree in the main “Info” menu.

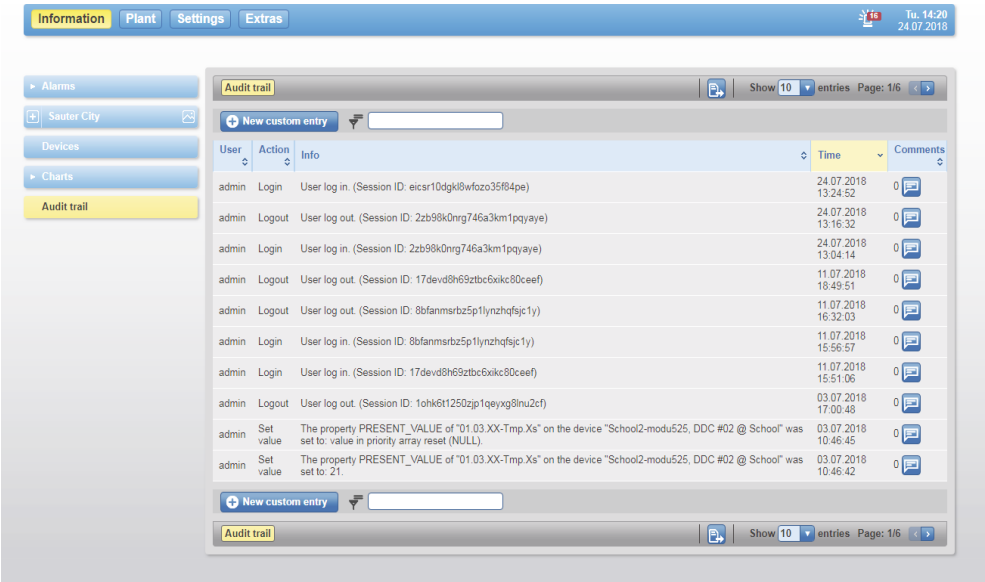



Fig. 44 Audit trail

The “User” column contains the name of the user who carried out the action.

The “Action” column contains a brief description of that action.

The “Info” column contains detailed information on the action.

The “Time” column contains the timestamp for the action.

The “Comments” column shows the number of comments submitted for the action. Click on the icon to see a pop-up window containing the comments. You can also enter a comment in this window and click “Add” to save it.

Click “New custom entry” to open a pop-up window where you can make a new entry and save it by clicking on “Add”.

Audit trail logs can be automatically sent to users; see section 18.3.

**Data export**

Using the icon, you can export the audit trail as a file in CSV format. This file can be displayed in a CSV-capable program (such as Microsoft Excel).

# 12. Scheduling

This section describes the “Scheduling functions” area under “Object settings” in the main “Plant” menu.

In this menu you can view and edit all the schedules stored on the BACnet devices registered in moduWeb Vision.

## 12.1 Schedules

The switching points for each day are defined in schedules. The switching points on normal days from Monday to Sunday are defined in the weekly schedule, while the switching points for non-standard periods are defined in the exception schedule.

Schedules can be applied to multiple data points of the same type. Data points can be added to or removed from a schedule.

Data can be exported from a schedule and copied to other schedules of the same kind.

In the main “Plant” menu, click “Object settings” and “Schedules” in the menu tree.

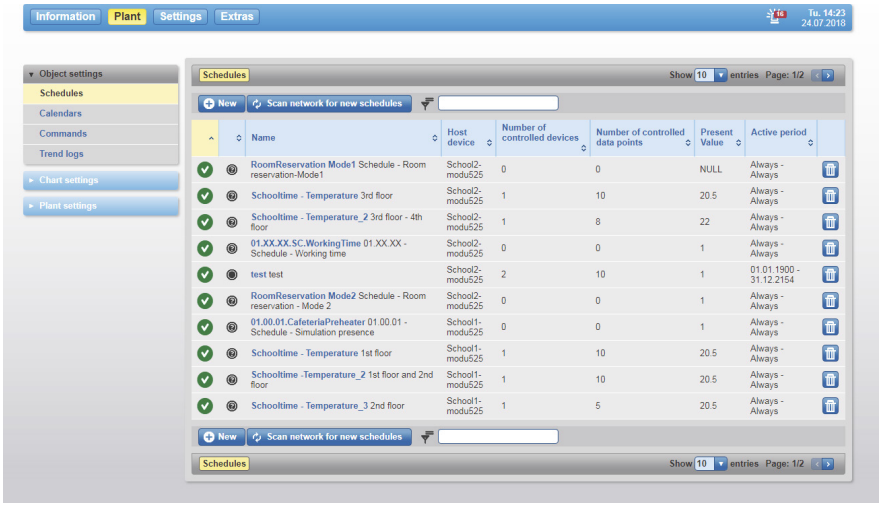



Fig. 45 Schedules, overview

The list contains status icons in the first column (for the meaning of the icons, see section 8), followed by the schedule name, the host, the number of controlled devices and data points, the current value and the active period.

### 12.1.1 Timetables and exception schedule

Click on the name of a schedule to view and edit it. A window containing details of the schedule opens and the “Timetables” tab is active. The view shows the normal weekday schedule, as well as any exception entries for the current week.

In this window you can also display the tabs “General” (see section 12.1.2.1), “Data points” (see section 12.1.2.2), “BACnet export” (see section 12.1.3) and “File import/export” (see 12.1.3.2).

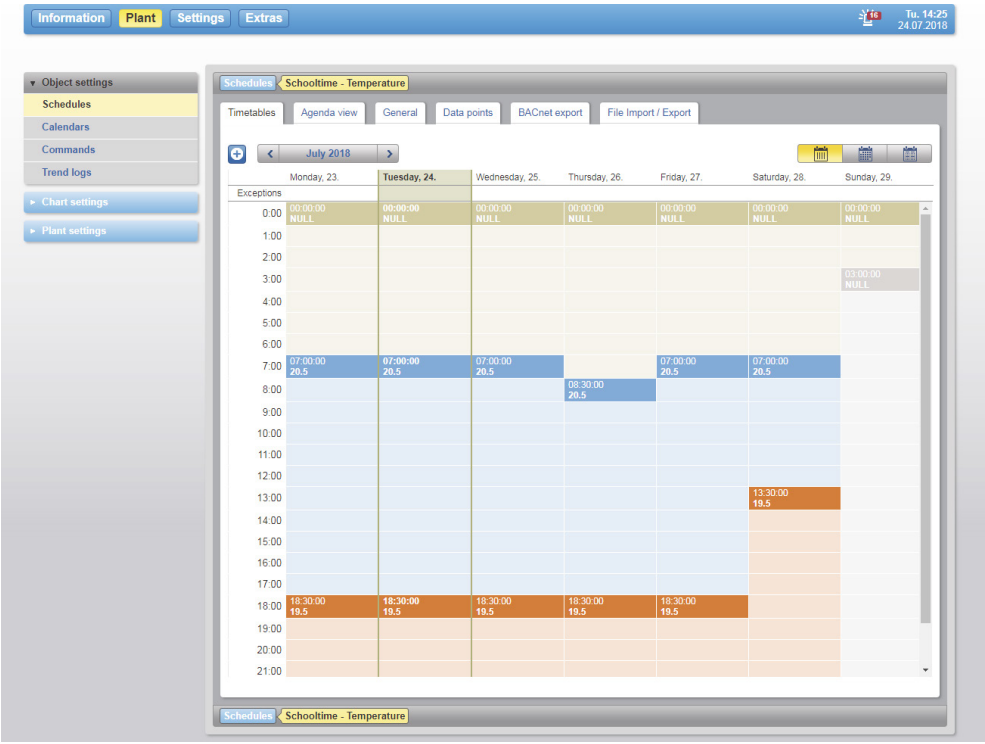



Fig. 46 Schedules, timetables

| | |
|---|---|
| ① | “New” button for creating a new timetable entry. |
| ② | Button for the weekly view |
| ③ | Button for the monthly view |
| ④ | Button for the yearly view |
| ⑤ | View area (weekly, monthly or yearly view) |

The view area can contain the following views:

- Yearly view: The year's calendar is displayed with the exceptions (indicated in colour). You click on a month to switch to the monthly view for that month.
- Monthly view: The schedule commands are displayed in colour. The vertical axis shows the switching time from 00:00 to 24:00 hours. The horizontal axis shows the days. An additional "Exceptions" line shows whether there are special commands on this day. You can click on a schedule command in order to edit it.
- Weekly view: A detailed view of the schedule commands is displayed here.

Schedule points already defined in the weekly and exception schedules are displayed.

A default value specified in the BACnet Device object is sent every day at midnight (00:00 hours). This schedule point cannot be deleted.
This command can be overwritten with a schedule command at 00:00 hours.
Commands are not automatically copied from one day of the week to the other in a schedule. If a day of the week ends with a set value (i.e. not the default), this value must be set again at the start of the next day (time 00h00m00s).

#### 12.1.1.1 Editing a timetable

**Creating a new switching point**

To create a new switching point, click on the appropriate position in the weekly schedule or on at the top left and then on "Schedule command".

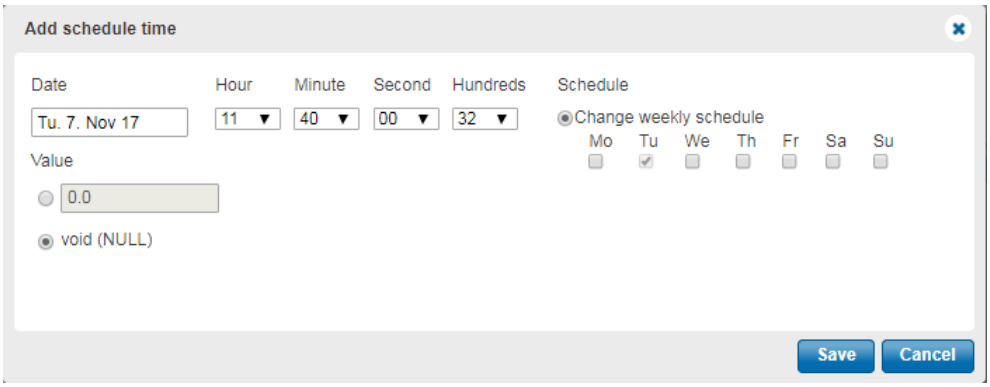



Fig. 47 Adding a schedule command

Select the date that you want under the "Date" field.
Set the time that you want using the "Hour", "Minute" and "Second" fields. If you require a schedule command for every hour, minute or second, select the value "Any".

If you want to add an additional weekday, you can do this using the menu item "Change weekly schedule".

When you have entered all of your settings, click "Save" to create the schedule command.

It is not permitted to change the data type if the data type has already been specified via referenced objects or the default value of the schedule.

If multiple data points are controlled via a schedule, in the case of a binary (multi-state) data point, the names of the switch positions of the first data point are used.

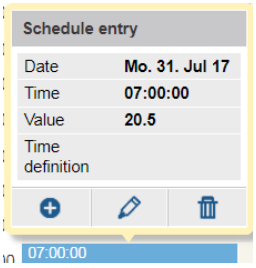



Fig. 48 Pop-up window for an existing schedule command

**Editing a switching point**

To edit a switching point, click on it and then click on the pen symbol in the pop-up window. The “Edit schedule command” dialogue opens. When you are finished, click on “Save” to apply the changes.

**Creating a new switching point using an existing one**

To create a new switching point and copy the data from an existing switching point, you proceed as follows:

Click on the existing switching point. A pop-up window opens (see Fig. 48). Click on the icon. The dialogue opens for defining the data of the switching point. When you have completed your changes, you use the “Save” button to save the switching point.

Only the date and the weekday(s) are copied for the selection. The value is not copied and must be adjusted if necessary.

**Deleting a switching point**

To delete an existing switching point, click it and then select the icon in the pop-up window.

The switching point is deleted immediately without any further dialogue.

### 12.1.1.2 Editing an exception schedule

To create a new exception, click on the appropriate position in the calendar or on at the top left. A new window opens.

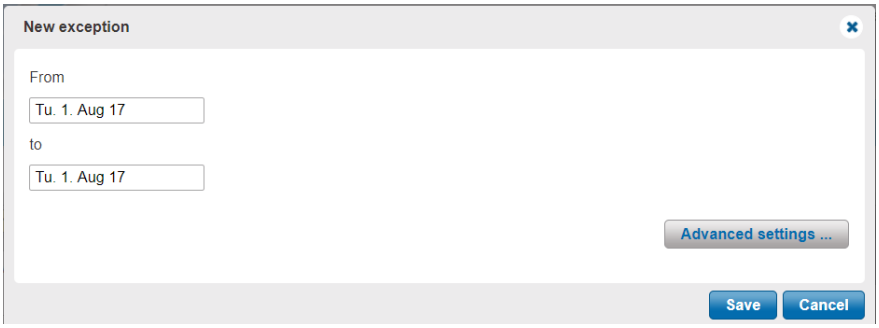



Fig. 49 New exception

An exception is generated as standard in the dialogue window. If you want to add multiple days, simply extend the date range.
Via “Advanced settings” you can make further detailed settings:

| Type | Values |
|---|---|
| Date | Day<br>• All<br>• Monday to Friday<br><br>Date<br>• All<br>• 1 to 31<br>• Last day<br>• Odd days<br>• Even days<br><br>Month<br>• All<br>• January to December<br>• Odd months<br>• Even months<br><br>Year<br>• All<br>• Current year to 10 years from now |
| Date range | • Date<br>If the function “Always” is set, the date is set for an unlimited period in the past or in the future. |
| Weekday | Day<br>• All<br>• Monday to Sunday<br><br>Week<br>• First, second, third, fourth, fifth or last week<br><br>Month<br>• All<br>• January to December<br>• Odd months<br>• Even months |

When you have entered all of your settings, click “Save” to create the exception. The exception is now displayed in the calendar in the “Exceptions” column.

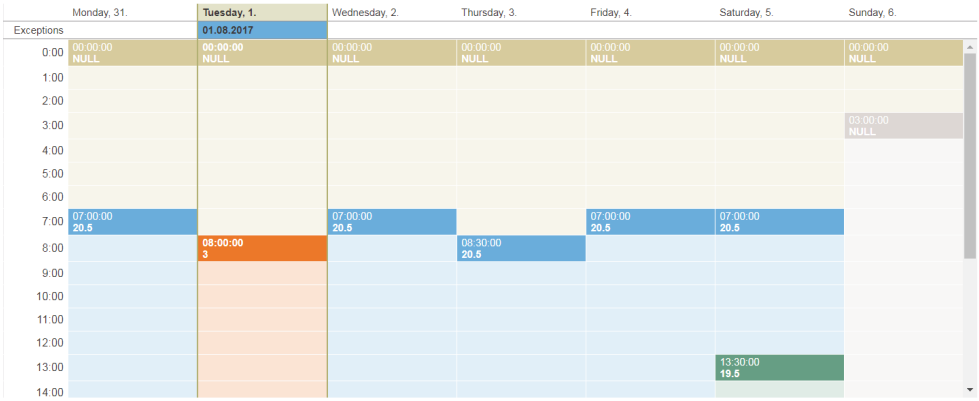



Fig. 50 Entry for an exception in the calendar of the schedule

In the timetable calendar, only the exception periods are indicated. Switching times and values must be defined separately for the exception, because the normal weekly schedule is overwritten by the exception on this day.
To add a schedule command, you click on the time at which you want to add the switching point. For the remaining steps, see section 12.1.1.1.

When you have added an exception to the calendar, you can make additional settings in the exception.
You can now assign a priority to the exception. Additionally, you can assign to the exception a reference to a calendar. This is especially useful if you want to use multiple exceptions for the normal weekly schedule.
To assign a calendar to the exception, click on the exception on a blue background in the schedule. Click on “Configuration” and then on the pen symbol. The edit dialogue opens. Under “Calendar reference” you can assign a calendar to the switching point. Under “Priority” you can change the priorities of the exception schedules.

Please note that the exception schedule with the highest priority is processed first. If two schedules have the same priority, the schedule that was created first is executed first. If this is the case, we recommend editing the exception schedules in the agenda view.

### 12.1.1.3 Agenda view

This view provides a separate view of the weekly and exception schedules. The “Weekly schedule” and “Exception schedule” buttons can be used to switch the view between the weekly schedule and the exception schedule.

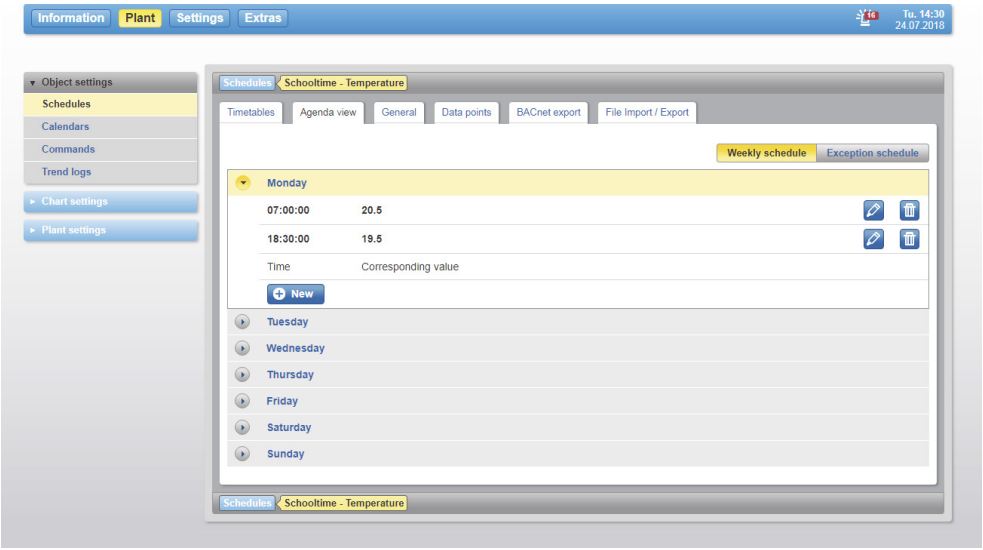



Fig. 51 Agenda view

**Weekly schedule**

For each weekday, schedule commands can be added with the New button as described in section 12.1.1.1. If you want to edit a schedule command, click on the button. If you want to delete a schedule command, click on the button.

**Exception schedule**

The button can be used to create new exceptions (see section 12.1.1.2). The various exceptions are listed and indicated in different colours. Existing exceptions can be edited with the icon or deleted with the icon.
Within the listing of an exception you can also add schedule commands directly using the New icon. For the add options, see section 12.1.1.1.

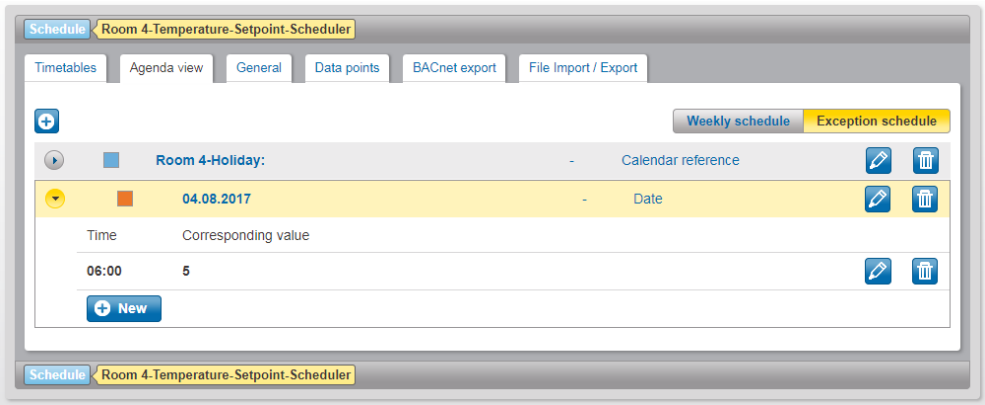



Fig. 52 Exceptions and schedule commands in the agenda view

### 12.1.2 Configuring timetables

Timetables are usually created and configured by the SAUTER project technician in the context of engineering.
In the operating phase, moduWeb Vision also offers the user the opportunity to create additional schedules in the automation station or to change the configuration of the schedules.

Please note that creation of schedules is not supported by all BACnet devices.

Schedules that you create in the automation stations during operation might be overwritten during the next download to the automation station.

#### 12.1.2.1 General information

Click on the “General” tab.

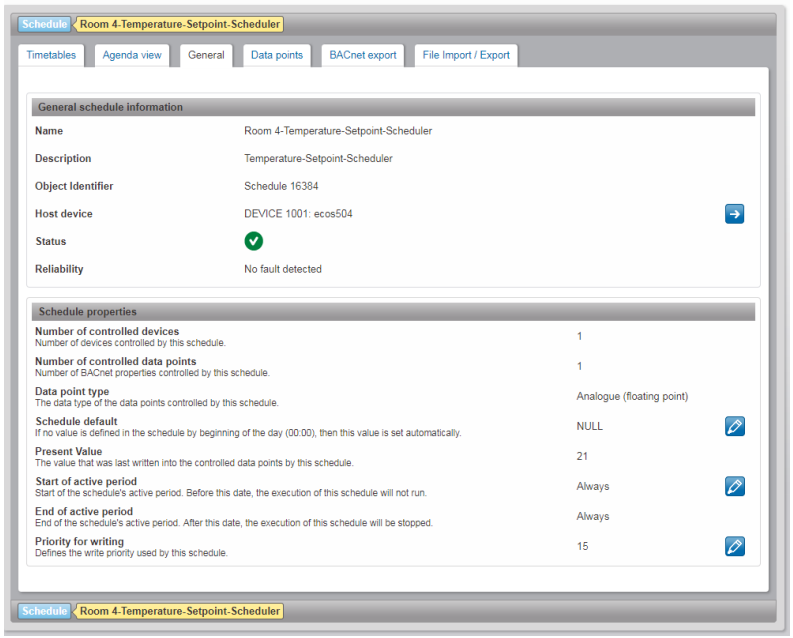



Fig. 53 Schedules, general

General information on the current schedule is shown here.

Values marked with the icon can be edited.

### 12.1.2.2 Adding and deleting data points

Schedules can be applied to multiple data points at the same time. The data points to be controlled by a schedule must all be of the same type. You can add data points to or remove them from a schedule in this window.

Click the “Data points” tab.

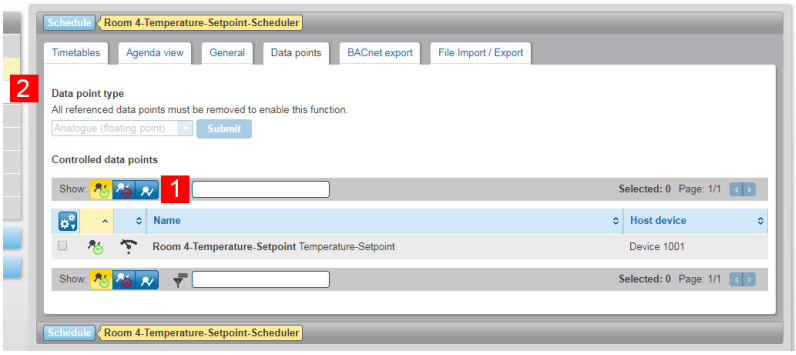



Fig. 54 Schedules, data points

You can use the icons (1) to choose which data points are displayed.

| | |
|---|---|
| | Only data points that are in the schedule |
| | Only data points that are not in the schedule |
| | All data points |

**Data point type**

You can select the data point type using the drop-down menu (2).
Because a schedule can only contain data points of the same type, the choice is not offered if the schedule already contains a data point. If you want to change the type of data point, you must first delete the data points that are already in the schedule.

Select the checkboxes at the beginning of the lines containing the data points.

Instead of selecting them manually, you can use the icon and the options “All”, “All on page”, “None” or “None on page” to select or deselect all the data points at once.

For third-party devices that do not allow or support the entering of object references, the data type must be specified first. This is done by setting the standard value on the “General” tab. Afterwards, schedule commands can be created in the schedule or in the agenda view. See section 12.1.2.1.

The icon can also be used to select the functions “Add to schedule” or “Remove from schedule”.

### 12.1.2.3 Creating a schedule

In the main “Plant” menu, click “Object settings” and then “Schedules” in the menu tree.
The “New” button will take you from the main scheduling view to the wizard that helps you create a new schedule.

1. First select the automation station in which the schedule is to be created and then press “Next”
2. Give the schedule a name and optionally a description. “Create” creates a blank schedule in the station. The schedule now needs to be configured. See (“12.1.2.1 General information”) and (“12.1.2.2 Adding or removing data points”).

## 12.1.3 Exporting schedules

You save a lot of work by using a schedule that has already been configured in other schedules. The prerequisite for this is that
all schedules control objects of the same type.
Within your moduWeb Vision project, the settings of a schedule can be copied directly to other schedules.
You can also save the settings to a file for use at a later time or in another plant.

### 12.1.3.1 Copying schedules within the project

Data from one schedule can be exported to other schedules of the same type in the system. You can also choose which properties are exported.
Click the “BACnet export” tab.

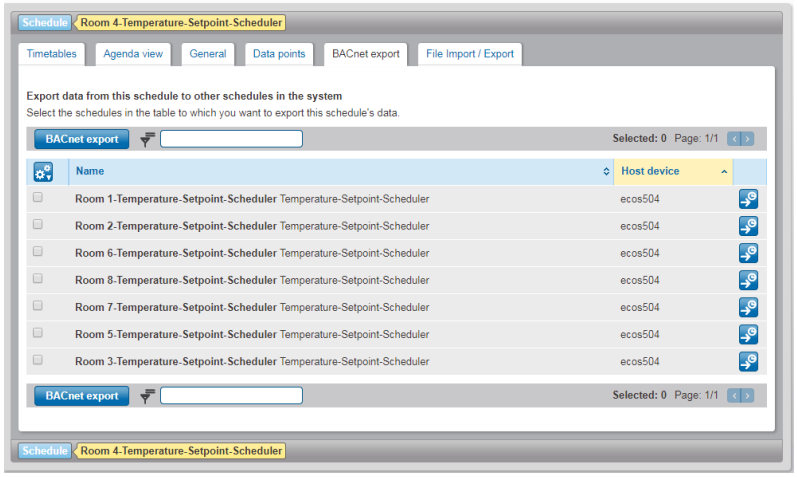



Fig. 55 Schedules, export

The list shows the schedules to which data from the current schedule can be exported. The data that is already in them will be overwritten.

Select the checkboxes at the beginning of the lines containing the data points.

Instead of selecting them manually, you can use the icon and the options “All”, “All on page”, “None” or “None on page” to select or deselect all the data points at once.
After making a selection, click on “BACnet export”. Or select this function using the icon.
You can select the properties to be exported in the pop-up window that then appears. The following options are available:

- Weekly schedule
- Exception schedule (excluding calendar references)
- Active period
- Schedule default value
- Write priority

Select the properties you want and click “BACnet export” to export them.

### 12.1.3.2 Exporting a schedule as a file

Open the “File import/export” tab. After pressing the “Export” button, specify a name and description for this file. The name and description of the file is displayed in the subsequent import. Pressing “Export” again causes the download manager of your web browser to be opened.
Select the storage location and the file name to be used.

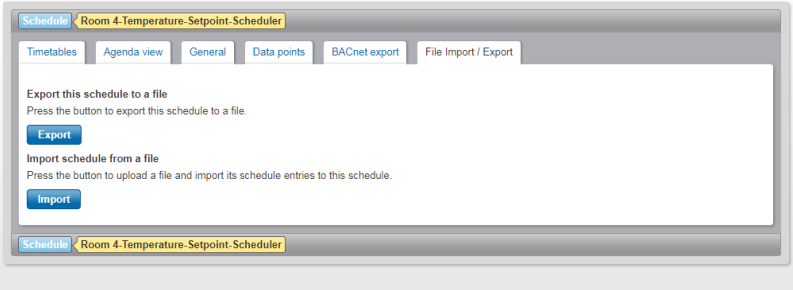



Fig. 56 Importing/exporting schedules

### 12.1.3.3 Importing a schedule from a file

Start the File Import Wizard with the “Import” button. The upload manager of your web browser opens. Navigate to the storage location and select a file. You can select the properties to be imported in the pop-up window that then appears.
The following options are available:

- Schedule active period
- Write priority
- Schedule default value
- Weekly schedule
- Exception schedule (excluding calendar references)

Select the properties that you want and click “Next” to complete the import.

## 12.2 Calendar

Similar exception periods such as public holidays, company holidays and extended opening hours are defined in a calendar.
The calendar can then be used as a reference for an exception period in an exception schedule.

In the main “Plant” menu, click “Object settings” and “Calendars”.

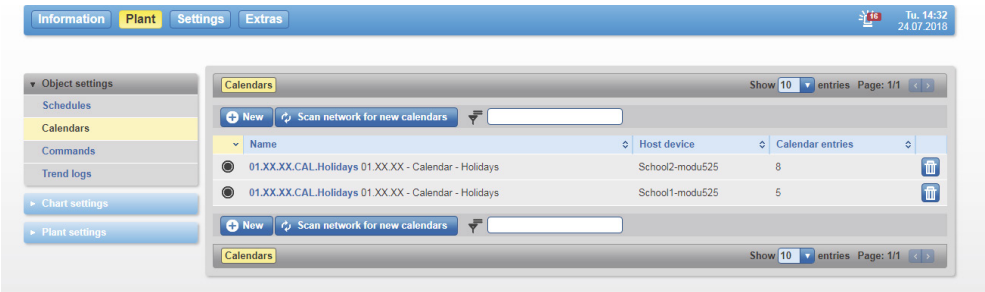



Fig. 57 Calendar, overview

The list contains a status icon in the first column, followed by the columns with the name of the calendar, the host and the number of calendar entries.

### 12.2.1 Editing the calendar in the Calendar view

Click on the name of a calendar to view and edit it. A window containing details of the calendar opens, and the “Calendar view” tab is active.

In this window you can also see the tabs “Agenda view” (see section 12.2.2) and “BACnet export” (see section 12.2.4).

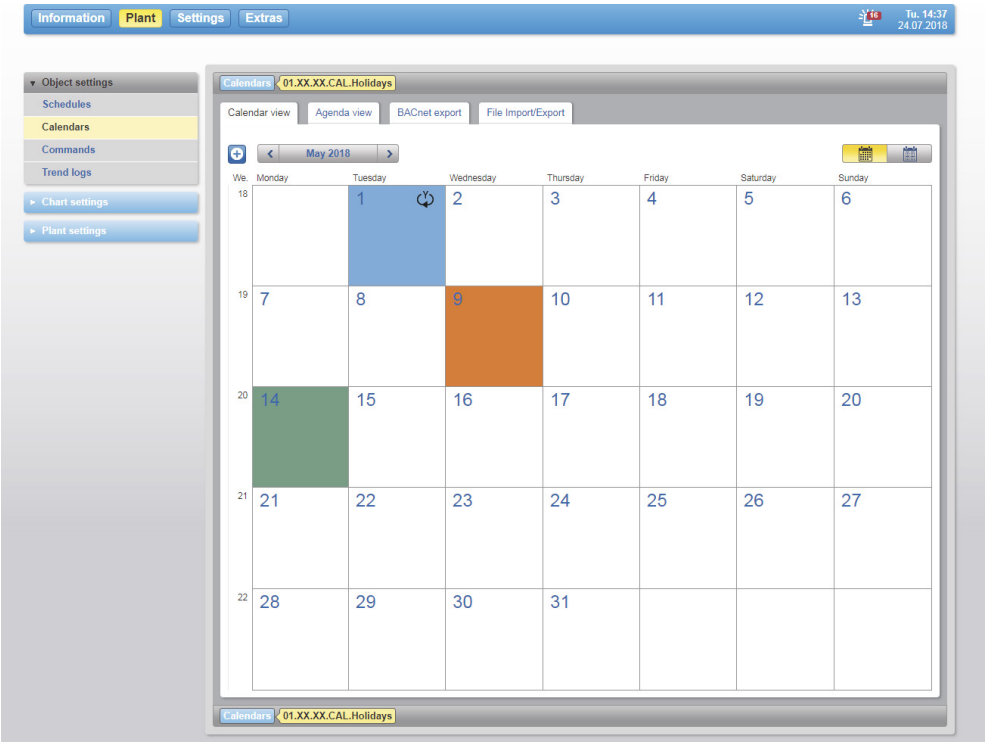



Fig. 58 Calendar, calendar view

The current year's calendar is displayed, with any defined entries already in it highlighted. The colour denotes the type of calendar entry and icons indicate the repetition.
In this view the user can choose between the monthly and yearly views. When you click on a month, the corresponding monthly view is displayed.

**Creating a new calendar entry**
To create a new calendar entry, click on the button, or in the monthly view on the position that you want in the calendar. A pop-up window appears at the cursor position. The calendar entry is predefined according to the cursor position. Regardless of this, you can create a calendar entry for any date.

First select the type of calendar entry from the "Type" list. The following options are available:
- Date
- Date range
- Weekday

Then specify the repetition, time definition and period of validity. The options for these items differ according to the type of calendar entry.

Finally, click "Save" to create the new calendar entry.

**Editing a calendar entry**
To edit a calendar entry, click it and change the specifications in the pop-up window. At the end, click "Save" to apply the changes.

**Deleting a calendar entry**
To delete an existing calendar entry, click it and then click "Delete" in the pop-up window.

You can also edit or delete calendar entries in the "Agenda view" tab as described in the following section.

### 12.2.2 Editing the calendar in the Agenda view

Click on the “Agenda view” tab.

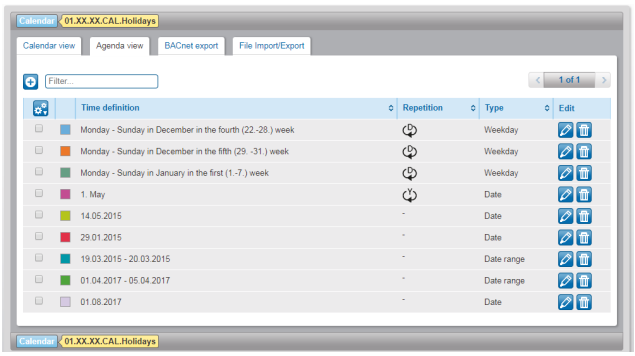



Fig. 59 Calendar, agenda view

The entries in the calendar are shown in an agenda view here.
You can edit the entries after clicking on the icon.
Click on the icon to delete entries from the calendar.

### 12.2.3 Creating a calendar

In the main “Plant” menu, click “Object settings” and “Calendar”.
The “New” button takes you to the wizard that helps you create a new calendar.

1. First select the automation station in which the calendar is to be created and then press “Next”.
2. Give the calendar a name and optionally a description.
   “Create” now creates a blank calendar in the station. The calendar now needs to be configured. See (12.2.1 Editing a calendar in the Calendar view) and (12.2.2 Editing a calendar in the Agenda view).

### 12.2.4 Exporting a calendar

You can save a lot of work by copying the date list of a calendar from a previously created list of another calendar.
Within your moduWeb Vision project, you can copy the date lists of a calendar to another calendar.
You can also save the content of the calendar to a file for use at a later time or in another plant.

### 12.2.4.1 Copying a calendar within the project

Click the “BACnet export” tab.

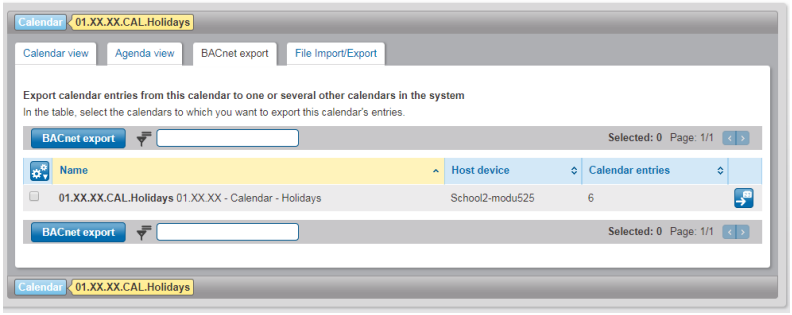



Fig. 60 Calendar, export

The list shows the calendars to which entries from the current calendar can be exported. The entries that are already in them will be overwritten.
Select the checkboxes at the beginning of the lines containing the required calendars.

Instead of selecting them manually, you can use the icon and the options “All”, “All on page”, “None” or “None on page” to select or deselect all the data points at once.
After making a selection, click “Export”. Or select this function using the icon. Select the entries that you want, confirm the warning regarding overwriting and click “Export” to export them.

### 12.2.4.2 Exporting a calendar as a file

Open the “Import/export file” tab. Press the “Export” button. Specify a name and a description. The name and description of the file is displayed in the subsequent import. Pressing the “Export” button again opens the download manager of your web browser. Select the storage location and the file name to be used.

### 12.2.4.3 Importing a calendar as a file

Start the File Import Wizard with the “Import” button. The upload manager of your web browser opens. Navigate to the storage location. Select a file and complete the process by pressing “Next”.

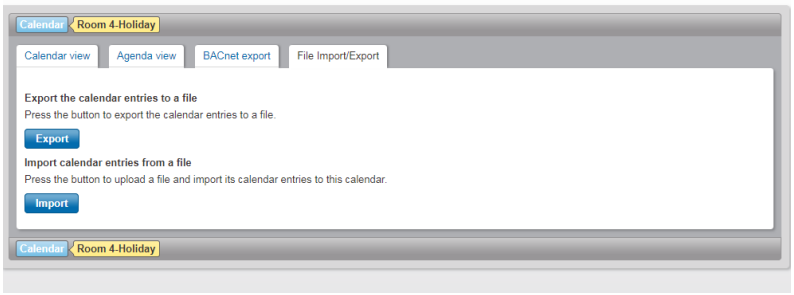



Fig. 61 Importing/exporting a calendar

# 13. Commands

A command object is used to apply write commands that are grouped into lists to different objects. A command object can contain a number of such lists. The write commands in a list are executed by simply selecting the list ID.
Command objects are stored in the stations. They can be created, deleted or edited in this interface.

In the main “Plant” menu, click “Object settings” and then “Commands”.

## 13.1 Creating a command object

To add a new command object to the list, press the “+ New” button.

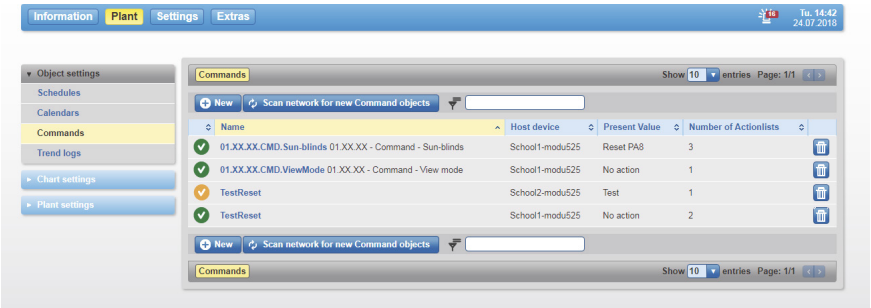



Fig. 62 List of command objects in the different stations

Select the station for which you want to create the command object.

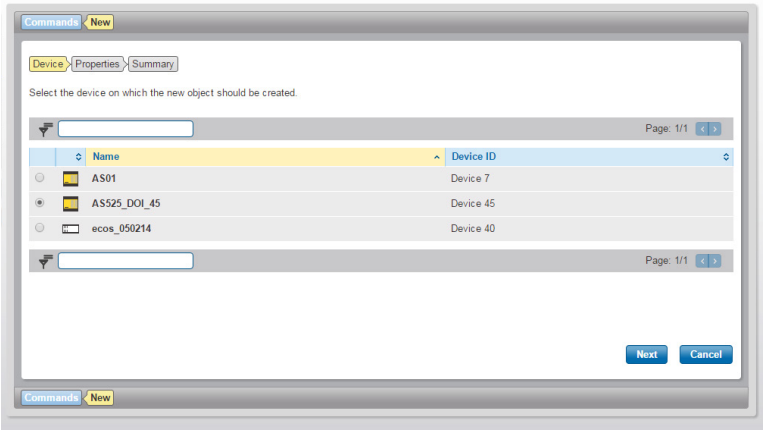



Fig. 63 Selecting the station for a command object

Press the “Next” button.
Give the object a name and a short description.
Press the “Next” button again.

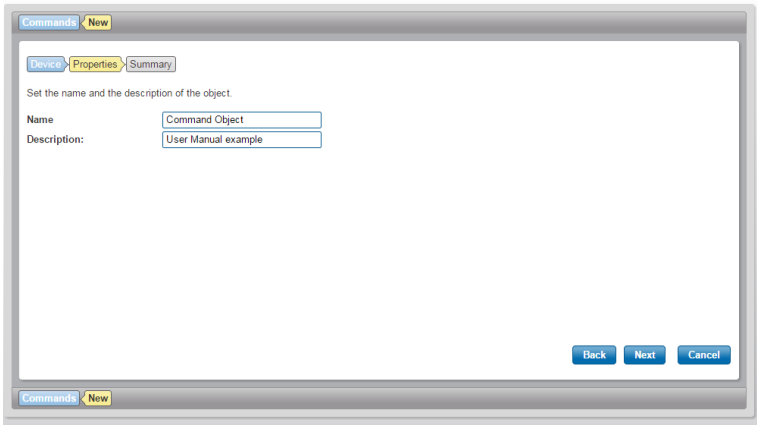



Fig. 64 Object name and description

Click the “Create” button to complete the creation of the object.

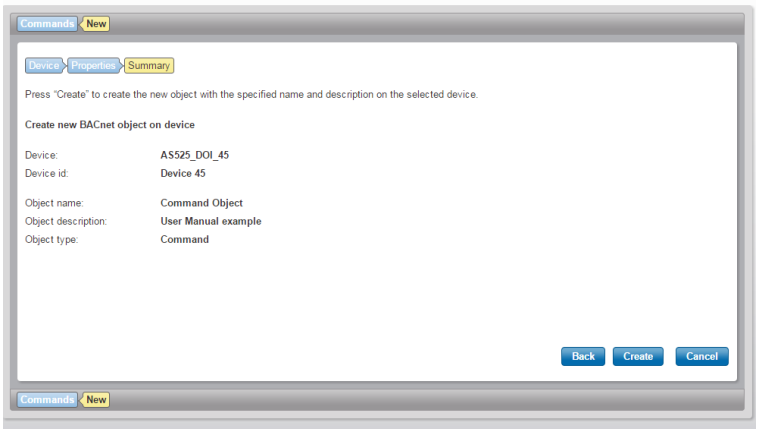



Fig. 65 Completing creation of command object

The command object is created and will be displayed in the object list.

The creation of action lists is described in the next section.

## 13.2 Editing a command object

1. Click on the name of the command object that you want to edit. The current action lists are displayed on the “Action lists editor” tab.

### Action lists

2. Click on the “+ New” button to create a new action list.
A dialogue box opens.
3. Give the action list a name.

| | |
|---|---|
| | To rename an action list, click on the “Edit” button. |
| | To delete an action list, click on the “Delete” button. |
| | To add or remove an action list, click on the “More” button. Select an action from the menu that opens. |

### Commands

4. To be able to display and edit the commands in an action list, click on the name of the list.

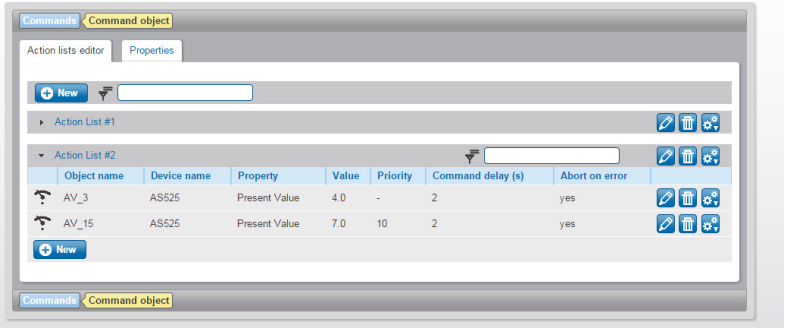



Fig. 66 Action list with command (write command to a data point)

| | |
|---|---|
| | To rename a command, click on the “Edit” button. |
| | To delete a command, click on the “Delete” button. |
| | To delete or add a command, click on the “More” button. Select a command from the menu that opens. |

5. To edit a command, click on the name of the command.
6. To add a new command, click on the “+ New” button within the command list. A dialogue box opens.
7. Select a target object for the new command.

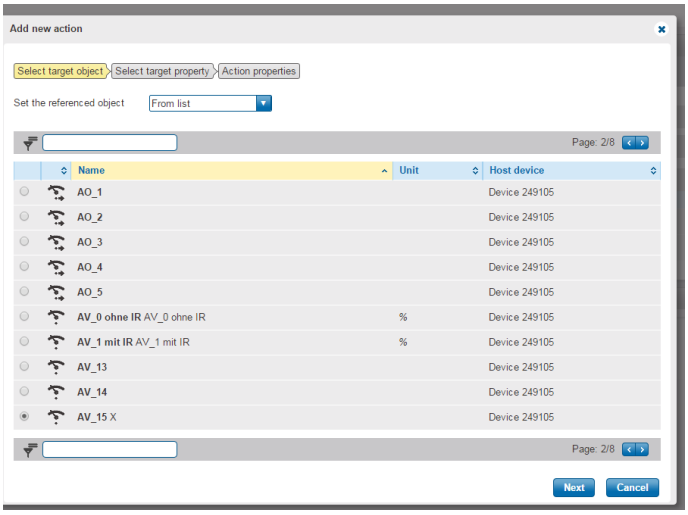



Fig. 67 Selecting target object

8. After selecting the target object, click on the “Next” button.

You can define write commands in a command object, which are executed on data points of other stations. The addressed station must support these commands.

9. In the window “Select target property”, you define the properties of the target object in the “Property” selection window.
10. Confirm your entry with the “Next” button.

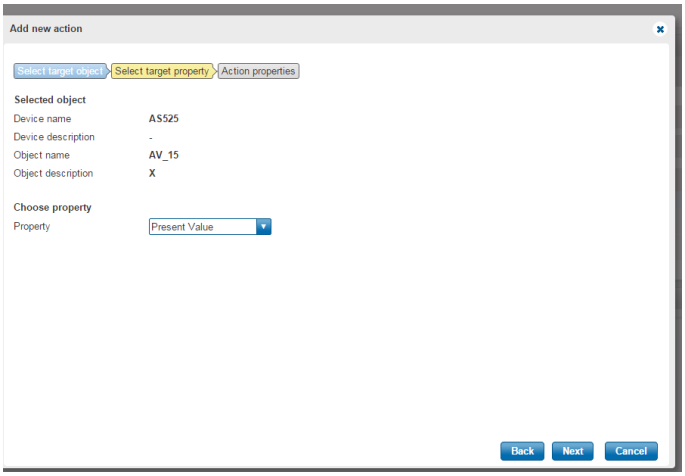



Fig. 68 Defining target property (BACnet property) for commands

Only writing to a Present Value is permitted.

11. To complete the process, the following values must be defined:
- Enter new value for Present Value
- Define the priority of the write command (1...16 BACnet priority)
- Define the time delay between an executed command and the next command to be executed
- Activate the checkbox “Abort on error” to abort all other commands when an error occurs.

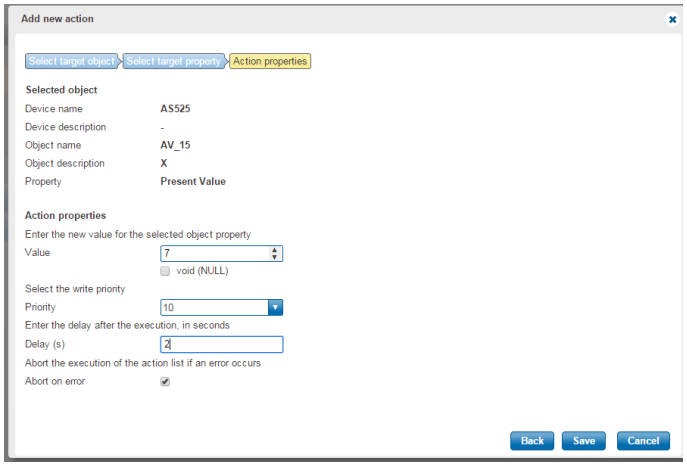



Fig. 69 Defining command properties

12. Confirm the entries by clicking the “Save” button. The command is saved in the target station.

# 14. Trend Logs

In the main “Plant” menu, click “Object settings” and then “Trend logs”.

In a Trend Log, the current values are regularly exported to the station from the object buffer and logged.

## 14.1 Trend Logs overview

This displays all of the existing Trend objects in the system. In the list view, new Trend Logs can be created or existing ones deleted.
Click on the icon “Scan network for new Trend logs” to search the network for existing Trend Logs. These will then be added to the list view if they are not already listed.

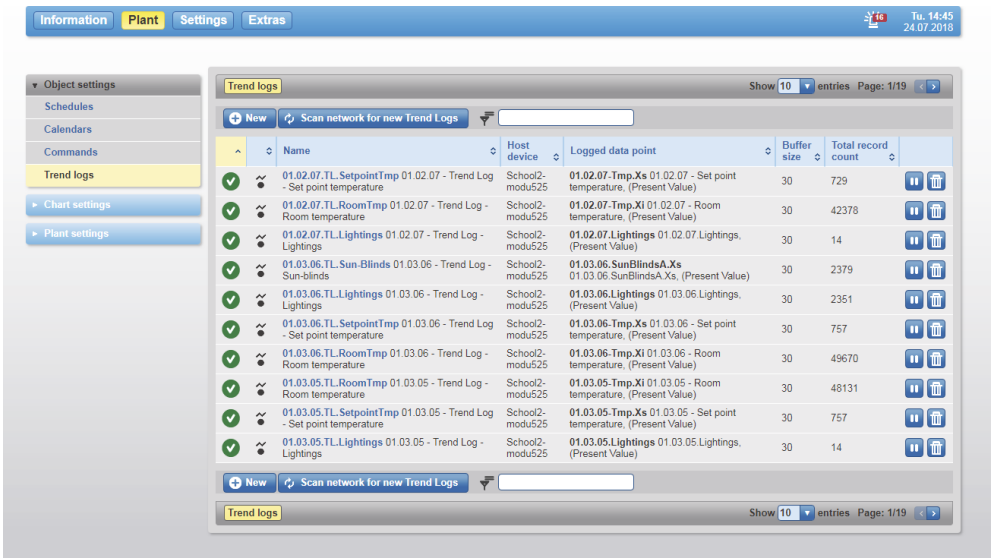



Fig. 70 BACnet Trend Logs, overview

## 14.2 Trend Logs graphical view

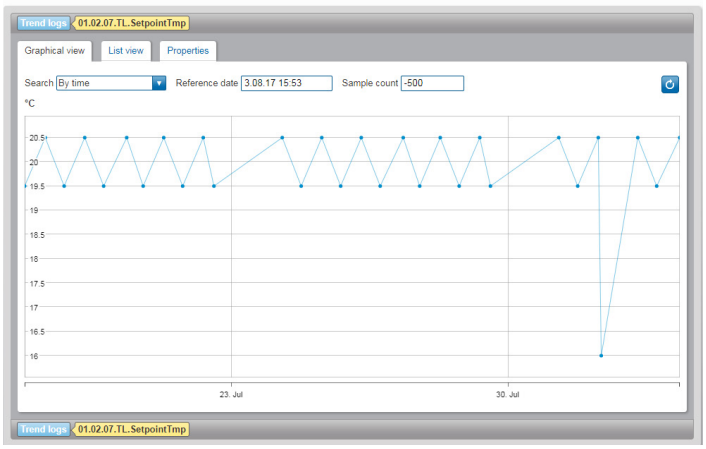



Fig. 71 BACnet Trend Logs, graphical view

In the graphical view, you can set the time period to be displayed and the number of preceding values (“-500” shows the preceding 500 values from the selected date).

## 14.3 Deleting Trend Logs

Click on the icon to remove existing Trend Logs from the system.

## 14.4 Starting/pausing/resuming Trend Logs

Click on the icon to pause the logging of a Trend Log object and click on the to resume it again or start it.

## 14.5 Trend Log properties

This view shows all properties of the BACnet object.

Here the following points can be checked, for example:

- Activation of the logging
- Size of the buffer
- Configuration of the circular buffer mode

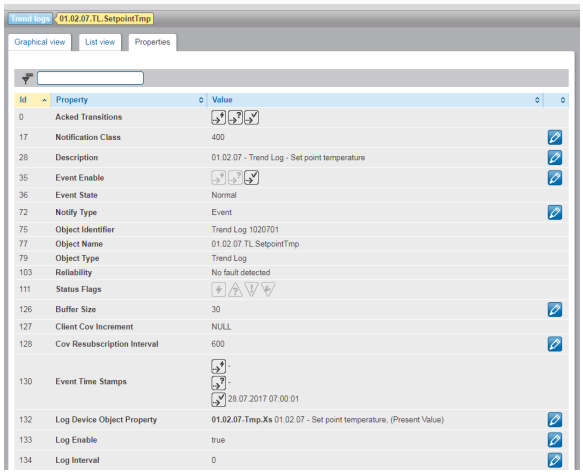



Fig. 72 Trend Logs, properties

## 14.6 Creating Trend Logs

The “New” button takes you to a wizard to help you create a new Trend Log.

1. Click “New” to create a new Trend Log object.
2. First select the device where the new Trend Log object is to be created and confirm with “Next”.

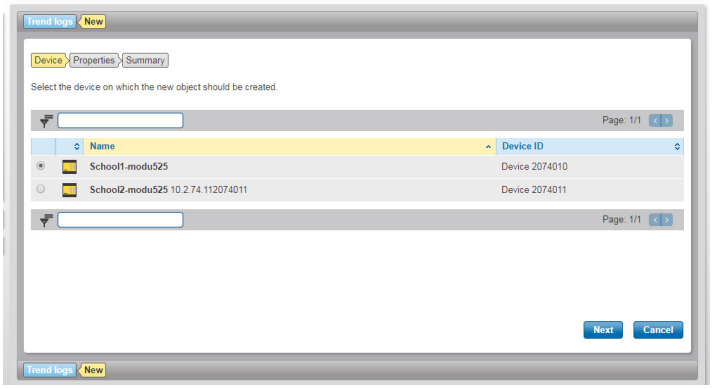



Fig. 73 BACnet Trend Logs, new, device

3. Give the Trend Log a name and, optionally, a description. Confirm again by clicking “Next”.

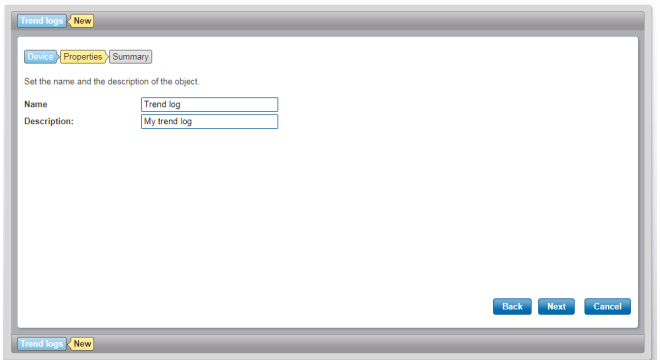



Fig. 74 BACnet Trend Logs, new, properties

4. An overview with a summary of the settings now appears. Click “Create” to create a new Trend Log object in the station. The object properties now appear. These must be configured.

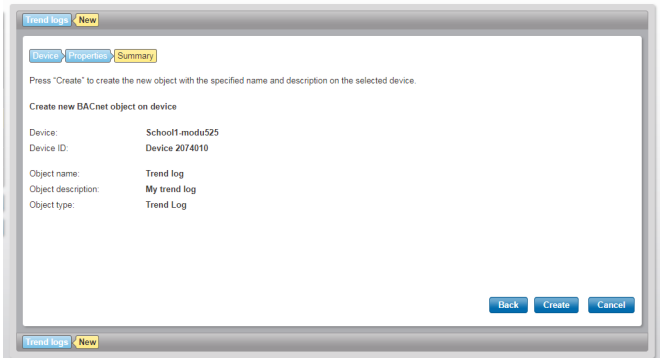



Fig. 75 BACnet Trend Logs, new, summary must now be configured.

5. After creation, a dialogue appears with the list of all registered data points that can be selected as the source of the Trend Log.

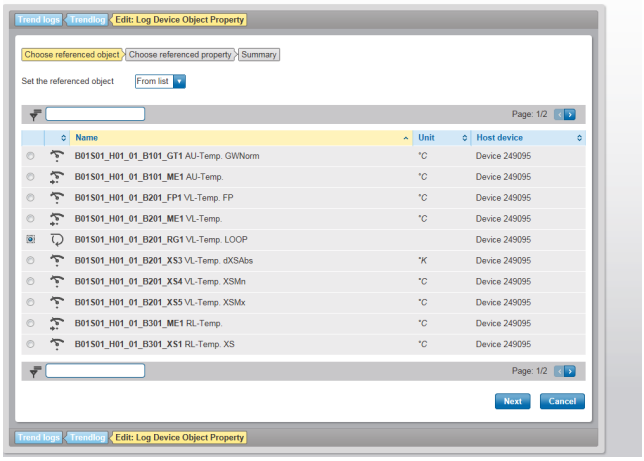



Fig. 76 List of all registered data points

6. Select the property of the desired data point for recording.

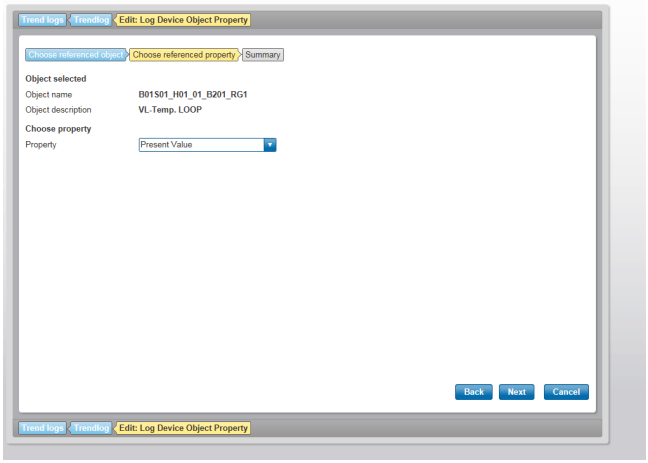



Fig. 77 Property of the data point that you want

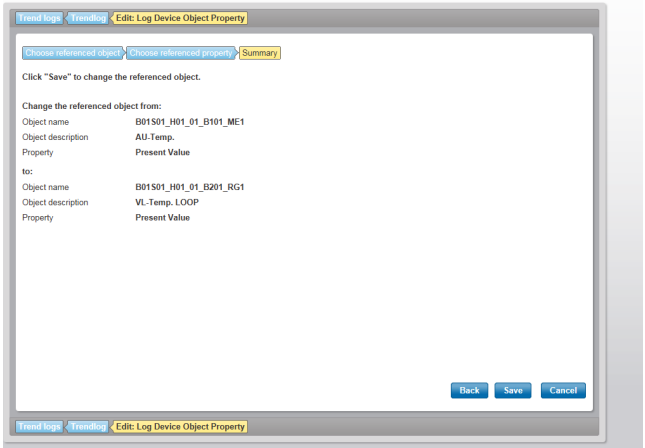



Fig. 78 Summary of settings of the datapoint

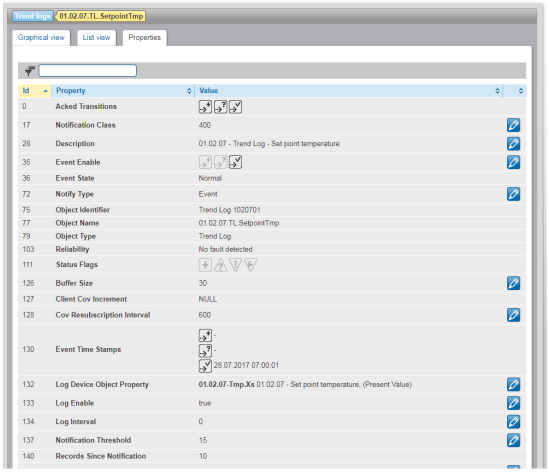



Fig. 79 BACnet Trend Logs, new, Trend Log properties

# 15. Chart settings

This section describes the “Chart settings” area in the main “Plant” menu.

The “Chart settings” menu is where you configure the data point logs that are displayed under “Charts” in the main “Info” menu (see section 10).

There is a distinction between the following:

- Simple charts (“Simple charts / logs” menu)
- Combined charts (“Combined charts” menu)

Simple charts graphically display a logged data point without the user having to make any other settings.

Combined charts can show up to six simple data points in a single chart at the same time. This makes the charts clearer to read and easier to compare.

If no SD card is installed, no data points will be recorded and no log data will be available to be displayed in the charts.

## 15.1 Simple charts / logs

In the main “Plant” menu, click “Chart settings” in the menu tree and then “Simple charts / Logs”.

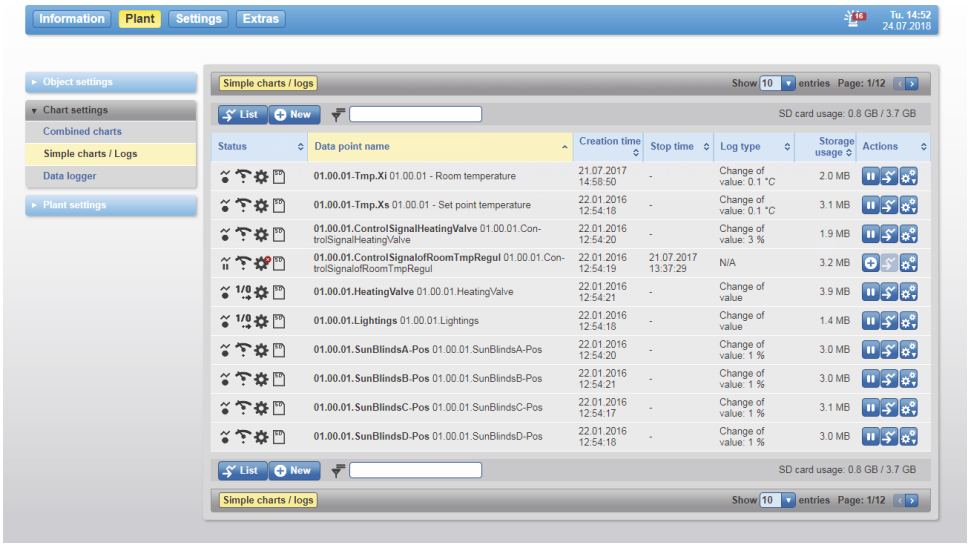



Fig. 80 Simple charts / logs, overview

An overview of all the data point logs in the system is displayed here. Logs with missing log configurations are also displayed, as are those whose data point is no longer in the system.
Information on the logged data point is displayed, such as the current status, data point name, creation time (start of logging), stop time (for logs that are currently no longer recorded), log type and memory utilisation.
You can carry out various actions with the icons in the last column.

In the “Status” column, the and icons indicate whether the data log is active or paused. The icon indicates that a data log exists on the SD card. The meaning of other icons is explained in section 7.1.

Using “List” to the left above and below the table, you can switch to the list, from which the charts can be viewed.

Using the icon in the last column of an entry, you can switch to the view of the corresponding chart; see section 10.

To the upper right of the list you can see information such as the total memory required by the logs and how much memory is available on the SD card.

**Creating a new simple chart / data point log**
Click “New”. The “Log type” window appears.

In this window you must choose a log type from the list:

- Polling (cyclical queries): The station is queried at specified intervals (“Refresh rate”) for the current value for this data point. If you select “Polling”, you must also specify the refresh rate.

or

- COV (change of values): A value is logged when it changes.
- Trend Logs: The current values are regularly exported to the station from the object buffer and logged.

Then click on “Next”. The “Select data points” window appears.

A list of all the data points in the system appears. You must select the required data points. To do this, select the checkboxes at the start of the line.

Instead of selecting them manually, you can use the icon and the options “All”, “All on page”, “None” or “None on page” to select or deselect all the data points at once.
Then click on “Next”. A summary of all the settings that have been made appears.

Click “Save” to create a new chart or log for each of the selected data points.

**Changing a data point**
You can use this action to change the data point. Click on the icon in the appropriate line and select “Change data point”. Select the new data point in the window that appears and then click “Save” to execute the action.

When you change the data point, the logs of the previous data point are not deleted, but instead continued with information from the new data point. You might need to do this, for example, when you want to continue logging a data point although it has been moved from one device to another.

You can also add a new data point to the system. To do this, go to the “Device registration” (see section 16) or “Plant structure editor” menu (see section 17).

**Changing the log type**
You can use this action to change the log type. Click on the icon in the appropriate line and select “Change log type”. Select the new log type and refresh rate in the pop-up window and click “OK” to execute the action.

**Resetting a log**
This action permanently deletes the previous log of the data point. However, the log configuration is not lost, and it recommences immediately.
Click the icon on the appropriate line and select “Reset”. The action is executed after you respond to a confirmation prompt.

**Deleting a simple chart / data point log**
This action deletes the log of the data point as well as the log configuration. Click the icon on the appropriate line and select “Delete”. The action is executed after you respond to a confirmation prompt.

**Pausing/resuming logging**
You can pause the logging of a data point by clicking on the icon in the appropriate line.
The symbol changes to .
Click on the icon to resume the logging.

**CSV export**
The action exports the values of the log. Click on the icon in the appropriate line and select “CSV export”. You can select the period of time and the resolution in a pop-up window.

**Creating a new configuration for a data point log**
If there is no diagram configuration for a data point, you can create a new one by clicking on the icon. A pop-up window appears in which you can select the new log type and refresh rate. Click “OK” to execute the action.

## 15.2 Combined charts

In the main “Plant” menu, click “Chart settings” in the menu tree and then “Combined charts”.

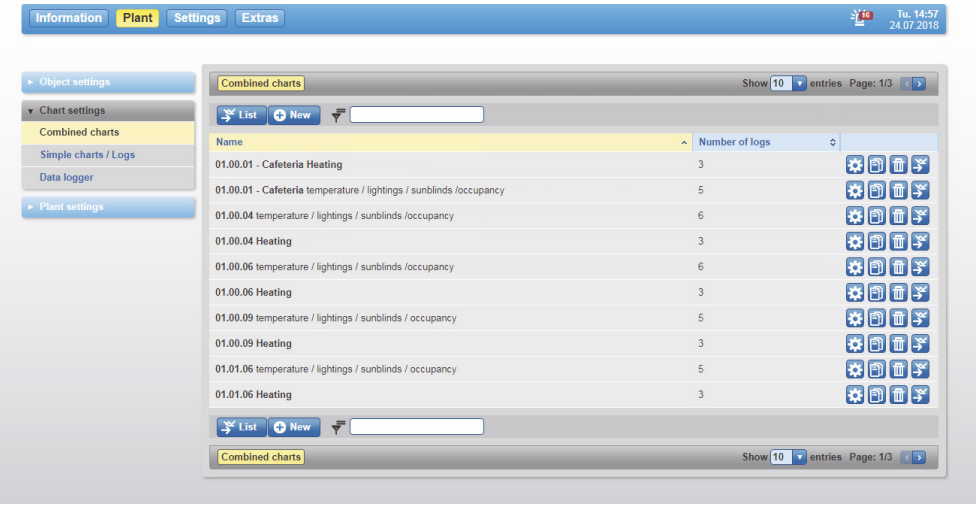



Fig. 81 Combined charts, overview

An overview of all the combined charts in the system can be found here. You can find information on the recorded charts such as the diagram name and the data point logs it contains.
You can carry out various actions with the icons in the last column.

Using “List” to the left above and below the table, you can switch to the list, from which the charts can be viewed.

Using the icon in the last column of an entry, you can switch to the view of the corresponding chart; see section 10.

### Creating a new combined chart

Click “New”. The window for creating new combined charts appears.

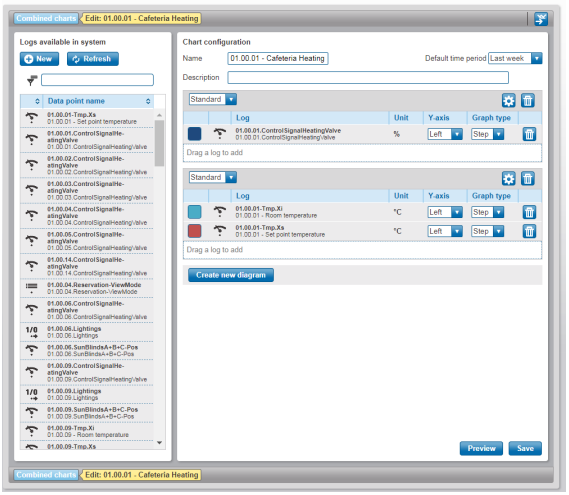



Fig. 82 Combined charts, creation

The window consists of two parts:

- The left part “Logs available in system” lists all the existing charts and logs in the system (see previous section).
- The right part “Chart configuration” is where you configure the combined chart.

Click “New” in the “Logs available in system” section to create a new simple chart directly.
Click “Refresh” in the “Logs available in system” section to update the list of simple charts and logs in the system. This function is useful when a new simple chart is to be created in a separate window, for example.

You need to enter a name and a description for the new combined chart in the “Chart configuration” section.
In addition, the “standard time window” is adjustable in this area.

With combined charts, up to six data points can be shown at the same time. Within a combined chart, the data points in separate charts can be put together.

The “Create new diagram” button allows you to add additional charts. You can remove them using the button.
On the top left, you can set the type of chart. If you change the type, the settings will be deleted.
Three types of charts are possible:

- Standard: Classic line charts of different data points of all types.
- Discrete: Standardised columns for a single data point of type binary or multi-state. Periodic consolidation in accordance with resolution setting.
- Meters: Periodic differentiation of a single analogue data point according to the resolution setting.

You can drag and drop the data points into the selected chart form in the right-hand window “Data points in this chart”.

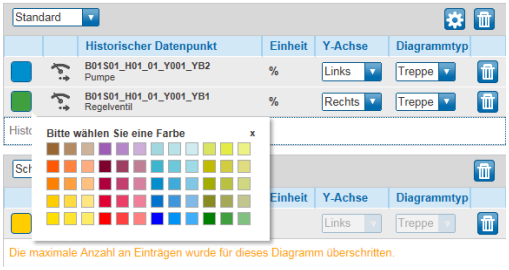



Fig. 83 Combined charts, colour selection

Depending on the type of diagram, different settings are possible:
• You can change the pre-set colour by clicking on the colour of the data point. (All data points)
• The assignment to the left or right Y-axis is only possible in the standard diagram.
• The value range of the Y-axis is automatically determined according to the currently visible area. You can use “left” and “right” to define where the Y-axis is to appear in the diagram.
• A display in the form of lines or steps is only possible in the standard diagram.
• Clicking on the symbol enables you to adjust the Y-axis range manually and add lines with a constant value. This is only possible with standard and meter diagram types.

If the value range is set too high, the recording will only appear as a straight line. For example, if the value of “Y-Max” is less than the smallest value, the recording cannot be seen at all.

All the data points are displayed as “steps” as standard.

You can click on “Preview” to see the combined chart that results from this configuration.

Click on “Save” to create the new combined chart.

**Editing a combined chart**
Click on the icon to edit a combined chart. The same window appears as when you create a new chart, but the settings of the configuration to be edited are already loaded. Make the changes and click on “Save” to apply them.

**Duplicating a combined chart**
This function allows you to use existing combined charts as templates for new ones without having to make the settings again. Click on the icon in the appropriate line.

Before execution, pay attention to the confirmation prompt, then either carry out duplication or cancel the process.

**Deleting a combined chart**
This action deletes a combined chart. Click on the icon in the appropriate line.

When you delete a combined chart, the simple charts and log data displayed in it are not deleted.

Before execution, pay attention to the confirmation prompt, then either carry out deletion or cancel the process.

## 15.3 Data logger

The procedure for saving logs on an SD card can be configured using different methods.

**Circular buffer**
If the SD card does not have any memory available, data recording is usually paused.
If the “Circular buffer” option is activated, the oldest values will be overwritten with new ones if there is no more memory available on the SD card. This process continually and infinitely repeats itself.

**Log record watchdog**
Click “Activate logger watchdog” to monitor the number of recorded values for each data point. Click “Threshold” to limit the maximum number of values within the logging period.
An alarm is generated if the threshold is exceeded. The recording of this data point can also be stopped by clicking “Pause log”.

### Sample overflow confirmation

All of the logs are monitored for overflowing. An alarm is generated, and the cause of the alarm must be resolved in the stations logged in. After you have performed the corresponding measures in the stations affected, you must confirm this via the “Set to normal” button.

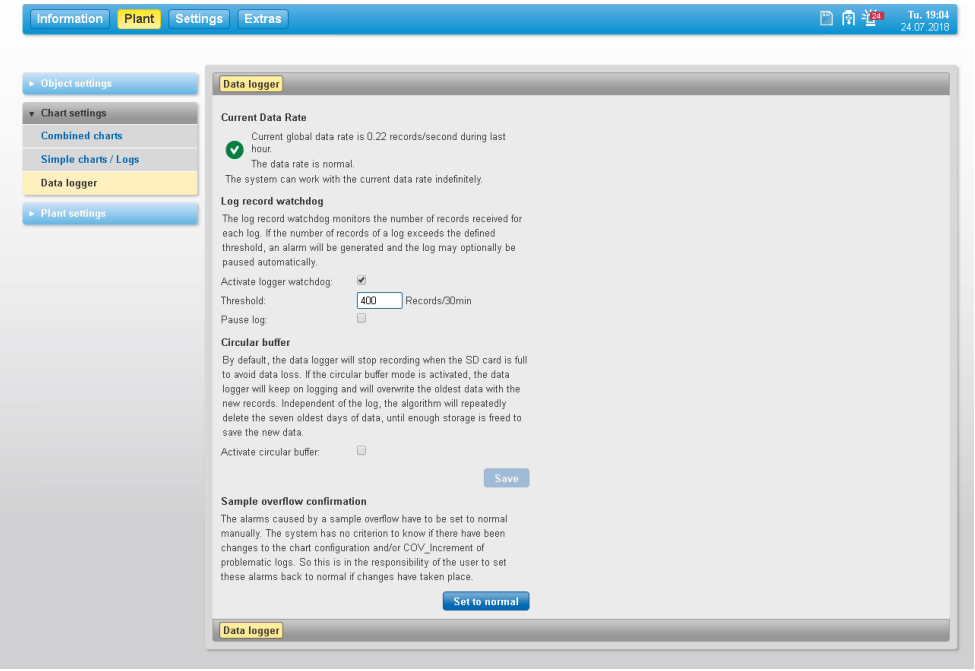



Fig. 84 Data logger, circular buffer and watchdog

There are two monitoring functions in the system. The goal of the first monitoring function is to inform the operator or technician that it is possible that too many value changes are being transmitted. The second monitoring function is a safety function with the goal of protecting the system from overloading in relation to the logging. This function cannot be configured and also generates alarms that can be reset with the described button. The first monitoring function has been kept for compatibility reasons and can be deactivated if required.

# 16. Device registration

This section describes the “Device registration” area under “Plant settings” in the main “Plant” menu.

All devices that you want to display and operate in moduWeb Vision must be registered. Only registered devices are monitored and have alarms, for example, displayed for them.

Devices are usually registered when the plant is commissioned by SAUTER specialists. The loading process can take a few minutes. The function described below can be used to register additional devices or delete devices for moduWeb Vision when the system is already in operation.

⚠

Improper changes to the device registration can result in parts of the plant no longer being properly monitored or being incapable of operation.

In the main “Plant” menu, click “Plant settings” in the menu tree and then “Device registration”.

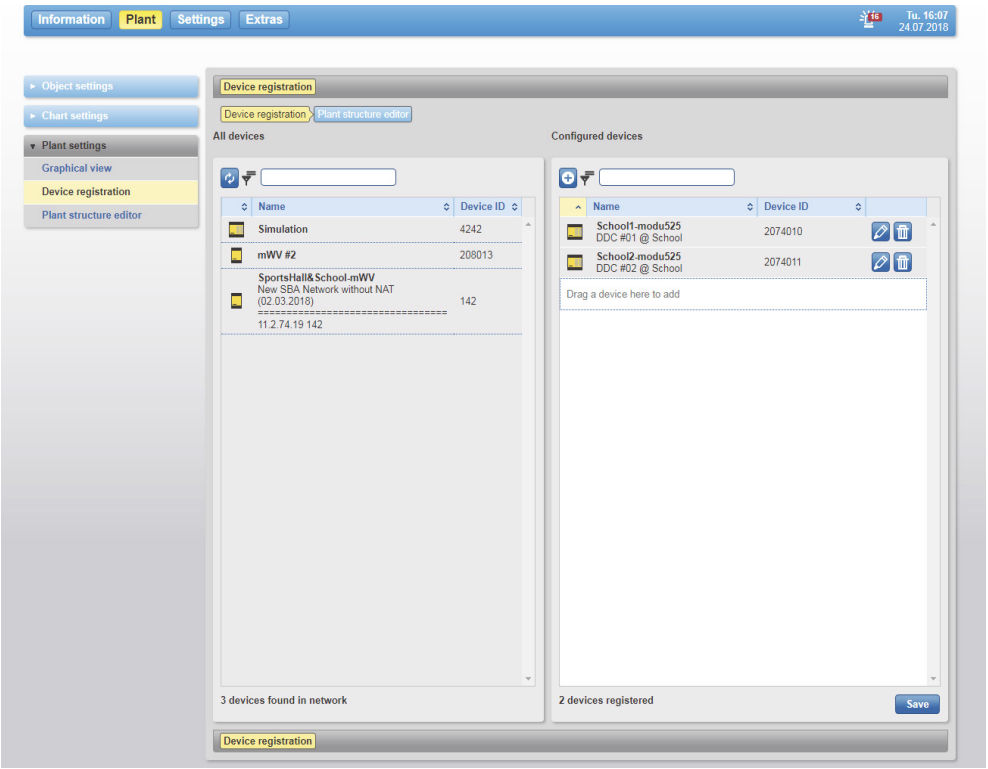



Fig. 85 Device registration

The content area is divided into two sections:

- The “All devices” list on the left shows all devices that have been found in the network and communicate via the BACnet/IP protocol.
- The “Configured devices” list on the right shows the devices that are registered in moduWeb Vision.

When this window is loaded, the system automatically scans the network for BACnet devices and displays them under “All devices”. You can also start the scan manually by clicking the icon.

The lists show the device type, the device name, a description and the unique DOI (device object identifier) in the network.

The device type is indicated by an icon. For SAUTER devices, the icon resembles the device. For non-SAUTER devices or devices whose type information is faulty or cannot be read for any other reason, the icon is a question mark.

**Registering devices**

To register a device, drag it from the list on the left and drop it onto the list on the right.

If a device is to be registered which is located in another network and is thus not automatically detected and displayed in the list on the left, you can click the icon to open the “Add device” window in order to register a device.

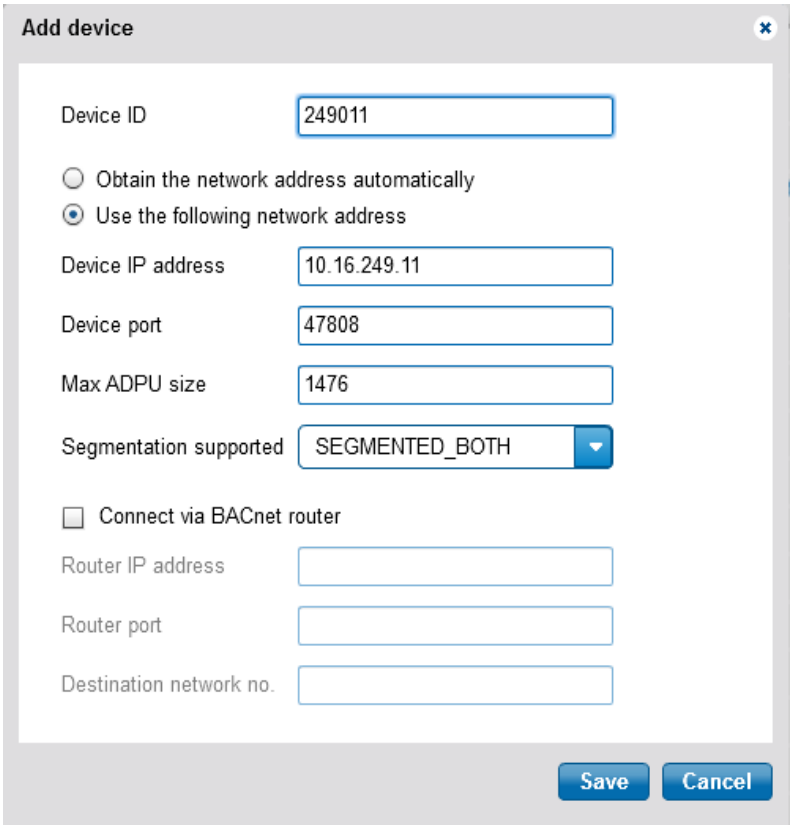



Fig. 86 Adding a device

Activate “Use the following network address” and enter the IP address and port of the device. The values “Max ADPU size” and “Segmentation supported” are usually automatically detected.

If the connection is to be established via a BACnet router, activate “Connect via BACnet router” and enter its addressing data.

Click “Save” to add the device to the registered devices.

If you enter only the device ID and “Obtain the network address automatically” is activated, this dialogue has the same function as registration using drag-and-drop.

To delete the registration of a device, click the icon. The device is deleted from the list of registered devices and moved to the list on the left.

To complete the registration, click “Save”. If you leave the “Device registration” page without saving, registrations or deletions that have been made are discarded. The browser displays a corresponding warning message.

# 17. Plant structure editor

This section describes the “Plant structure editor” area under “Plant settings” in the main “Plant” menu.

This function is for managing the moduWeb Vision visualisation structure. Various objects can be integrated in a structural configuration and thus visualised. This visualisation structure appears as a “plant navigation tree” in the menu tree. See also section 6.3 and section 7.

The visualisation structure is usually set up when SAUTER specialists put the system into service. The function described below can be used for editing the visualisation structure when the system is in operation.

In the main “Plant” menu, click “Plant settings” in the menu tree and then “Plant structure editor”.

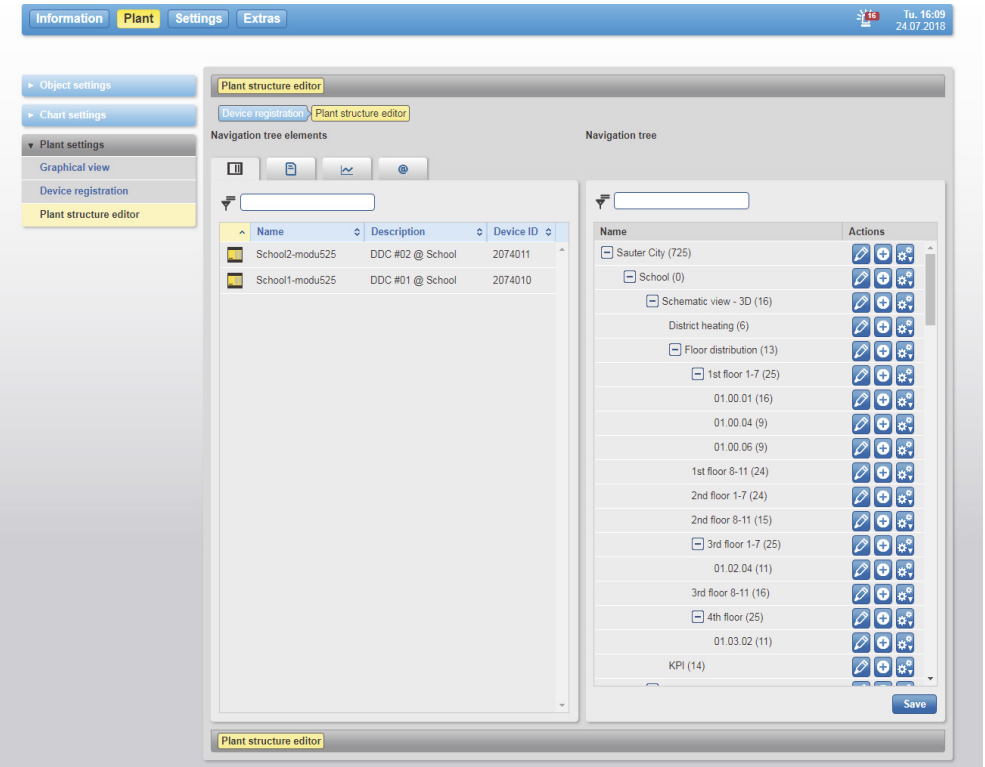



Fig. 87 Plant structure editor, device overview

The content area is divided into two sections:

- The “Navigation tree elements” list on the left lists the objects in moduWeb Vision that can be included in the visualisation structure. Various types of object can be included and are described in more detail below.
- The “Navigation tree” list on the right contains the moduWeb Vision visualisation structure. The structure is tree-shaped (like the folder structure of a computer) and can be edited; see section 17.2.

You can use drag-and-drop to assign objects from the “Navigation tree elements” list on the left to the nodes of the plant navigation tree in the list on the left, making them visible in the plant overview. Please note the following section 17.2.

## 17.1 Object types

The term “objects” not only refers to BACnet objects (such as analogue inputs and outputs) that are included in moduWeb Vision via a registered BACnet device, but also to non-BACnet objects. This means objects that do not come from the “BACnet world” but can still be structured and visualised with moduWeb Vision.

Click on the tabs of the left part of the screen to switch between the various object types. The following object types are possible:

| | |
|---|---|
| | Registered devices |
| | Documents |
| | Combined charts |
| | Web links |

**BACnet objects of registered devices**

These are objects located on a device that is registered in moduWeb Vision. If you click on a device in the device overview (Fig. 64), the BACnet objects located in this device are displayed.

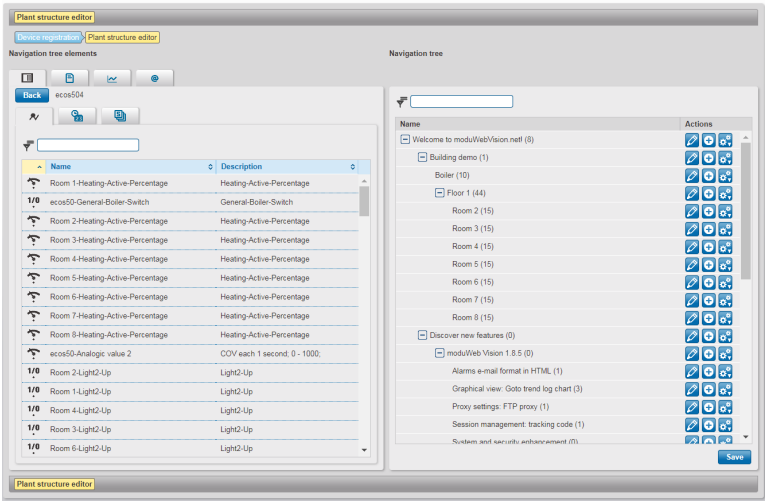



Fig. 88 Plant structure editor, BACnet objects

The current device names are shown above the list.
Click on “Back” to return to the device overview.

The objects of a device are divided into three categories. Click on the tabs above the list to switch between the various categories. The following categories are possible:

| | |
|---|---|
| | Data points<br>Shows all data points (AI, AO, AV, BI, BO, BV, MI, MO, MV) of the selected device. |
| | Calendars/Schedules<br>Shows all schedule and calendar objects of the selected device. |
| | Special objects<br>Shows all special objects (Loop, OptH, OptC, Trend Log, Command, Group-Axis) of the selected device. |

### Documents

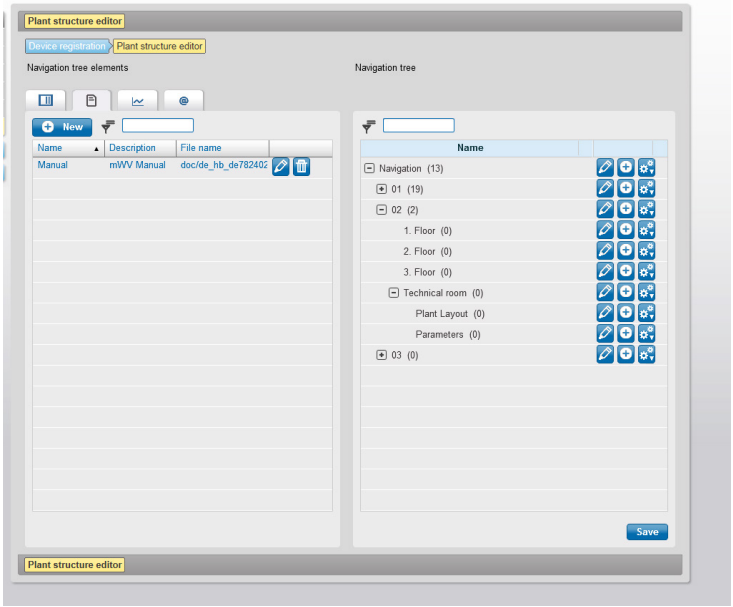



Fig. 89 Plant structure editor, document object type

Documents providing useful information, such as plant descriptions, schemas, data sheets, instructions etc., can be stored in moduWeb Vision. Such documents can be displayed in the plant overview.

A document object consists of a name, a description and a link to a document file in the memory of moduWeb Vision.

The document objects are displayed in the list.

Click on “New” to add new documents. Enter a name and a description in the pop-up window and select the file to upload. Finally, click on “Save”.

You can use the icon to edit the names and descriptions of existing documents.

Click on the icon to delete documents from the system.

## Charts

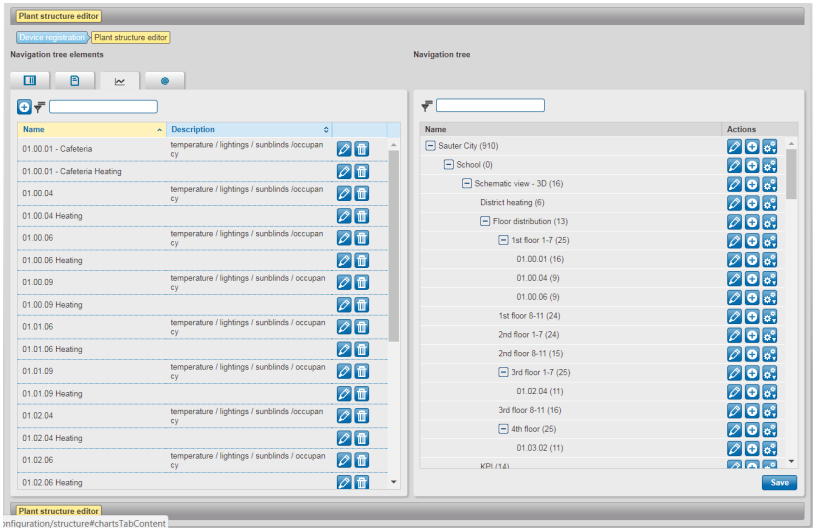



Fig. 90 Plant structure editor, chart object type

These are objects which represent a combined chart.

Click on “New” to create new combined charts. The window for creating new combined charts appears; see section 15.2. Make the settings and then click on “Save”.

You can use the icon to edit an existing combined chart. Make the changes in the window that appears and then click on “Save”.

Click on the icon to delete combined charts from the system.

Combined charts are normally created and edited in the “Chart settings” menu of the main “Settings” menu (see section 15.2).

### Web links

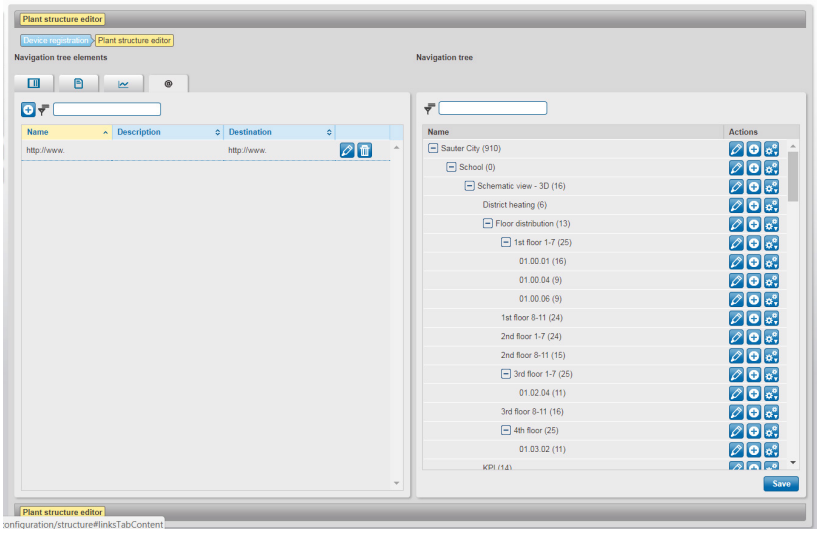



Fig. 91 Plant structure editor, web link object type

Useful links to websites such as webcams, service contacts, shift plans and weather information can be assigned to a node.

These objects contain a link to a site via an internet address (e.g. www.sauter-controls.com).

Click on “New” to add new web links. Enter a name, a description and an address in the pop-up window. Finally, click on “Save”.

Click on the icon to edit existing web links.

Click on the icon to delete web links from the system.

## 17.2 Visualisation structure

The right side of the content area (see Fig. 87) contains the visualisation structure. The structure has the form of a tree, like the folder structure of a computer.

The top node is mandatory. It can be edited and renamed, but not deleted. Other nodes can be added to this one.

There is no limit to the number of hierarchical levels, and every node can be linked to any number of sub-nodes.

The number in brackets beside the name of each node indicates how many objects (BACnet objects, document objects, chart objects, web link objects) there are in this node.

To the right of the column there are icons which you can use to configure the nodes.

Changes to the structure are not applied until you click “Save”. This means you can reverse any changes made by mistake by exiting the window without clicking “Save”.

**Adding nodes**

You can add a new node to any node using the icon. The added node is given a default name. This consists of the name of the node it was added under, plus the current number of nodes in the structure. The name can be changed.

**Deleting nodes**

To delete a node, click on the icon and select “Delete” from the list of options that appears. The node is deleted, along with all the objects and configurations it contains.

**Moving nodes**

You can move a node elsewhere in the structure by cutting and pasting it.
To do this, click on the icon of the node to be moved and select “Cut” from the list of options that appears. The node is removed and stored in a buffer. You can then add it to another node.
To do this, click on the icon of the node you want to paste it into and then select “Paste” from the list of options. The node you cut out, along with all its settings and the objects it contains, is added below the selected node.

**Copying nodes**

You can copy a node and paste it anywhere in the structure.
To do this, click on the icon of the node to be copied and select “Copy” from the list of options that appears. The node is stored in a buffer. You can then add it to another node.
To do this, click on the icon of the node you want to paste it into and then select “Paste” from the list of options. The copied node, along with all its settings and the objects it contains, is added below the selected node.

**Assigning objects to nodes**

Use drag-and-drop to drag an object or several selected objects from the list on the left to a node in the plant navigation tree in the list on the right.

### Editing nodes

Each node consists of a series of attributes (e.g. name, description) as well as the BACnet and non-BACnet objects it contains.

Click on the icon to open the properties window.

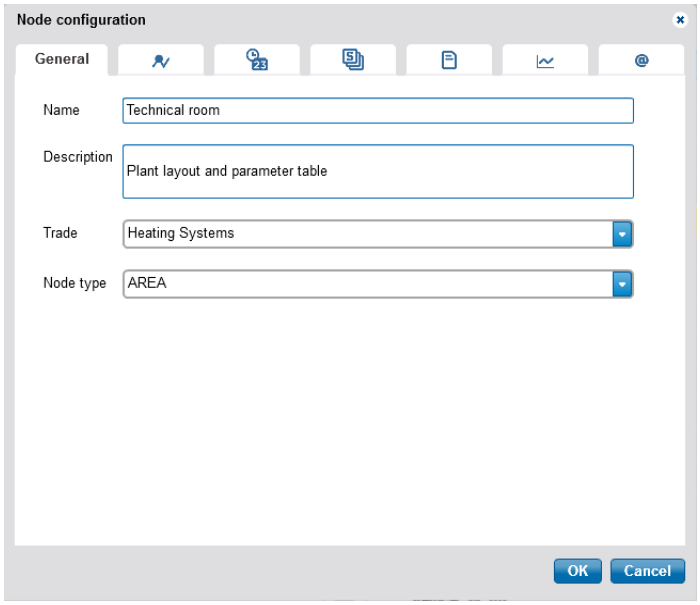



Fig. 92 Plant structure editor, properties window

The “General” tab of the window shows the attributes of the node. You can edit these.

The other tabs list the various objects assigned to the node. The various object types are described in section 17.1.

Objects with a icon can be deleted.

You must click “OK” to confirm any changes before they are saved.

# 18. User settings

This section describes the “User settings” area in the main “Settings” menu.

## 18.1 User management

### 18.1.1 Roles (user groups)

moduWeb Vision distinguishes between the following preconfigured roles (user groups):

- Administrator
- Specialist
- User
- Guest

The roles are assigned different rights to access the functions and information in moduWeb Vision. The availability of menus and the ability to edit parameters and values differ according to the role. The role is assigned by the administrator when the user is created.

The users themselves cannot change their roles or authorisations.

Users who are registered as administrators still have the option of individually allowing or prohibiting visibility of individual equipment systems and nodes when creating and editing users. Prohibited equipment systems and nodes are not shown to the user.

At least one user must be created as an administrator. If only one administrator has been created, it cannot be deleted.

The following table shows an example of how individual authorisations can be assigned to roles:

| Authorisation | Guest | User | Specialist | Administrator |
|---|---|---|---|---|
| Login / logout | • | • | • | • |
| Observe | • | • | • | • |
| Change setpoints | | • | • | • |

The assignments are predefined in the system.

### 18.1.2 Creating a new user

Logged in users with administrator or specialist authorisations can create new users with the same authorisation (role) or a lower one.

Click “User settings” and then “User management” in the menu tree in the main “Settings” menu.

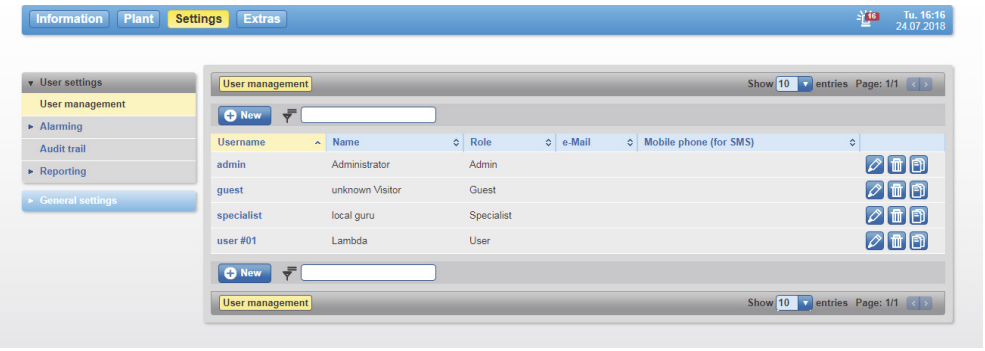



Fig. 93 User management, overview (only visible to “Admin” role)

A list of all the created users with the same authorisations (role) or lower appears. Thus, no administrator roles appear for a specialist.

Click “New”. The input dialogue for user data appears.

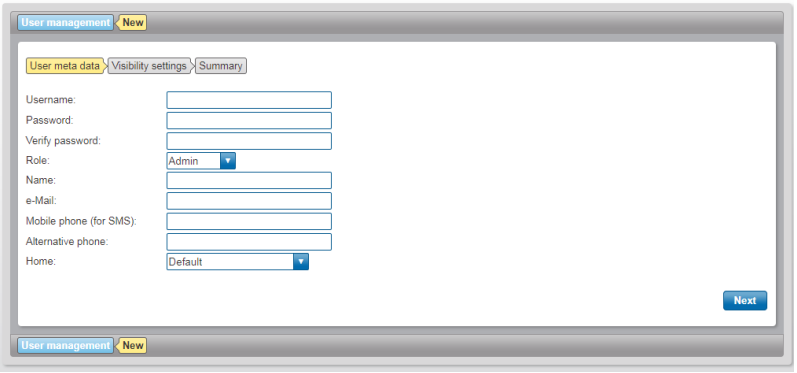



Fig. 94 User management, input dialogue for user data

The fields in the input dialogue have the following functions:

**User name**

The name of the user for authentication in the login screen.
Mandatory field, at least 4 and up to 16 characters long. Alphanumeric and special characters are permitted, with the exception of the following 5 characters (+%&#"). The characters are visible in plain text. They are not case-sensitive.

**Password**

The password for logging into moduWeb Vision must have at least 8 and no more than 16 characters. It is used for authentication when logging in. Together with the user name, the access rights are specified by the administrator or specialist. Mandatory field, at least 8 characters long. For the password, all alphanumeric and special characters are permitted, with the exception of the following 5 characters (+%&#"). The characters are not visible while they are being entered. They are case-sensitive. The password should not be the same as the user name.
For security reasons, when the user logs in, the password change dialogue opens so that an existing, possibly weak password, or the standard password “passwd”, is changed.

Fig. 95 Password change based on new security guidelines

**Verifying a password**

For confirmation purposes, the password must be entered again in this mandatory field. The system checks the entry to ensure that the confirmation is identical to the password that was entered previously.

**Role**

The predefined roles are available here (administrator, specialist, user, guest). This choice is only available to users with administrator or specialist rights.

**Name**

The full name of the operator is entered here. This might be different from the name entered under “User”. Mandatory field, at least 4 and up to 40 characters long.

**E-mail**

The address entered here is used for e-mail notifications to the user. When an e-mail is entered, you can use the “Send test e-mail” button to send a test mail to the specified address.

In order for a notification to take place, the settings must be made as described in sections 18.2 and 19.1.

**Mobile phone (for SMS notification)**
The mobile phone number entered here is used to send SMS notifications to the user.
To perform an SMS (text message) notification, an e-mail must be sent to a suitable SMS gateway, which then forwards the e-mail to the mobile number in the form of an SMS. When a mobile phone number is entered, you can use the “Send test SMS” button to send a test SMS to the specified number.

**Alternative telephone number**
An alternative telephone number for contacting the user can be entered here.

**Home nodes**
Here the user can specify which view should appear when the user logs in or presses the “Info” button.
The following views can be selected:

- Default
- Current alarms
- Alarm history
- Combined charts
- Simple charts / logs
- Audit trail
- Node from plant structure

To select a node from the plant structure, click the item “Node from plant structure” in the selection list.
Then click on the blue button “Select a node”. An overview with the available nodes opens. When you select a node using the mouse, its background changes to yellow.  Click on “OK”.

In order that the node can be displayed for the respective user, the node must be visible for the user. Otherwise the default setting is applied.

The “Username”, “Password” and “Name” fields are mandatory. Then click on “Next”. The window for the visibility settings appears:

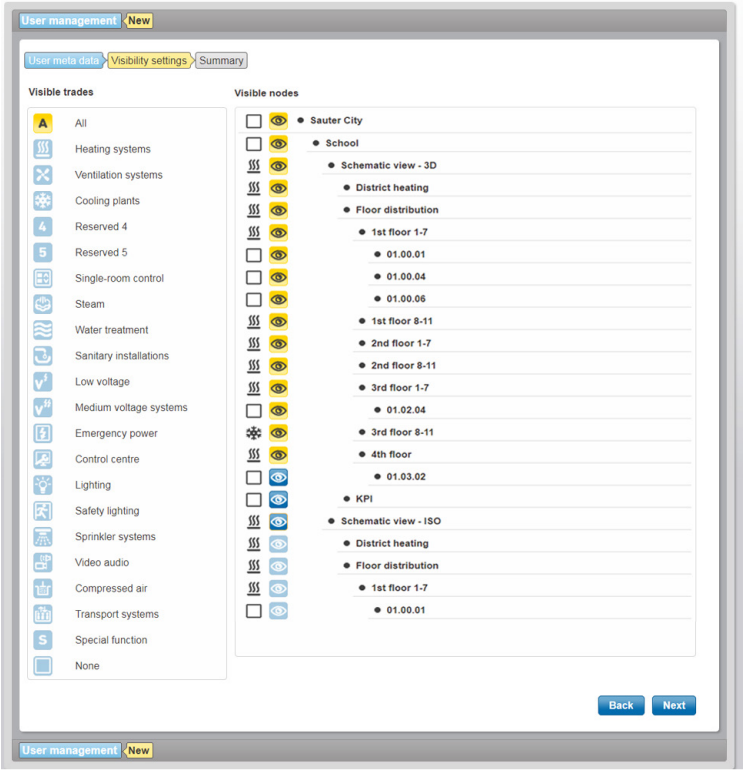



Fig. 96 User management, visibility settings

Here you can define which equipment systems and nodes are visible to the new user.
First highlight the equipment systems that the user should see in the “Visible trades” column on the left. The right column “Visible nodes” changes accordingly by disabling the visibility icons of nodes with equipment systems that are not marked as visible on the left.

Other nodes are also made invisible in the column on the right. This is because of the inheritance hierarchy of the tree structure: if a node is invisible, then so are all its sub-nodes.
Then click on “Next”. A summary of the settings made for the new user appears.

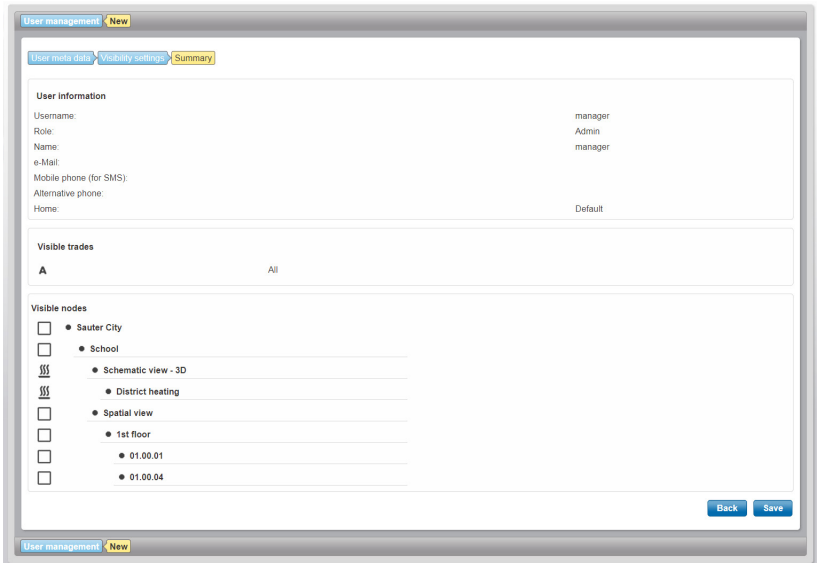



Fig. 97 User management, new user summary

Click on “Save”. The action is executed after you respond to a confirmation prompt.

The entries are saved and the new user appears in the user management summary window.

### 18.1.3 Editing users

Logged in users with administrator or specialist authorisations can change users with the same authorisation (role) or a lower one.

Click the user name in the user management summary window. The details of that user appear.

Fig. 98 User management, individual view of user data

You can use the “Send test e-mail” and “Send test SMS” functions to send a test e-mail or SMS to the user’s e-mail address or mobile phone number. Before sending, you need to respond to a confirmation prompt.

Click on “Edit”. The input dialogue for user data appears.

You can also view this window by clicking the icon of the appropriate line in the user management summary window.

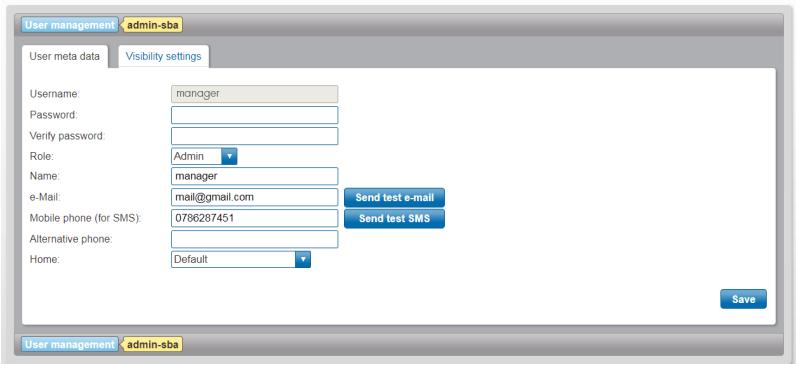



Fig. 99 User management, input dialogue for user data

This window is the same as the input screen for creating a new user. You can change all the data except the user name.
You can use the Visibility settings tab to switch to the Visibility settings view. The specialist systems and nodes visible to the user are displayed there in an overview. In order to change the visibility settings, you need to click “Edit” on the bottom right. Then you can select specialist systems and nodes that you want to be visible.

In order to save the changes, click “Save” on the bottom right of the respective window.
“Save” is active only when changes have been made and the mouse pointer is no longer in an input field.

### 18.1.4 Duplicating users

A user who is registered as an administrator or specialist can duplicate existing users.

To do this, click the symbol on the corresponding line in the user management summary window.

The input dialogues that appear when you duplicate a user are the same as those that appear when you create a new user.
All data except for the password is copied from the selected existing user. The copied entries can be changed.
The previous user name that was copied must be changed.

The rest of the process is the same as for creating a new user.

### 18.1.5 Deleting users

A user who is registered as an administrator can delete existing users.

To do this, click the symbol on the corresponding line in the user management summary window.

After you respond to a confirmation prompt, the user is deleted.

### 18.1.6 Changing your own details/password

Instead of the “User management” menu, users who are not registered as administrators (specialist or user role) see the “My profile” menu, where they can view their own details.
Most of the user data and the password can be changed by clicking on “Edit”. The user name, the role and the visibility settings cannot be changed.

ⓘ You can use the “Send test e-mail” and “Send test SMS” functions to send a test e-mail or SMS to the user’s e-mail address or mobile phone number. Before sending, you need to respond to a confirmation prompt.

## 18.2 Alarms

moduWeb Vision can notify users of alarms that occur. You can choose the conditions and method (e-mail and/or SMS) for notifying a user of alarms.

SMS notifications are sent by e-mail to an SMS gateway. The SMS gateway forwards the content of the e-mail in the form of an SMS to the user's mobile phone number that was entered in the user administration.

To configure alarm notifications, you must first make settings in the "General settings, notification settings" menu of the main "Settings" menu (see section 19.1):

- Configure the mail server
- Define notification profiles, recipient groups and the type of alarms that are reported to them
- Define the standard e-mail format and content
- Define the standard SMS format and content

The process for converting e-mails to SMS via an SMS gateway may differ, depending on the telecommunications provider. You may need to contact the provider.

After this, you can make the settings for specific users described below. The condition is that the users have already been created and the plant has been defined.

- Alarm notification,
  assignment of notification profile to a user
- E-mail format,
  optional setting when the standard e-mail format cannot be used for the user
- SMS format,
  optional setting when the standard SMS format cannot be used for the user
- Sending logs

### 18.2.1 Alarm notification

Administrators can configure notifications for themselves and other users here. Users who are not administrators (specialist or user role) can view and edit only their own settings.

Log in as administrator, then go to the main “Settings” menu and click “User settings”, “Alarming” and “Alarm notification” in the menu tree.

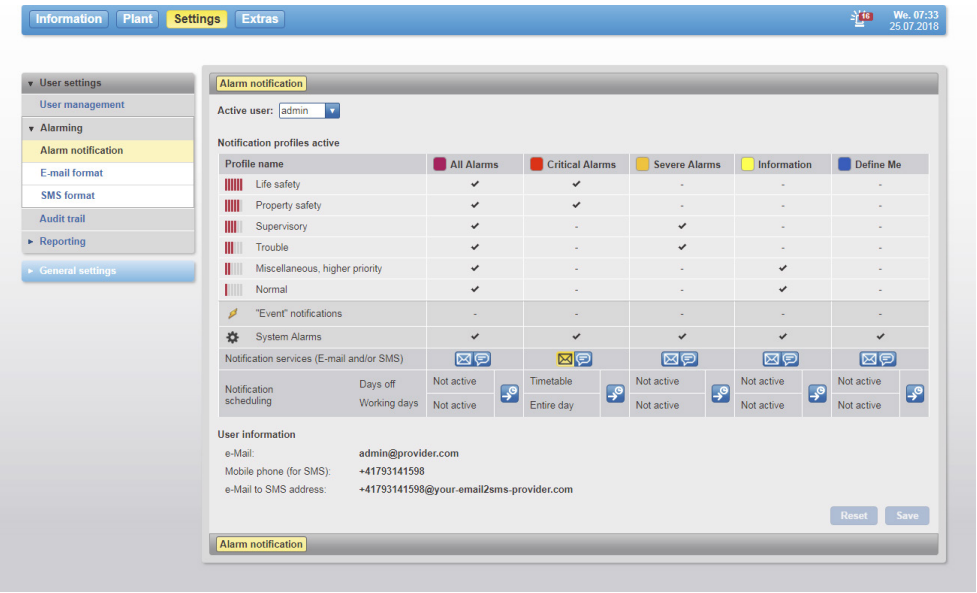



Fig. 100 Alarm notification

The notification profiles defined in the “General settings” under “Alarm settings”, “Notification profiles” are displayed.

For “Active user”, select the user whose alarm notification you want to configure (this is only possible for users registered as administrators).

Highlight “E-mail” or “SMS” below each profile to define whether the selected active user is notified of alarms in the profile vie e-mail and/or SMS.

The individual data, e-mail address and mobile phone number shown in the lower section are for information only. They can be changed in the user administration. Reset all changes using the “Reset” button.

To complete the process, click “Save”.

### 18.2.1.1 Setting the alarm scheduling

For every user and every notification profile, it can be specified in the alarm scheduling the days or times at which an alarm is to be sent.

In the “Alarm notification” view, click on the icon at the end of the table.
A new window opens.

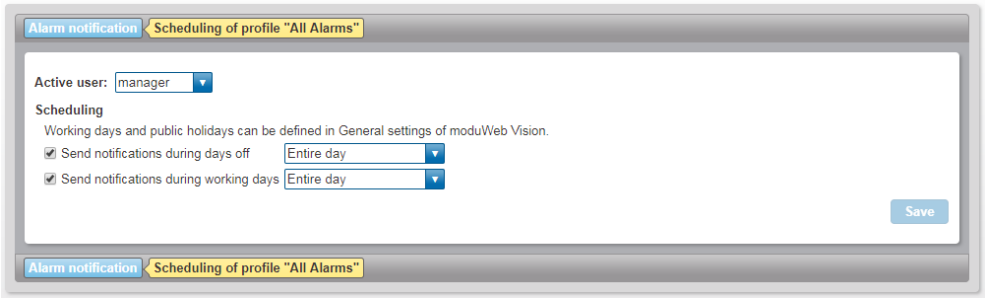



Fig. 101 View of the alarm scheduling

The following settings can be made for the public holidays:

- Entire day
- Schedule

The following settings can be made for normal working days:

- Entire day
- Working hours (see 19.2.3)
- Outside working hours
- Schedule

You can make detailed settings in the schedule.
Click on a free field in the schedule.
A window opens in which you can make the time settings. To save your settings, click on “Save”.

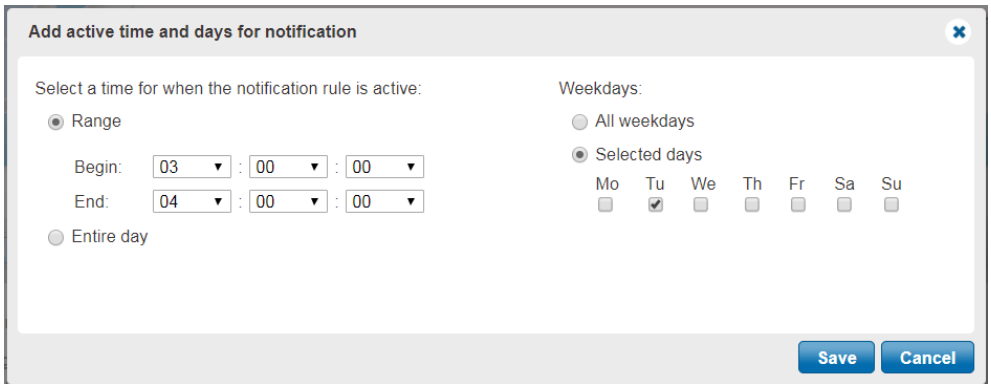



Fig. 102 Schedule settings for notification

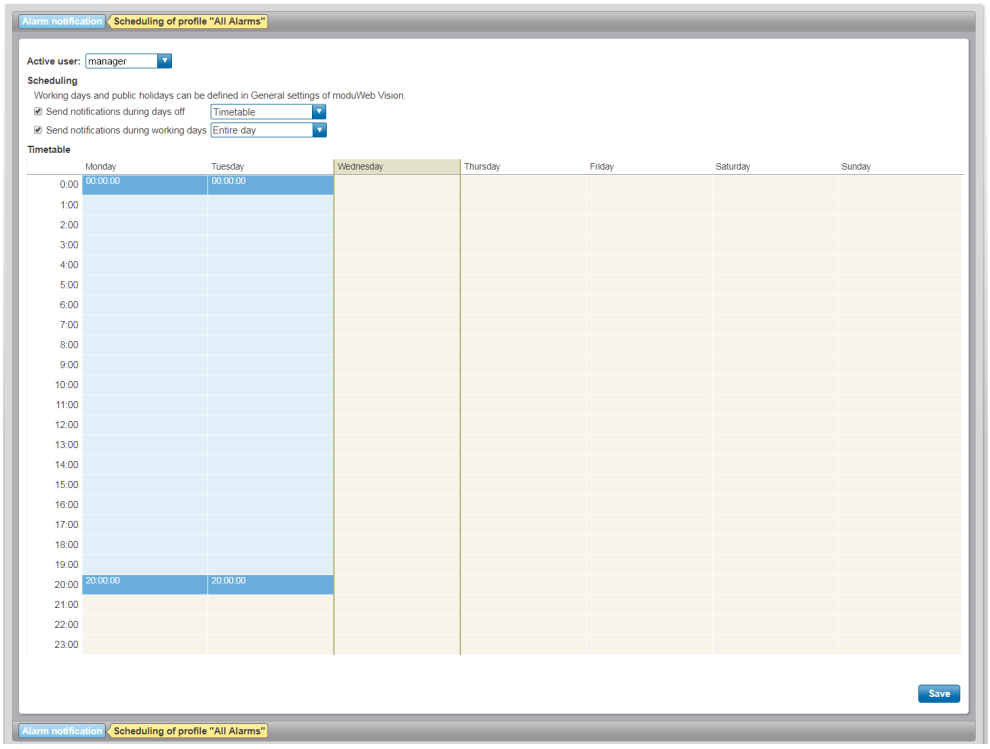



Fig. 103 Activated entire day entries in the schedule (Monday and Tuesday)

### 18.2.2 E-mail format

Administrators can configure the content of alarm e-mails for any user here. Users who are not administrators (specialist or user role) can view and edit only their own settings.

In the main “Settings” menu, click “User settings”, then on “Alarming” and “E-mail format” in the menu tree.

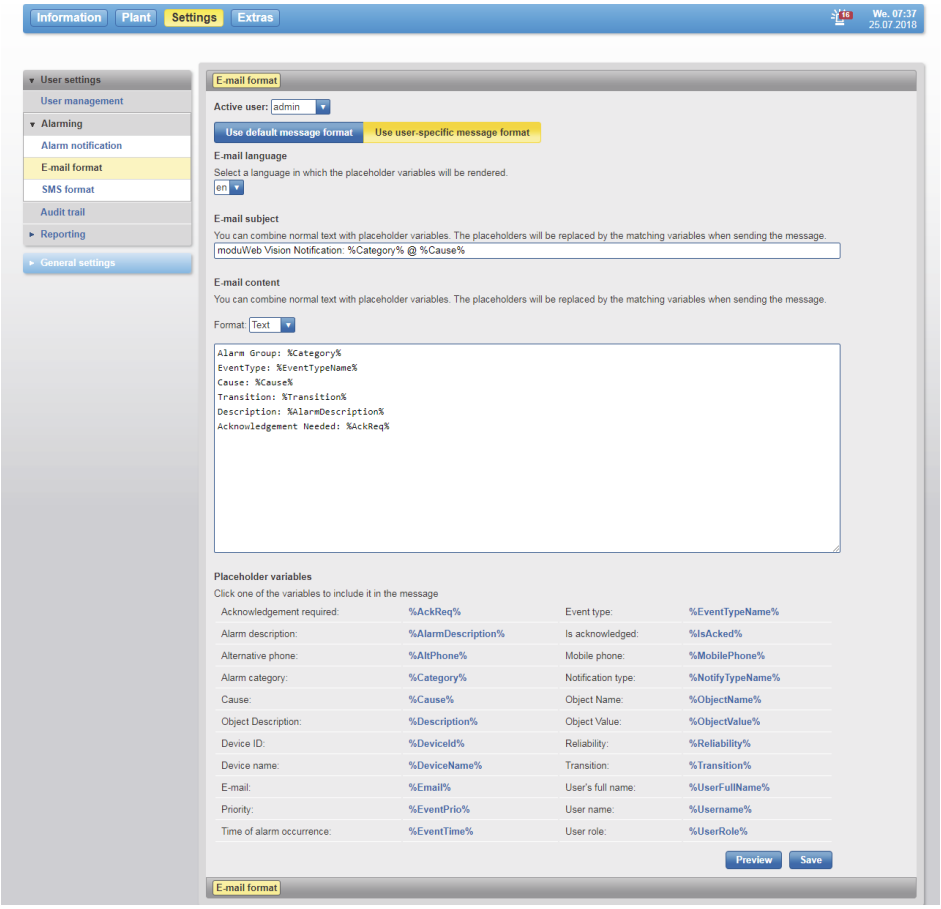



Fig. 104 E-mail format

For “Active user”, select the user who these settings will apply to (this is only possible for users registered as administrators).

Use the two buttons below to make the following basic selection:

“Use default message format” means that no further configuration is possible and the template configured in “Default e-mail format” is used. In this case, the other fields in the window cannot be edited.
“Use user-specific message format” means that a specific configuration in the message structure is to be used. In this case, the other fields in the window can be edited.

- For “E-mail language”, select the language in which the placeholder variables are to be displayed.
- For “E-mail subject”, enter the text for the subject line and for “E-mail content”, enter the content.
- In the “Format” selection list, the mode of the subsequent text editor can be changed. When “Text” is selected, simple text is transferred in the e-mail. When “HTML” is selected, you can add additional adjustments such as font size, formatting or images.

A combination of running text that is entered and “placeholders” is defined (placeholders are the blue terms below “Placeholder variables”). The placeholders stand for the different dynamic parameters of, for example, an alarm and they are replaced by the current content of the variable when the e-mail is sent. You can add placeholders to the subject or content by clicking on the blue parameter text at the current cursor position.

Click on “Preview” to see an example of the configuration.
Reset all changes using the “Reset” button.
To complete the process, click “Save”.

### 18.2.3 SMS format

Administrators can configure the content of SMS (text message) alarm notifications for any user here. Users who are not administrators (specialist or user role) can view and edit only their own settings.

In the main “Settings” menu, click on “User settings”, then “User notification”, “Alarming” and “SMS format”.

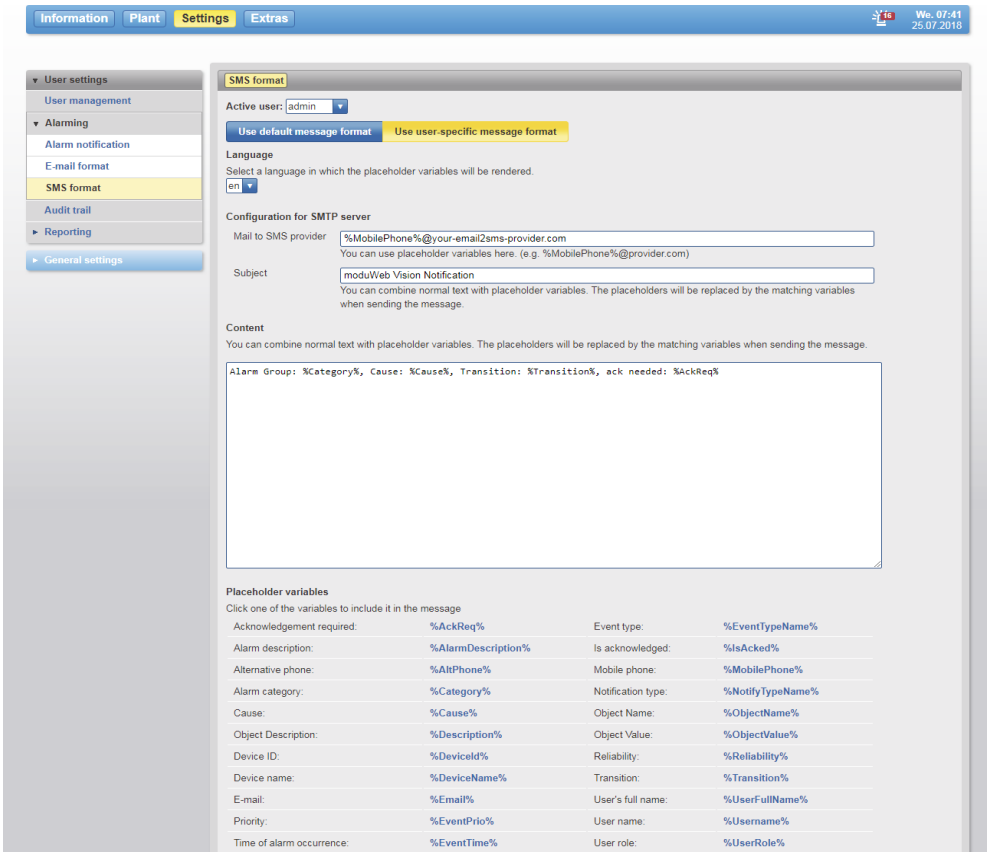



Fig. 105 SMS format

For “Active user”, select the user who these settings will apply to (this is only possible for users registered as administrators).

Use the two buttons below to make the following basic selection:

“Use default message format” means that no further configuration is possible and the template configured in “Default SMS format” is used. In this case, the other fields in the window cannot be edited.
“Use user-specific message format” means that a specific configuration in the message structure is to be used. In this case, the other fields in the window can be edited.

- For “Language”, select the language in which the placeholder variables are displayed.
- For “Subject”, enter the text for the subject line and for “Content”, enter the content.

A combination of running text that is entered and “placeholders” is defined (placeholders are the blue terms below “Placeholder variables”). The placeholders stand for the different dynamic parameters of, for example, an alarm and they are replaced by the current content of the variable when the e-mail is sent. You can add placeholders to the subject or content by clicking on the blue parameter text at the current cursor position.

Click on “Preview” to see an example of the configuration.

To complete the process, click “Save”.

## 18.3 Audit trail

Administrators can configure the sending of audit trail logs for any user here. Users who are not administrators (specialist or user role) can view and edit only their own settings.

Users logged in as a specialist or user must go to the main “Settings” menu and then click on “User settings”, “Audit trail”.

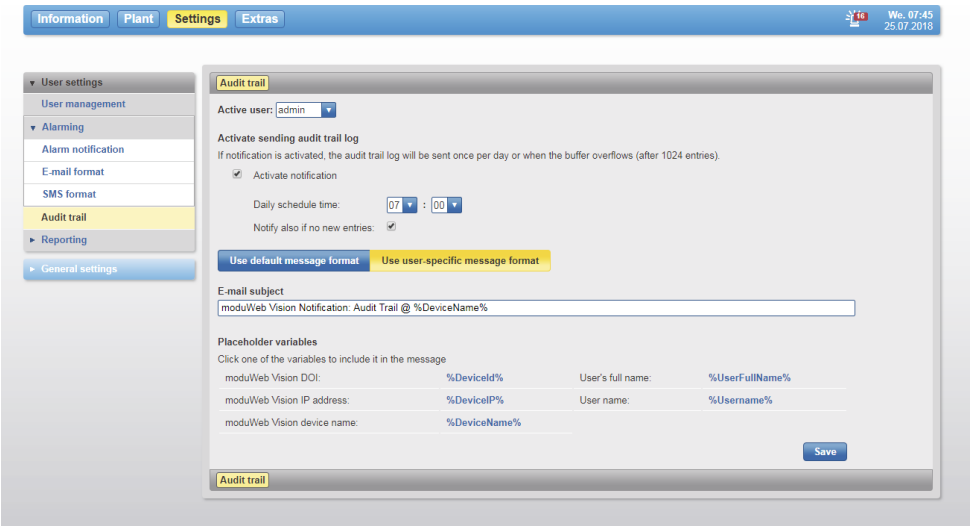



Fig. 106 Audit trail

For “Active user”, select the user who these settings will apply to (this is only possible for users registered as administrators).
You can use the “Activate notification” checkbox to enable the sending of log entries.
If you want a notification to be performed even if there are no entries, activate the checkbox “Notify also if no new entries”.

If you want to use a user-specific format in the e-mail, click on the blue button “Use user-specific message format”. You now have the option to put the corresponding placeholder variables in the subject of the e-mail.

Sending is performed at the specified time, or when there are more than 500 entries, whichever occurs first.

To complete the process, click “Save”.

## 18.4 Reporting

Authorised users can use this function to generate report templates for reports. The reports can be created and sent manually or on a time-controlled basis. The export creates a CSV file with the values at the time of the export. The settings stored in the report determine which values are transferred to the file.

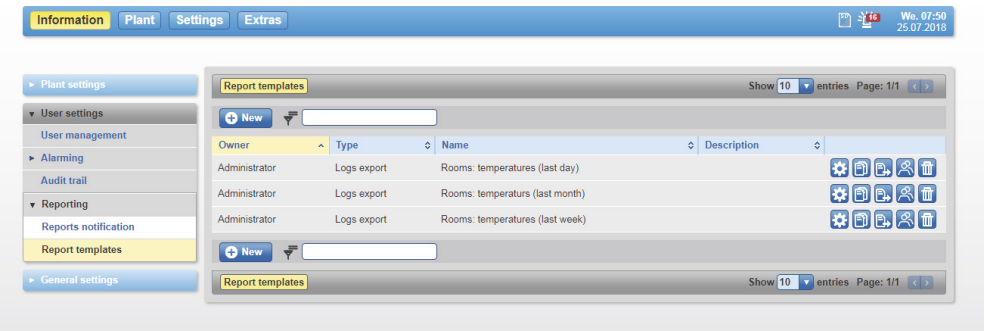



Fig. 107 Overview of report templates

If there are existing report templates, they are displayed in the form of a table. (See Fig. 107)

The following functions are possible with these icons:

| | |
|---|---|
| | Edit report template |
| | Duplicate report template |
| | Generate and export report |
| | Assign report template to another user |
| | Delete report template |

### 18.4.1 Creating a report template

To create a new report template, click on the New button.
A new window opens.

Fig. 108 Creating a new report template

In the “Owner” field you can select the user who will be using this report template. The user who creates the document is selected as standard here.

The “Report type” field provides 2 options:

- Export log: This can be used to generate historical recordings as a .csv file
- Website: This can be used to generate a report formatted as an HTML page.

In the “Name” field you can specify a name of your choice for the template. The name should be user-friendly and between 4 and 64 characters long.
The “Description” field is optional.

After filling in the fields, click on the “Next” button.
A new window opens for validating the entries. Then click “Next” again.

Depending on the selected report type, the process differs below.

### 18.4.1.1 Exporting logs

#### 18.4.1.1.1 Model selection

After you have validated the entries, a new dialogue appears.

Fig. 109 Setting for selecting an export model

Here you must select the export model.
You can select the following settings:

- None
- Raw export
- Aggregate export
- ADEME - X10A/X3A

After selecting the export model click on “Next”.
A summary of the entries that have been made appears.

Click on “Next”.
A new configuration view for the document appears.

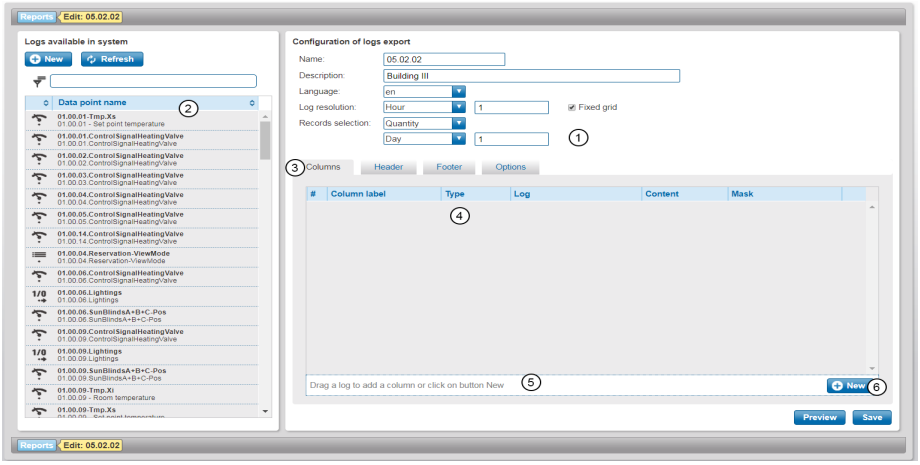



Fig. 110 Configuration view for the document

| | |
|---|---|
| ① | Here you can edit the following data:<br>• Name of the export<br>• Description<br>• Language<br>• Log resolution<br>• Entries for the records selection |
| ② | Data point records (simple charts / logs) |
| ③ | Content settings for the report. Columns, header, footer, options (general export settings such as columns separator, text for non-visible values, and the file name) |
| ④ | The content of the “Columns” tab defines the dynamic content of the report. The data points and the settings for them are entered here. |
| ⑤ | Storage field for the drag and drop function |
| ⑥ | Button for creating an empty entry |

There are two options for adding data points to the report.

**Option 1:**

Click on the New button under the window area “Configuration of logs export”.
A new, empty list element is added.

To assign a data point to the list element, use drag and drop to pull the data point into the field of the list element.

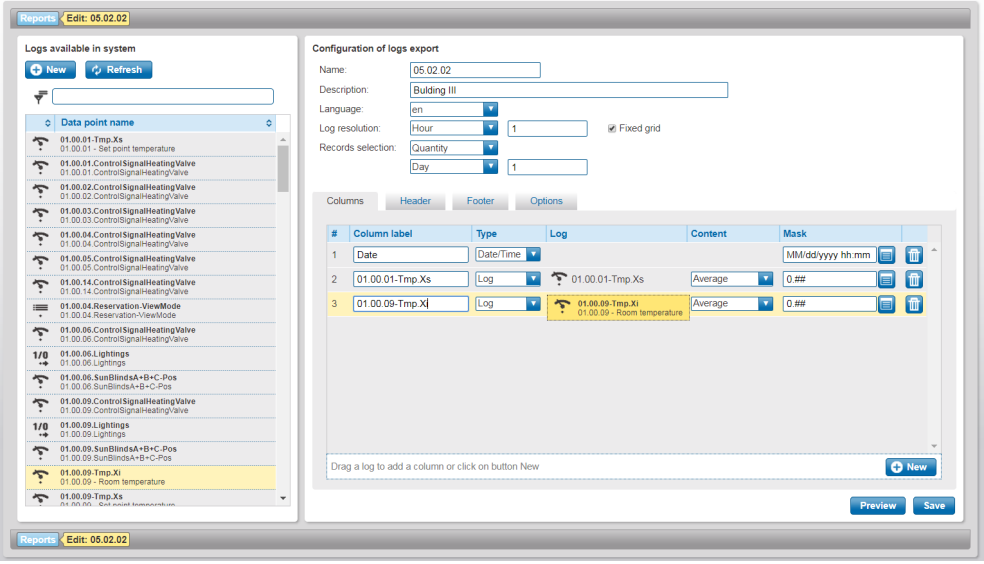



Fig. 111 Adding a data point in the list view

The following columns (see Fig. 111) are present and may be relevant, depending on the type:

| | |
|---|---|
| # | Line number |
| Column label | Text field for labelling the line |
| Type | Type selection<br>• Date/time<br>• Log<br>• Text |
| Log | If “Log” is selected as the type, the log can be added directly using drag and drop. |
| Contents | If the “Type” field has “Log” as its value, the following values can be selected here depending on the resolution of the log:<br>Raw data:<br>• Value<br><br>All other values (depending on the log):<br>• Average<br>• Maximum<br>• Minimum<br>• Meter<br>• Inactive (%)<br>• Active (%)<br>• Unknown (%)<br><br>If “Text” is selected as the “Type”, the text under “Content” is displayed. |
| Mask | This setting can be used to define the formatting of the values. (See Fig. 112). Click on the button to open the dialogue. |

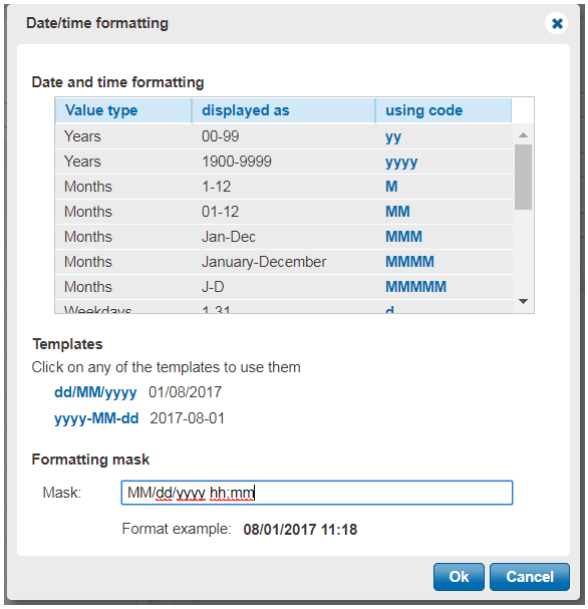



Fig. 112 Example of the formatting of a date value

**Option 2:**

Pull the data point into storage field no. 5 (see Fig. 110).

#### 18.4.1.1.2 Layout and CSV configuration

There are various setting options for the layout and the CSV configuration.

### 18.4.1.1.3 Configuring the header and the footer

To configure the header or the footer click on the “Header” or “Footer” tab. Here you have the option to configure the header text.
Select the checkbox “Include a text”. The text field below it and the button beside the text field are activated. The option “Include a row with columns name” can be used to define whether and where the column name is added. This function is only available in the header.

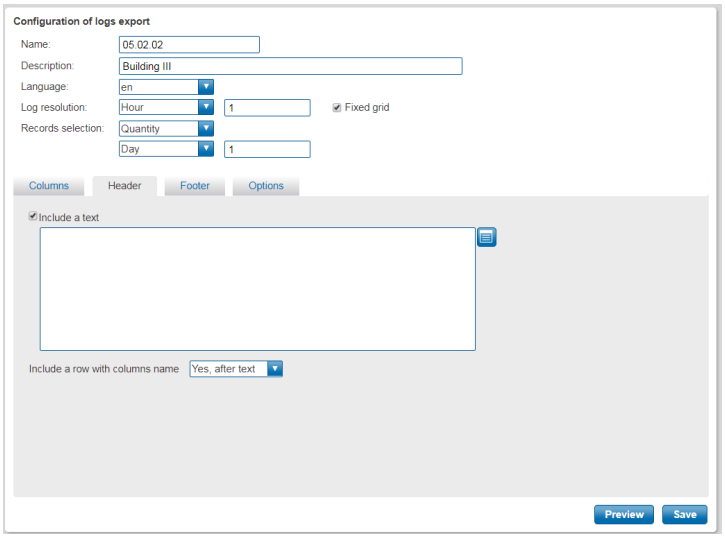



Fig. 113 Header view

Click on the button. A new window opens.

Fig. 114 Placeholder variables

Here you can create the relevant texts with the related placeholder variables. You type the text into the text field. To add a placeholder variable, click on the entry displayed in blue. The variable is added to the text field. After editing your text, click on “OK”.

Please note that when using the placeholder variable of the type “%logX;...”, you must replace the X with the line number of the data point that is entered.

#### 18.4.1.1.4 CSV configuration

On the “Options” tab you can enter settings for the CSV file.

**Columns separator**
In the “Columns separator” field you can select the separator (comma, semi-colon, tab, none).

**Finish record with a separator**
Here you can select whether the last data record should finish with a separator.

**Row separator**
Specifies which line break to use (Windows or Linux).

**Not available values**
Either the text from the field “Text for not available values” or the previous value (if available) can be displayed.

**Text for not available values**
Here you can specify which text to display if values are not available.

**File name**
Here you can specify the file name. If you want to use placeholder variables in the file name, click on the button next to this field .
A new window opens.
Here you can add the placeholder variables by clicking on the entries displayed in blue.

### 18.4.1.2 Web site

After you have validated the entries for the report name, the editor appears directly.

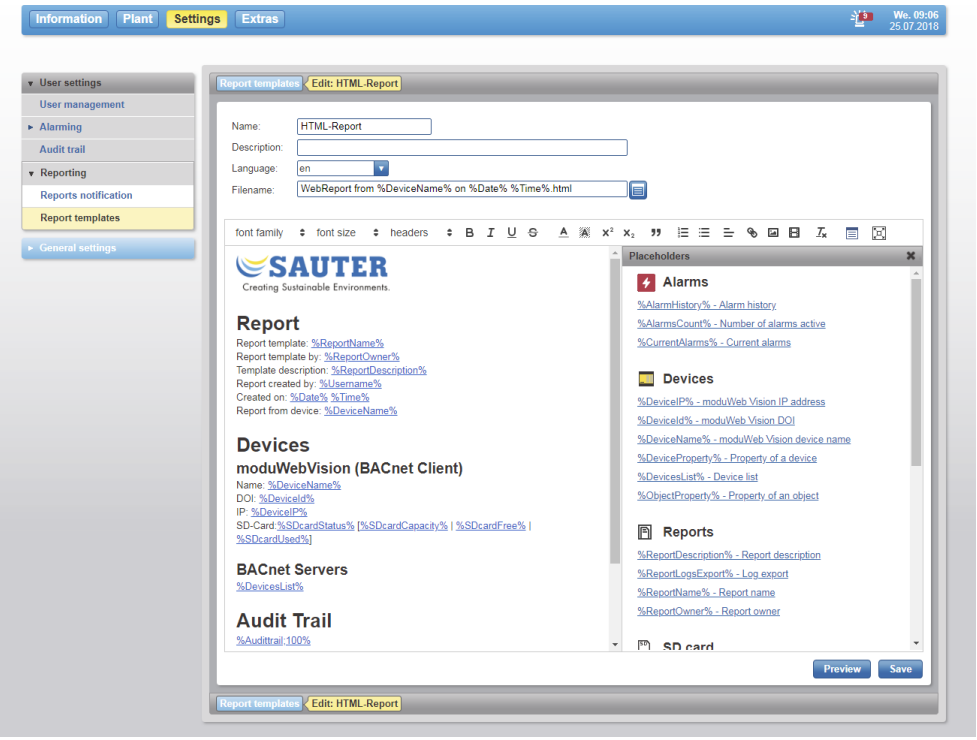



Fig. 115 Editor for HTML report templates

The name of the HTML file is specified in the “File name” field. The button provides various placeholders. It is also possible to specify the language, so that when defining the content of a particular placeholder, localised terms automatically appear in the selected language.

This is not an automatic translation!

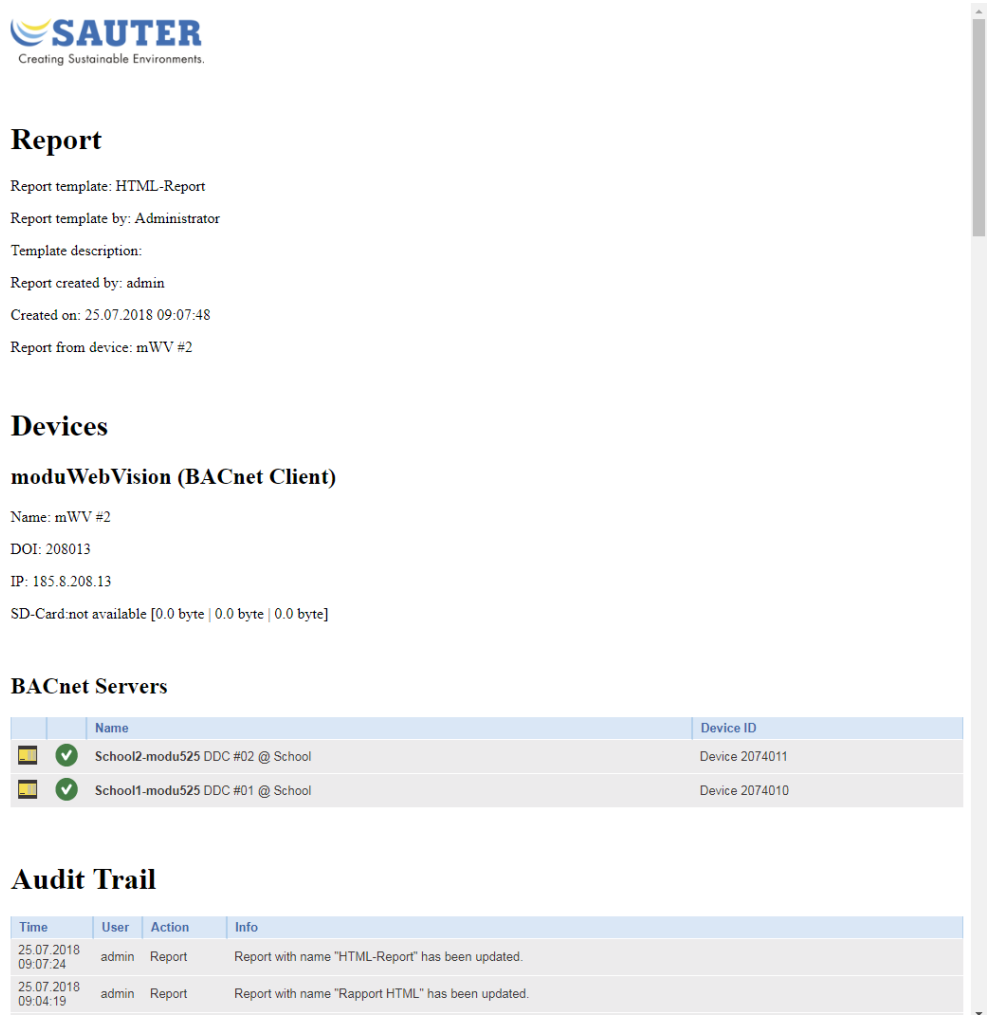
The various formatting options are listed in a bar above the text field. The supported placeholders are listed to the right of the text field. The placeholder view can be displayed and hidden using the button. When you click the placeholder it is pasted into the text field or a dialogue opens for you to make a selection.

| **Placeholders** | Action |
|---|---|
| **Alarms** | |
| %AlarmHistory% | The placeholder %AlarmHistory; 25% is inserted.<br>The flat list from the alarm log is displayed.<br>25 is the number of entries, and can be changed. |
| %AlarmsCount% | The placeholder %AlarmsCount% is inserted.<br>It states the number of active alarms. |
| %CurrentAlarms% | The placeholder %AlarmHistory; 25% is inserted.<br>The flat list from the current alarms is displayed.<br>25 is the number of entries, and can be changed. |

| **User** | |
|---|---|
| %AltPhone% | The placeholder %AltPhone% is inserted.<br>The alternative telephone number of the user who this report belongs to is displayed. |
| %Email% | The placeholder %Email% is inserted.<br>The e-mail address of the user who this report belongs to is displayed. |
| %MobilePhone% | The placeholder %MobilePhone% is inserted.<br>The mobile telephone number of the user who this report belongs to is displayed. |
| %UserFullName% | The placeholder %UserFullName% is inserted.<br>The full name of the user who this report belongs to is displayed. |
| %UserRole% | The placeholder %UserRole% is inserted.<br>The role of the user who this report belongs to is displayed. |
| %Username% | The placeholder %Username% is inserted.<br>The user name of the user who this report belongs to is displayed. |
| **Reports** | |
| %ReportDescription% | The placeholder %ReportDescription% is inserted.<br>The description that was entered for this report is displayed. |
| %ReportLogsExport% | A wizard opens where you can select the recording report template that you want to enter here.<br>The placeholder %ReportLogsExport;[GUID]% is inserted, where [GUID] is an internal reference. |
| %ReportName% | The placeholder %ReportName% is inserted.<br>The name of this report is displayed. |
| %ReportOwner% | The placeholder %ReportOwner% is inserted.<br>The name of this report is displayed. |
| **Devices** | |
| %DeviceIP% | The placeholder %DeviceIP% is inserted.<br>The IP address of this device is displayed. |
| %DeviceId% | The placeholder %DeviceId% is inserted.<br>The BACnet DOI of this device is displayed. |
| %DeviceName% | The placeholder %DeviceName% is inserted.<br>The name of this device is displayed. |
| %DeviceProperty% | A wizard opens for you to select one of the registered devices to enter here.<br>The placeholder %DeviceProperty;[DID];[PID]% is inserted, where [DID] is the BACnet DOI of the device and [PID] is the BACnet property ID to be displayed. |
| %DeviceList% | The placeholder %DeviceList% is inserted.<br>The list view of the registered devices is displayed. |
| %ObjectProperty% | A wizard opens for you to select one of the registered BACnet objects and the BACnet property to enter here.<br>The placeholder %ObjectProperty;[DID];[OID];[PID]% is inserted, where [DID] is the BACnet DOI of the device, [OID] is the BACnet object and [PID] is the BACnet property ID to be displayed. |

| | |
|---|---|
| **SD card** | |
| %SDCardCapacity% | The placeholder %SDCardCapacity% is inserted.<br>The capacity of the blank SD card is displayed. |
| %SDcardFree% | The placeholder %SDcardFree% is inserted.<br>The remaining capacity of the SD card is displayed. |
| %SDcardStatus% | The placeholder %SDcardStatus% is inserted.<br>The status of the SD card is displayed. |
| %SDcardUsed% | The placeholder %SDcardUsed% is inserted.<br>The capacity already used of the SD card is displayed. |
| **System** | |
| %AuditTrail% | The placeholder %AuditTrail; 25% is inserted.<br>The flat list from the audit trail is displayed.<br>25 is the number of entries, and can be changed. |
| %Date% | The placeholder %Date% is inserted.<br>The date when the report was created is displayed. |
| %Time% | The placeholder %Time% is inserted.<br>The time when the report was created is displayed. |

With the “Preview” button, you can generate the HTML page and view it directly in the browser.


SAUTER
Creating Sustainable Environments.

Report

Report template: HTML-Report

Report template by: Administrator

Template description:

Report created by: admin

Created on: 25.07.2018 09:07:48

Report from device: mWV #2

Devices

moduWebVision (BACnet Client)

Name: mWV #2

DOI: 208013

IP: 185.8.208.13

SD-Card:not available [0.0 byte | 0.0 byte | 0.0 byte]

BACnet Servers

| | | Name | Device ID |
|---|---|---|---|
| | | School2-modu525 DDC #02 @ School | Device 2074011 |
| | | School1-modu525 DDC #01 @ School | Device 2074010 |

Audit Trail

| Time | User | Action | Info |
|---|---|---|---|
| 25.07.2018 09:07:24 | admin | Report | Report with name "HTML-Report" has been updated. |
| 25.07.2018 09:04:19 | admin | Report | Report with name "Rapport HTML" has been updated. |

Fig. 116 Example of an HTML report

The “Save” button saves all the changes.

### 18.4.2 Reports notification

The report notification enables reports to be sent by e-mail at a specific time, or to have them uploaded to an FTP server.

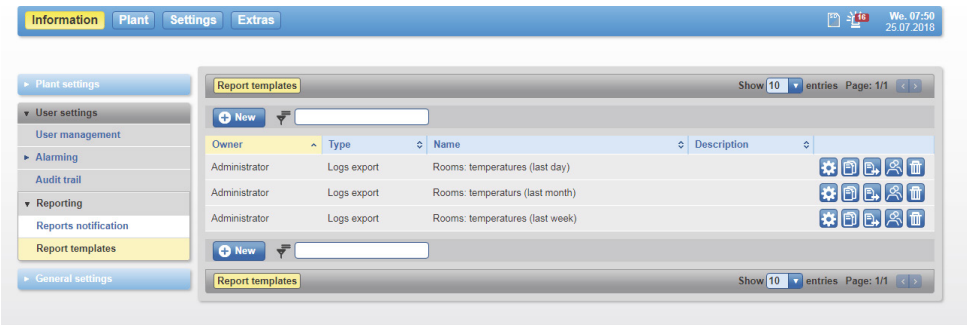



Fig. 117 List of report notifications

The list of notifications shows which notifications exist, the notification schedule according to which the reports are generated and sent, and the delivery service used.

You can use the buttons to edit notifications, duplicate them, manually generate and send them, change the owner, start/stop the notification schedule / or delete the notification.

To create a new notification, you proceed as follows:
Click on the New button.
An overview with the available reports opens.

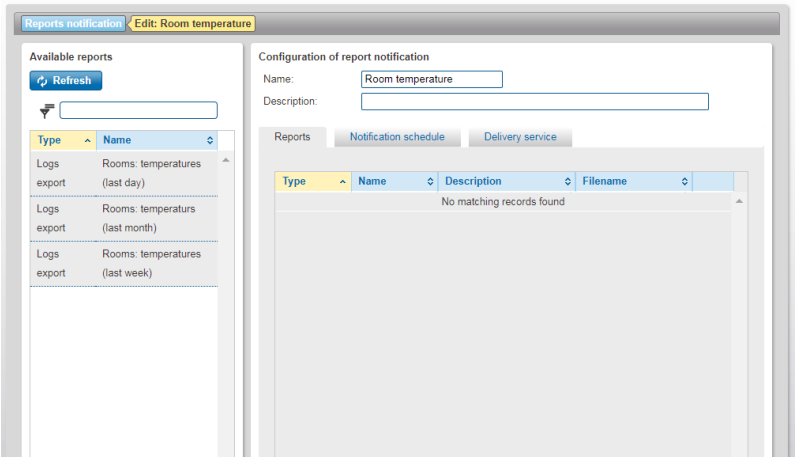



Fig. 118 Configuration view for a report notification.

First enter a name. To add a report, you can use drag and drop to pull the report from the selection list on the left into the right side of the page.

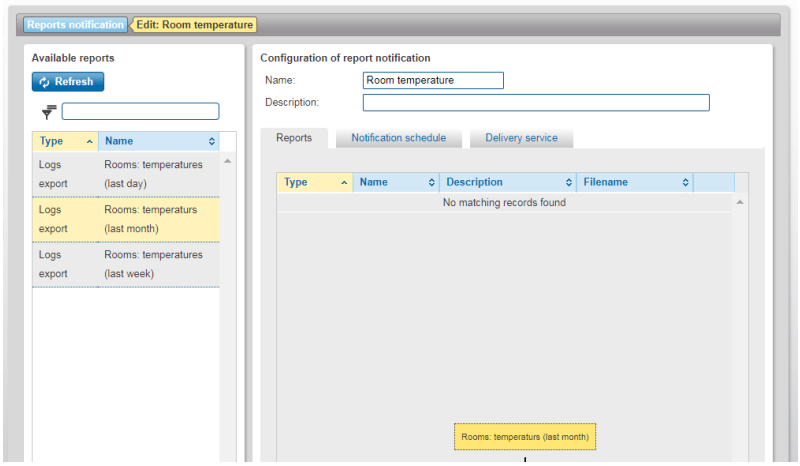



Fig. 119 Adding a report

**Notification schedule**

On the “Notification schedule” tab you can configure the notification times. To configure the notification schedule, click on the “Notification schedule” tab. Here you have the option to set the notification frequency at which the report is sent.

You have the following options:

- Scheduled notification

| | |
|---|---|
| Periodic | Frequency: Periodic<br>Each: 00 hour 00 minute<br>Start time: 00 : 00 |
| Daily | Frequency: Daily<br>Time: 09 : 00 |
| Weekly | Frequency: Weekly<br>Weekdays: Monday Tuesday Wednesday Thursday Friday Saturday Sunday<br>Time: 09 : 00 |
| Monthly | Frequency: Monthly<br>Day: 01<br>Time: 09 : 00 |

- Event-based notification
  - When mWV is started
  - After an alarm event in the profile

**Delivery service**
In the delivery service you can choose whether to send the report via e-mail or via an FTP connection.

**E-mail**
From the user list you select the users that you want to notify. You can select one or more users.
Missing addresses are indicated in red.
In the “Other e-mail addresses” field you can add additional e-mail addresses.

A text for the subject of the e-mail can be entered and the placeholders below can be added to it.

Using the option “Send all reports in one e-mail” limits the placeholders that are supported. If placeholders that are not supported are used, a message in red appears.

**FTP**
In order to save the files on an FTP server, the connection to the server must be configured.

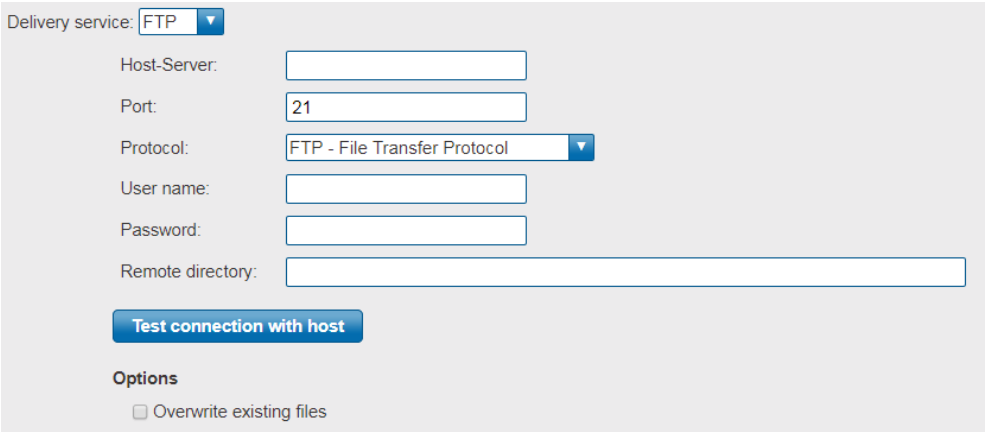



Fig. 120 Configuration of the FTP server

After entering the data, you can check the connection to the host by clicking on the button “Test connection with host”.

You also have the option to generate a CSV export directly from a simple chart.

To do this, click on “Information” -> “Charts” -> “Simple charts / logs”. You can schedule a CSV export by clicking on the icon.

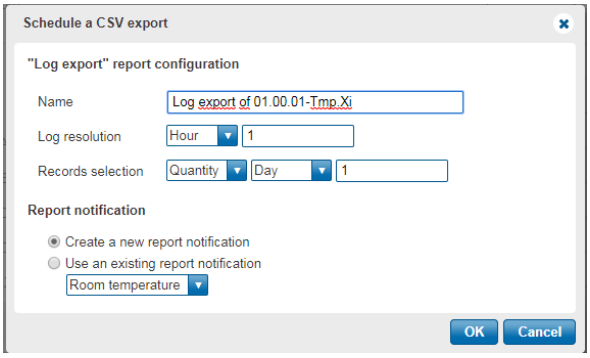



Fig. 121 Scheduling a CSV export

# 19. General settings

This section describes the “General settings” area in the main “Settings” menu.

## 19.1 Alarm settings

These settings are a precondition for setting up user notifications – about alarms, for example; see section 18.2.

### 19.1.1 Notification profiles

Users who are registered as administrators or specialists can create up to five different notification profiles in moduWeb Vision and give them any name they want.

In the main “Settings” menu, click on “General settings”, then “Alarm settings” and “Notification profiles”.

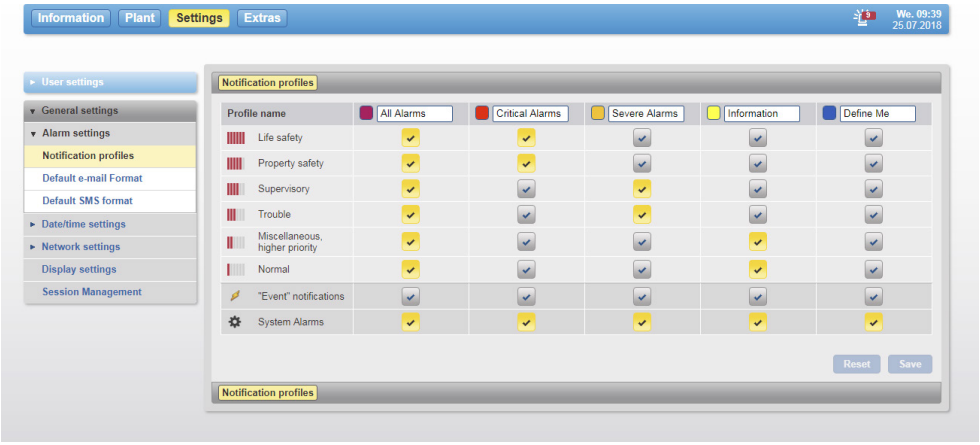



Fig. 122 Notification profiles

The five user profiles are shown in the top line of the table and are the same for all users. Within the profile, you can distinguish alarm notifications according to the six alarm priorities (see section 8.1.2).

Example: In the above window, only alarms with the “Life safety” (yellow symbol) priority are reported in the “Important” profile.

Change the names of the notification profiles if necessary.

For each profile, activate the symbols for the alarm priorities to be reported. Yellow symbol means active, blue symbol means inactive.

As standard, notifications only contain events of the type “alarm”. You can also include events of the type “event” in notifications by activating the checkbox “Event notifications”.
The system alarms can also be activated or deactivated in the same way as “Event notifications”.
Reset all changes using the “Reset” button.

To complete the process, click “Save”.

### 19.1.2 Default e-mail format

Users who are registered as administrators can configure the standard format for e-mails here.

In the main “Settings” menu, click on “General settings”, then “Alarm settings” and “Default e-mail format”.

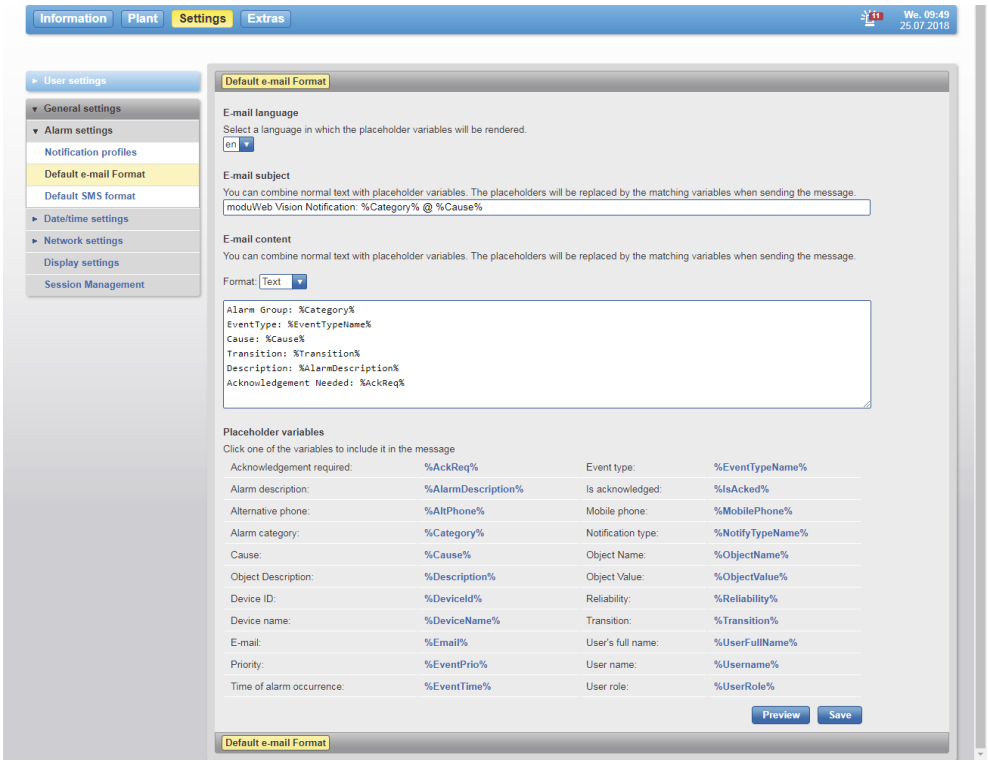



Fig. 123 Default e-mail format

For “E-mail language”, select the language which is used when the placeholder variables are replaced.
For “E-mail subject”, enter the text for the subject line and for “E-mail content”, enter the content.
A combination of running text that is entered and “placeholders” is defined (placeholders are the blue terms below “Placeholder variables”). The placeholders stand for the different dynamic parameters of, for example, an alarm and they are replaced by the current content of the variable when the e-mail is sent. You can add placeholders to the subject or content by clicking on the blue parameter text at the current cursor position.

Click on “Preview” to see an example of the configuration.

To complete the process, click “Save”.

### 19.1.3 Default SMS format

Users who are registered as administrators can configure the standard SMS format here.

In the main “Settings” menu, click on “General settings”, then “Alarm settings” and “Default SMS format”.

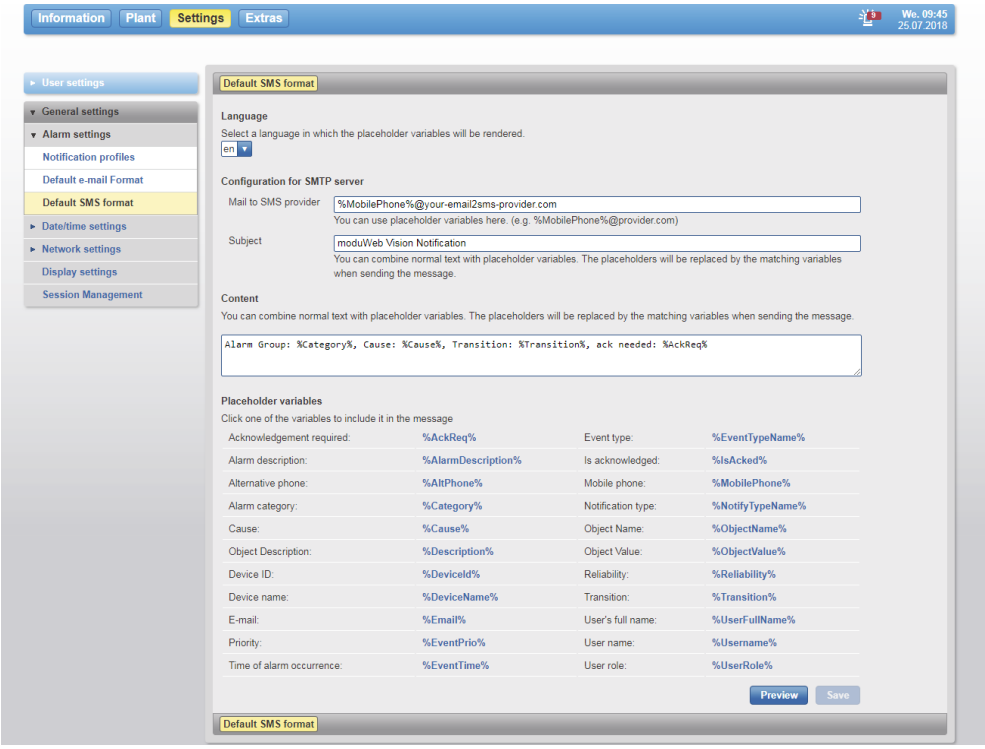



Fig. 124 Default SMS format

SMS notifications are sent by e-mail to an SMS gateway. The SMS gateway forwards the content of the e-mail in the form of an SMS to the user’s mobile phone number that was entered in the user administration.

The process for converting e-mails to SMS via an SMS gateway may differ, depending on the telecommunications provider. You may need to contact the provider.

The e-mail address of the SMS gateway is entered next to “Mail to SMS provider”.

For “Language”, select the language which is used when the placeholder variables are replaced.

For “Subject”, enter the text for the subject line and for “Content”, enter the content of the SMS.
A combination of running text that is entered and “placeholders” is defined (placeholders are the blue terms below “Placeholder variables”). The placeholders stand for the different dynamic parameters of, for example, an alarm and they are replaced by the current content of the variable when the SMS is sent. You can add placeholders to the subject or content by clicking on the blue parameter text at the current cursor position.

Click on “Preview” to see an example of the configuration.

To complete the process, click “Save”.

## 19.2 Date/time settings

The following are set in the Date/time settings menu:

- Date and time
- Time server

The menus for setting the date and time are visible only to administrators and specialists.

### 19.2.1 Date/time

The moduWeb Vision system time can be set using three different sources.

In the main “Settings” menu, click on “General settings”, then “Date/time settings” and “Date/time”.

Fig. 125 Date/time, “Internal” selected as system time source

Select the source for the moduWeb Vision system time:

- Internal
  Set the time and date manually.
- NTP
  moduWeb Vision regularly synchronises with the NTP servers defined here. This is the best option when an NTP server is available and moduWeb Vision is the only management system in use.
  Enter the required NTP settings in the fields.
- BACnet
  The time is taken from the BACnet synchronisation messages. This is the best option when BACnet synchronisation is available and synchronised with a reliable source.

To complete the process, click “Save”. The action is executed after you respond to a confirmation prompt.
It is very important that the time is the same throughout the system. Make sure all the devices have the same time source.

Changes of less than 5 minutes are regarded as corrections. In this case, the time is adjusted gradually to prevent large jumps in time. If changes of over 5 minutes are made, a restart is triggered.

If there is an exclamation mark by the time in the status indicator, the moduWeb Vision system time and that of the PC are more than 5 minutes out of sync.

The time synchronisation with CASE Engine and CASE Sun is only possible in BACnet mode. “Internal” and “NTP” do not allow time synchronisation commands.

### 19.2.2 Time server

moduWeb Vision can regularly send the system time to the registered devices. You can make various settings for this here.

In the main “Settings” menu, click on “General settings”, then “Date/time settings” and “Time server”.

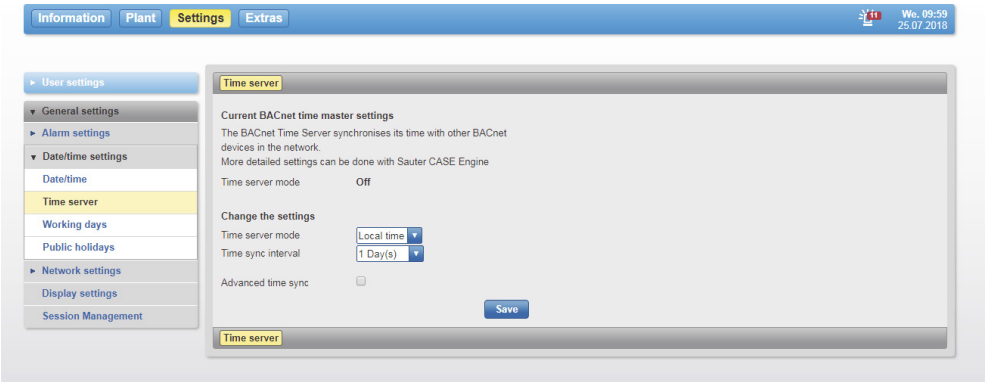



Fig. 126 Time server

Choose how the system time is sent to the registered devices:

- Off
  The moduWeb Vision system time is not sent to the registered devices.
- Local time
  moduWeb Vision sends the local time to the registered devices.
- UTC time
  moduWeb Vision sends the UTC time (coordinated universal time) to the registered devices. The recipients calculate the local time with the UTC deviation for their time zone.

If you select local time or UTC time, you can select the synchronisation interval. If the “Advanced time sync” checkbox is selected, you can also specify the time of synchronisation.

To complete the process, click “Save”.

### 19.2.3 Working days

Under “Working days” you can set the working hours and the working days.
To make these settings, click on “General settings” in the main menu and then on “Date/time settings” and “Working days”.

Fig. 127 Setting the working days

### 19.2.4 Public holidays

Here you can set the public holidays.
Click on “General settings”, then “Date/time settings” and “Public holidays”.
You can use the buttons to switch between the monthly and yearly views.

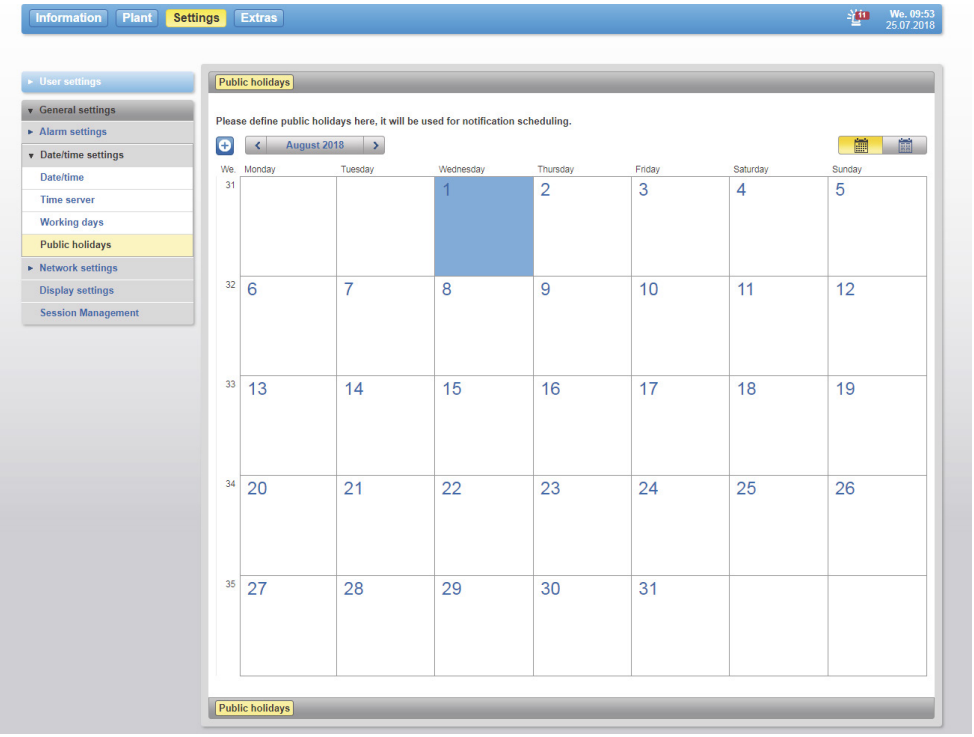



Fig. 128 Public holiday

To create a public holiday, click on the button. A new window opens.

Fig. 129 Setting a public holiday

Here you can set the public holiday using the date fields.
After you click on “Save”, the public holiday appears in blue on the calendar. Alternatively, you can generate a new entry directly by clicking on a day. This function is only available in the monthly view.

This calendar does not have a connection to the BACnet calendar from the automation stations.

## 19.3 Network settings

The following is set in the network settings menu:

- IP settings
- Proxy settings
- Access control list
- HTTPS settings
- SMTP server settings
- SMS server settings

The network settings menus are only available to users who are logged in as administrators.

### 19.3.1 IP settings

In the main “Settings” menu, click on “General settings”, then “Network settings” and “IP settings”.

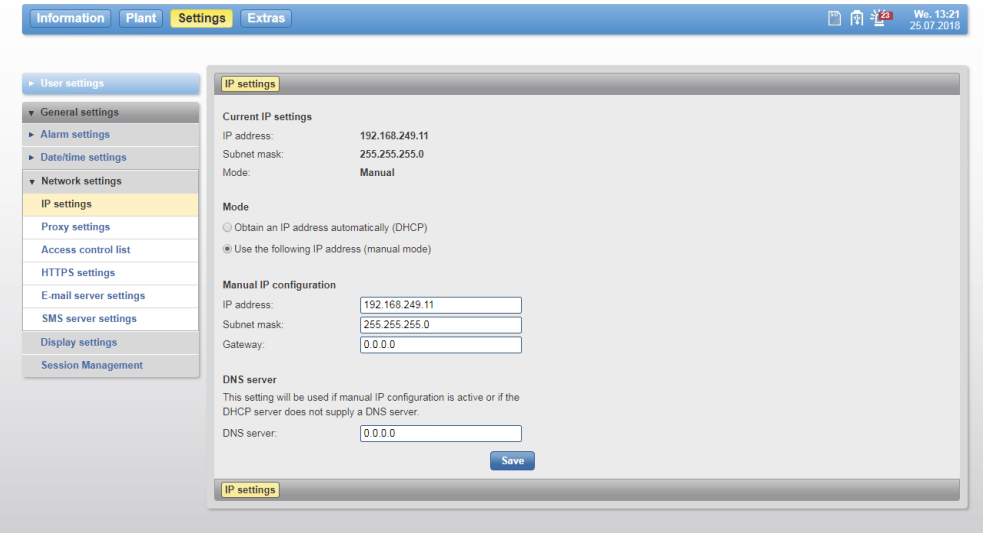



Fig. 130 IP settings

The IP addresses of BACnet devices should not be changed without first consulting the system engineer or network administrator. It must be ensured that the settings are correct.

Under “Mode”, select whether the IP address is sourced automatically (DHCP) or whether you want to use manual IP entry.

If you select manual IP entry, the relevant values must be entered.

You may also have to enter the DNS server address.

To complete the process, click “Save”. The action is executed after you respond to a confirmation prompt.

### 19.3.2 Proxy settings

In the main “Settings” menu, click on “General settings”, then “Network settings” and “Proxy settings”.

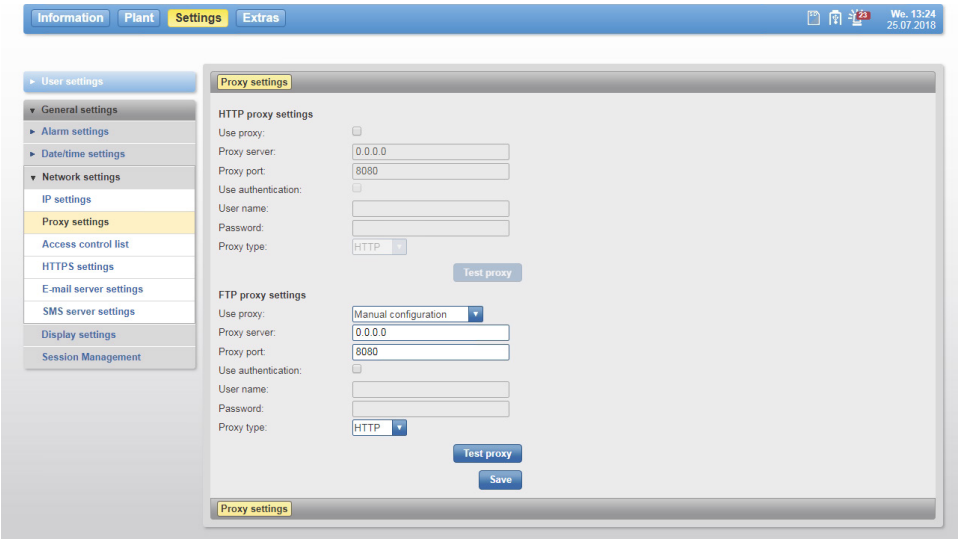



Fig. 131 Proxy settings

The proxy settings can be set all together or individually for HTTP or FTP.

**HTTP proxy settings**

Select whether a proxy is to be used (activate the “Use proxy” checkbox).

Enter the corresponding values.
To complete the process, click “Save”.

**FTP proxy settings**

To specify an FTP proxy, select the corresponding option in the “Use proxy” selection list:

- “Use HTTP proxy setting” to use the settings of the HTTP proxy server.
- “Manual configuration” to make different settings

Enter the corresponding values.
To complete the process, click “Save”.

You must consult the network administrator to ensure that the settings are correct.

### 19.3.3 Access control list

The access control list is a further security measure for the web server. Access is enabled or blocked based on the IP address. There is also the option to block an enabled IP address after repeated failed logins.
In the main “Settings” menu, click on “General settings”, then “Network settings” and “Access control list”.

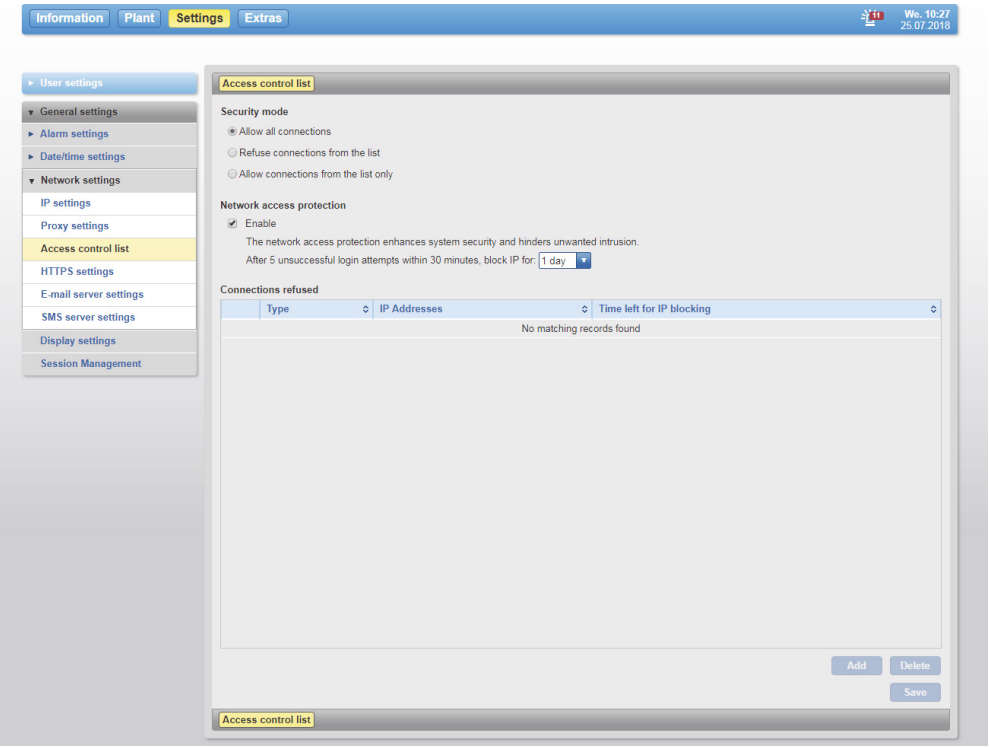



Fig. 132 Access control list

**Security mode**

The following security modes are available:

- Allow all connections (standard): The moduWeb Vision server is accessible to everyone who can access the corresponding network.
- Refuse connections from the list: All IP addresses or IP ranges in the list are blocked.
- Allow connections from the list only: The list contains only permitted IP addresses.

To add an IP address or an IP address range, click on the “Add” button. The dialogue for entering the IP address or the IP address range opens.

The “Add” button is only available when the option “Refuse connections from the list” or “Allow connections from the list only” is activated.

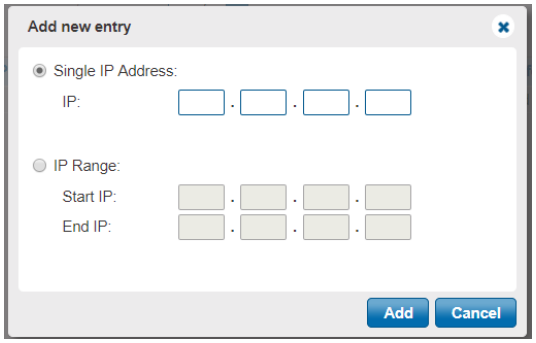



Fig. 133 Dialogue for entering IP addresses or IP address ranges.

**Network access protection**

The network access protection ensures that moduWeb Vision is better protected against what are known as brute force attacks. Enabling this function makes it possible to block the user after 5 failed login attempts. The blocking times are: 1 day, 1 week or forever.

When an IP address is blocked, only the administrator can remove the block. This is done by selecting the IP entry and pressing the “Delete” button.

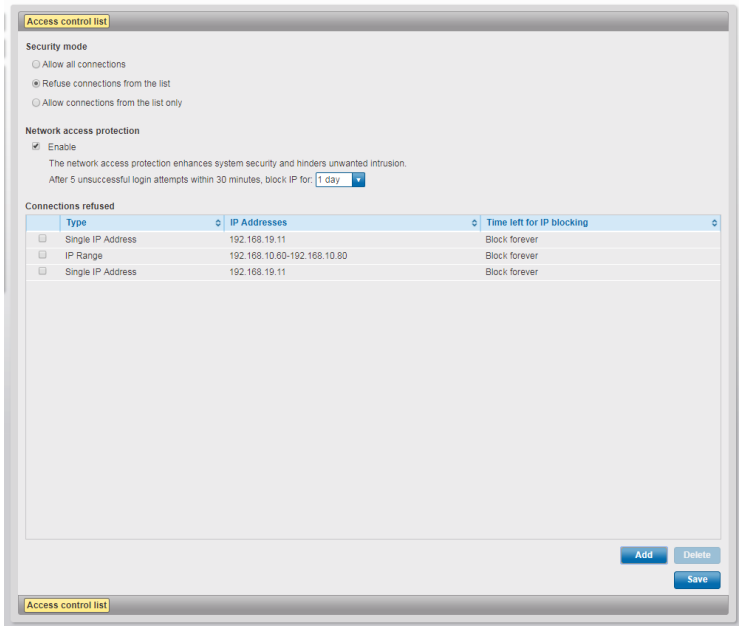



Fig. 134 Access control list with blocked IP addresses

### 19.3.4 HTTPS settings

Certificates are required for encrypted navigation. The certificate supplied ex works can be replaced by loading a CA-compliant certificate from a file or by generating a self-signed certificate locally.
A self-signed certificate is a certificate that has not been validated by a recognised CA (Certification Authority).

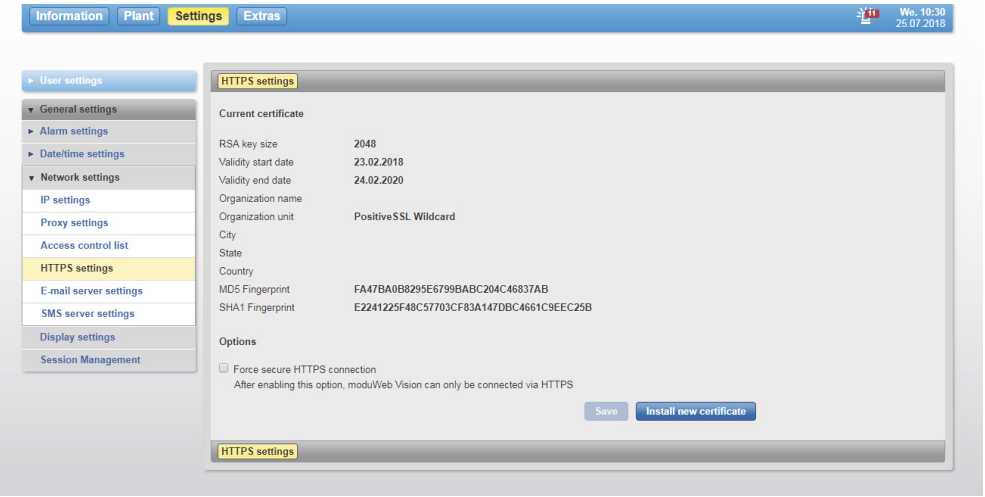



Fig. 135 Certificate view

Here, you can activate or deactivate the option of encrypting all communication with the web server. When the option is active, the URL address must always start with https:\\.
The “Install new certificate” button opens a dialogue for choosing between loading a file or generating a certificate in the device.

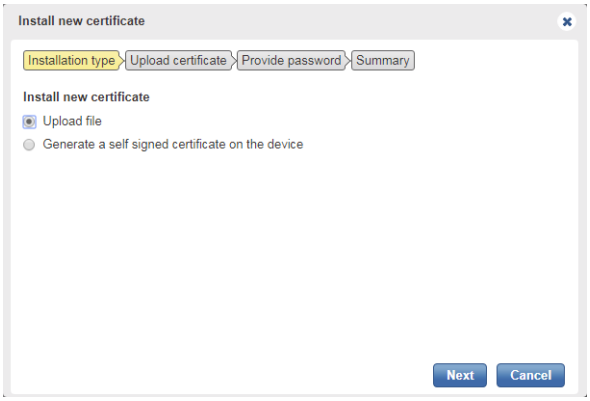



Fig. 136 Selection for a new certificate

### Loading a certificate file

If moduWeb Vision is connected to an intranet which only allows devices with an in-house certification or a CA certification, it is possible to load these certificates. The file types *.o12 and *.ptk12 are supported for this. Such files are generally supplied by the network operator or a CA.
The file must first be read by the station.

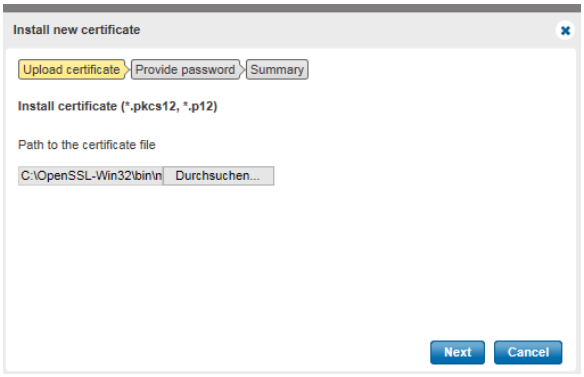



Fig. 137 Reading a certificate file

Certificate files are password-protected.
Enter the password so that you can open and read the file.

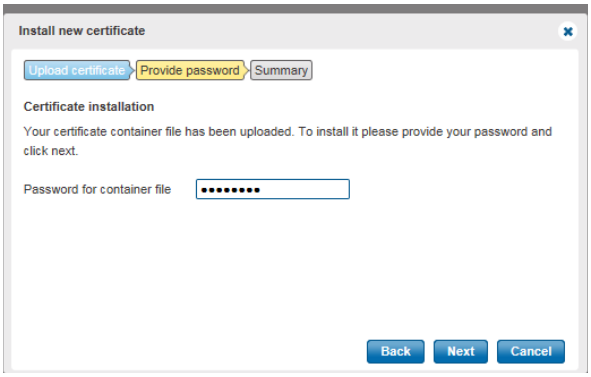



Fig. 138 Entering the password for enabling the certificate

Before installation, a summary of the certificate content is displayed. After the installation is started, the procedure must be confirmed one more time. After the restart, the certificate has been loaded.

**Self-signed certificates**

You use the following dialogue to generate a new certificate, e.g. when the current one has expired.
The input screen is for entering various data that is listed in the certificate. The certificate can be displayed easily using a browser.

Fig. 139 Input screen for a self-signed certificate

Click the “Next” button to start the generating process. Before installation, a summary of the certificate content is displayed, including the MD5 and SHA1 fingerprints.

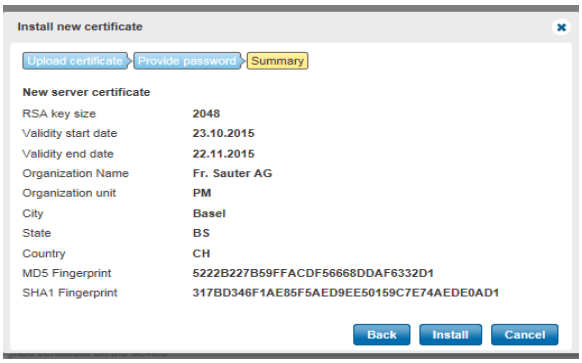



Fig. 140 Summary of the certificate content

Click the “Install” button to start the installation.

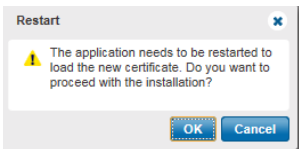



Fig. 141 Application restart

A restart is necessary to load the new certificate.
Confirm the query with the “OK” button.

When the restart is complete, the certificate has been loaded.

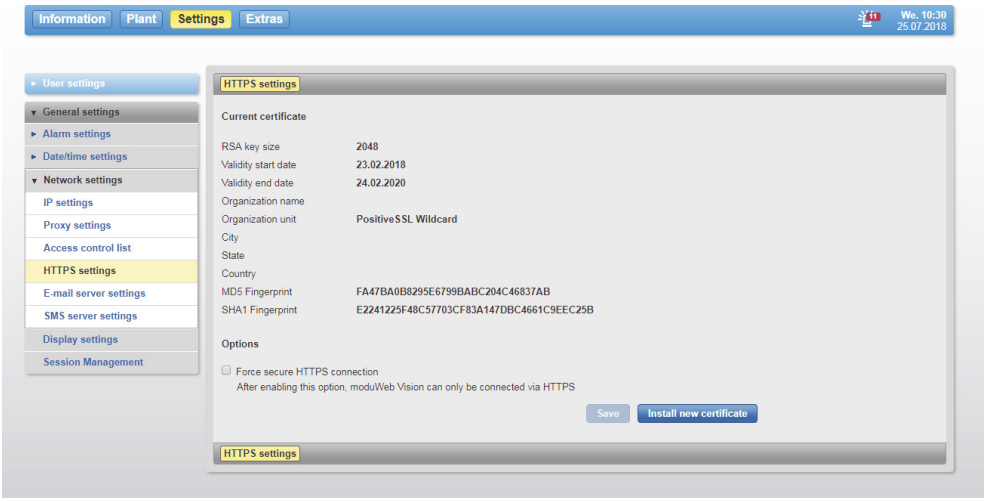



Fig. 142 Current valid certificate

### 19.3.5 SMTP server settings

Before notifications can be sent via e-mail and SMS, the mail server must be configured. Please log in with administrator rights to configure the SMTP server.

In the main “Settings” menu, click on “General settings”, then “Notification settings” and “SMTP server settings”.

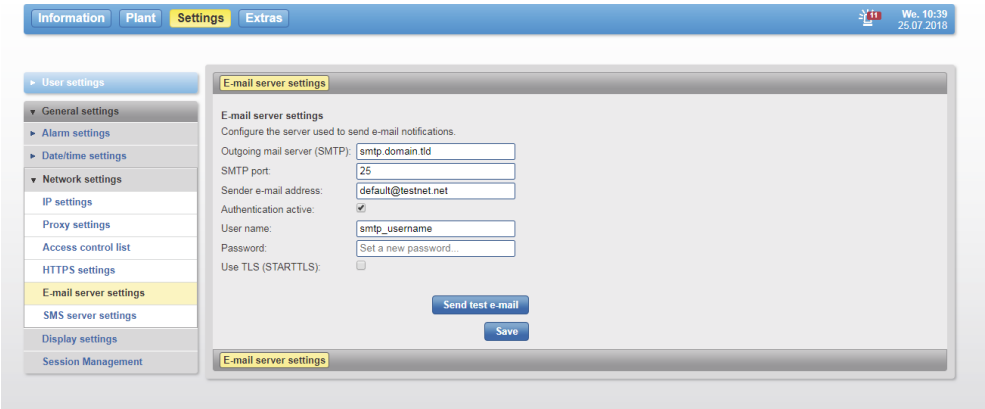



Fig. 143 Mail server

Fill in the dialogue according to the conditions in your network.

To complete the process, click “Save”.

You can click on “Send test e-mail” to send a test e-mail to the logged on user’s address. Before sending, you need to respond to a confirmation prompt.

### 19.3.6 SMS server settings

Before notifications can be sent via SMS, the transmission channel must be configured.

- You must log in with administrator rights to configure this.
- In the main “Settings” menu, click “General settings” in the menu tree, then “Network settings” and “SMS server settings”.

The following types of transmission are available:

- Use e-mail server settings
  The existing SMTP sever is used for sending e-mails
- Use SMTP server
  This allows an alternative SMTP server to be configured. The use of an SMS gateway is intended as a solution here.
- Use SMPP server (v3.4)
  This is based on a technology that must be supported by the ISP provider. SMPP stands for Short Message Peer-to-Peer and allows short message data to be sent via TCP/IP to an SMSC (Short Message Service Centre), which forwards the message by SMS.

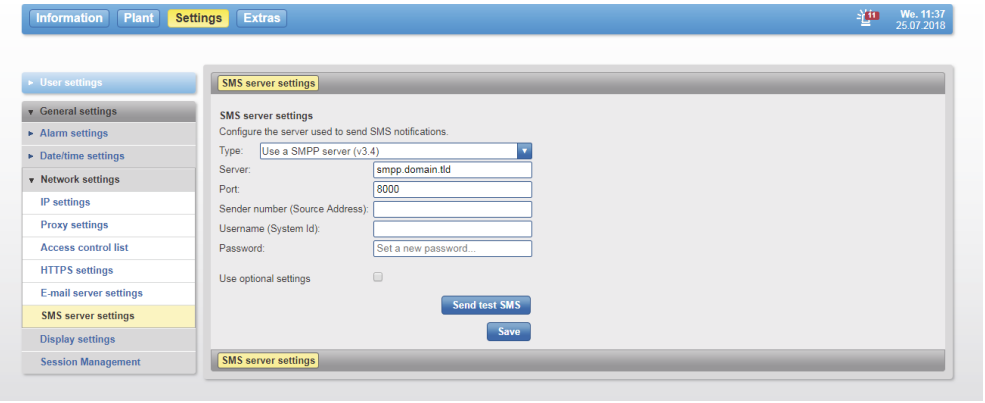



Fig. 144 SMPP settings for SMS notification

## 19.4 Display

This setting defines the update interval (query times) and can influence the system workload.

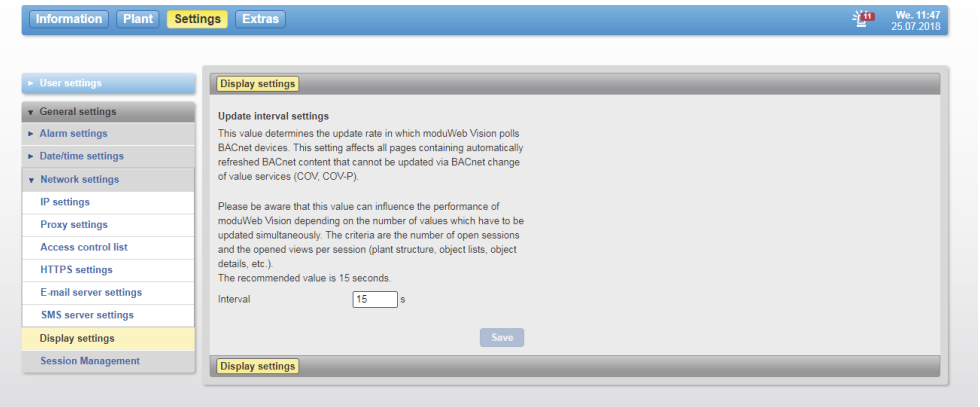



Fig. 145 Display settings

## 19.5 Session management

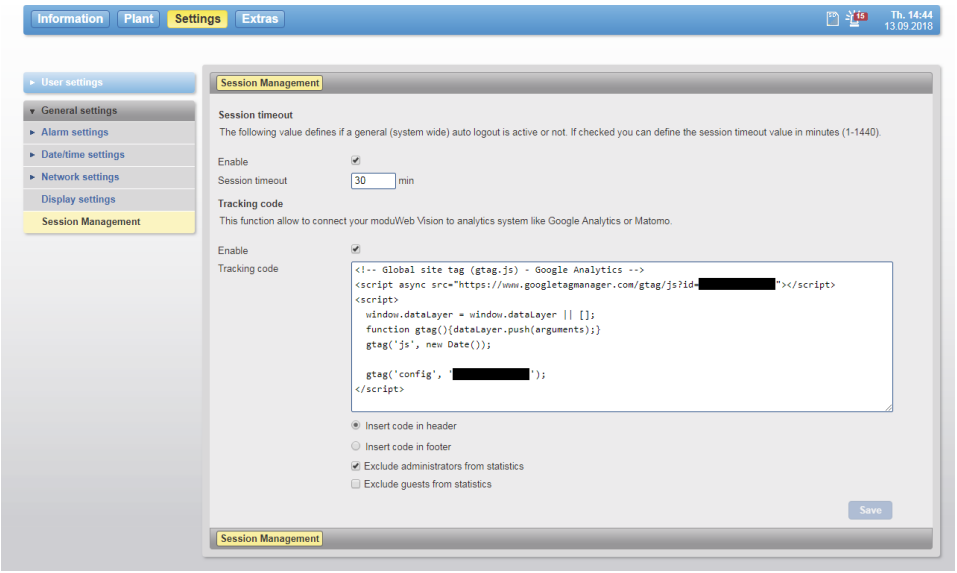



Fig. 146 Session manager

In the session management settings you can incorporate the session time and a tracking code for analytics services such as Google Analytics or Piwik.

### 19.5.1 Setting the session time

The session time can be used to configure the timed logout of a user.

If you select the “Enable” checkbox, the inactive user is automatically logged off after the expiration of the time that is specified in the input field below.

As a result of this setting, the default setting “Keep me logged in” on the login page is no longer considered.

### 19.5.2 Using a tracking code

You also have the option to use a tracking code to connect to analytics solutions such as Google Analytics or Piwik.

To do this, activate the “Enable” checkbox above the input field.

The input field is enabled.

Now enter the tracking code in the text field.Use the option “Insert code in header” or “Insert code in footer” under the input field to select whether the code is to be incorporated into the header row or the footer row.

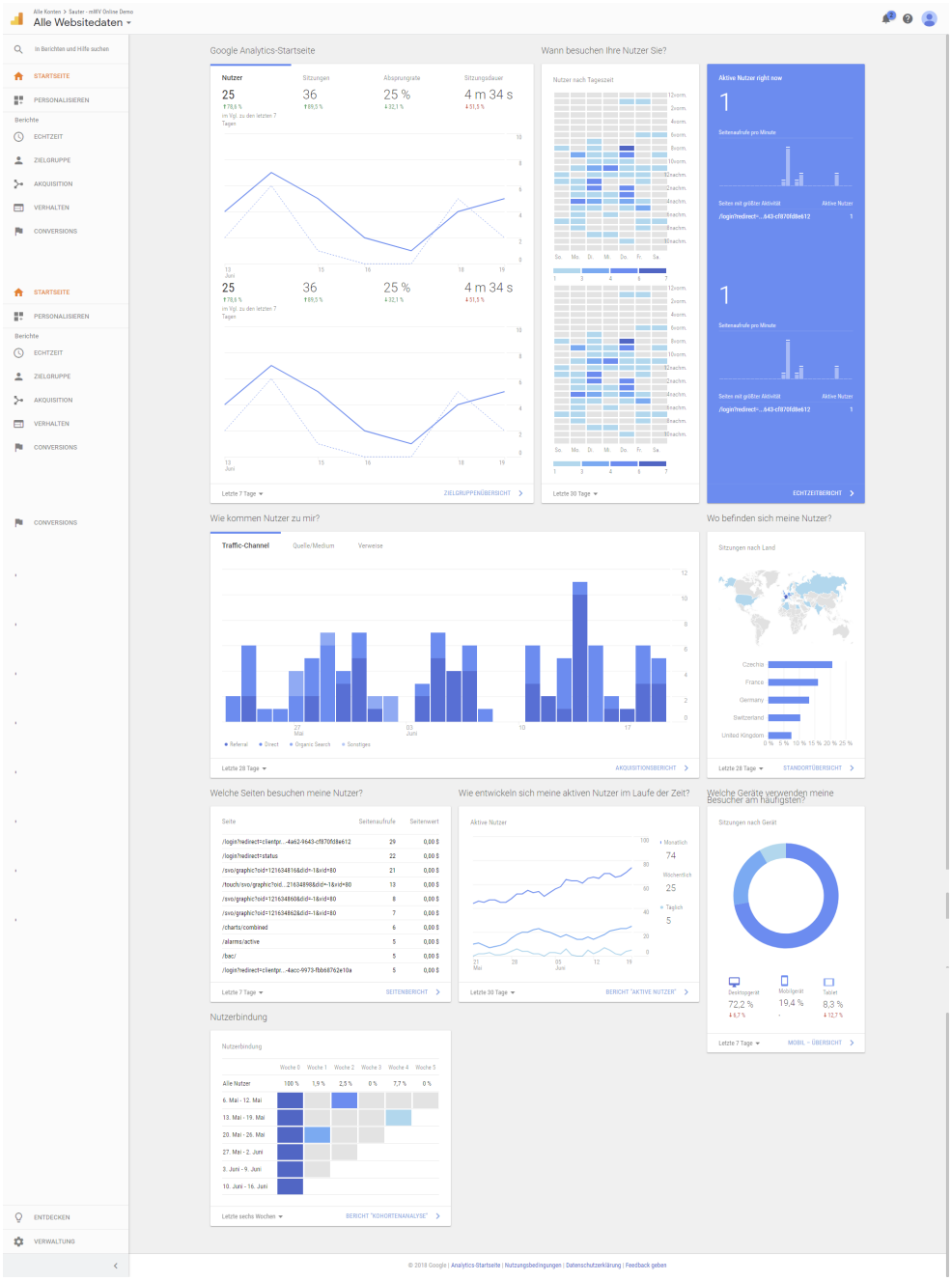



Fig. 147 Example: Google Analytics © 2018 google

# 20. Extras

The main Extras menu contains the following functions.

- “Backup/Restore”: Back up and restore the system configuration
- “Storage”: Type and status of the storage media: SD card for saving historical data, USB device for backing up data and internal memory
- “Weather module”: Setting the system location for the weather module
- “Undelivered e-mails”: Overview of the undelivered e-mails
- “Restart device”: Restart moduWeb Vision
- “Reset”: Reset the system configuration and load the original configuration

## 20.1 Backup/Restore

You can back up the system configuration here and restore it if necessary.

ⓘ Only administrators can use the backup and restore functions.

### 20.1.1 Backup

The data can be backed up on a connected USB device or downloaded via HTTP. The backup on the USB memory contains both the system configuration and the historical data. Since the data volume of the historical data can be very large, no historical data is transferred during HTTP backup.

ⓘ If a USB device is connected, this is indicated by the icon in the status display. Historical data can only be backed up on a USB device.

ⓘ The USB interface of moduWeb Vision supplies the connected USB device with up to 250 mA. That is usually sufficient for USB memory sticks. USB hard drives usually require an additional power supply (external power supply unit or USB hub with additional power supply).

### Backup on USB device

In the main “Extras” menu, click “Backup/Restore” and then “Backup”. The action is executed after you respond to a confirmation prompt.

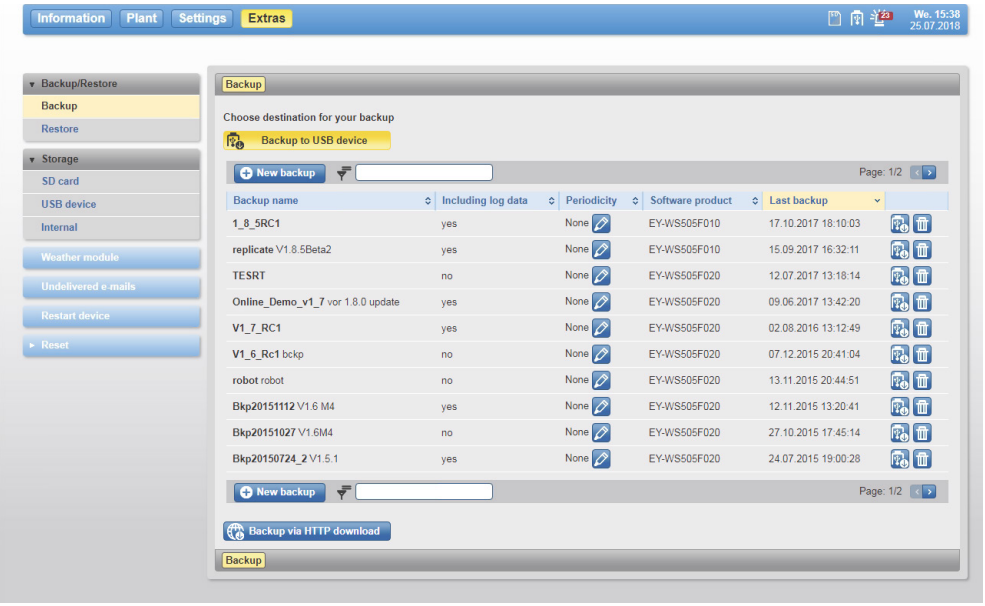



Fig. 148 Backup, USB device selected as destination

Click on the “Backup to USB device” icon to select the backup destination (this is only possible when a USB device is connected).
Click “New backup” to create a new backup. Enter a name and a description in the pop-up window. If you want regular backups (periodicity), select “Daily”, “Weekly” or “Monthly”. If you select “Including log data”, the log data is also backed up. If “Perform backup automatically after saving” is marked, the data backup is carried out after “Save” is clicked

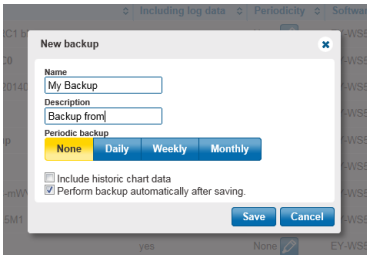



Fig. 149 Creating a new data backup

If you have selected a periodicity, the USB device must at least be connected at the time when the backup is carried out.
To complete the process, click “Save”. The backup job is created.

The list shows all existing backups. The columns show the name and description of each backup, the device names and whether the log data is included in the backup. The selected periodicity is also shown; you can change it by clicking on the icon. The second-last column shows the date of the last backup.
You can click “Backup” in the last column to carry out the backup immediately.

Click on the icon to delete the backup.

**Backup via HTTP download**

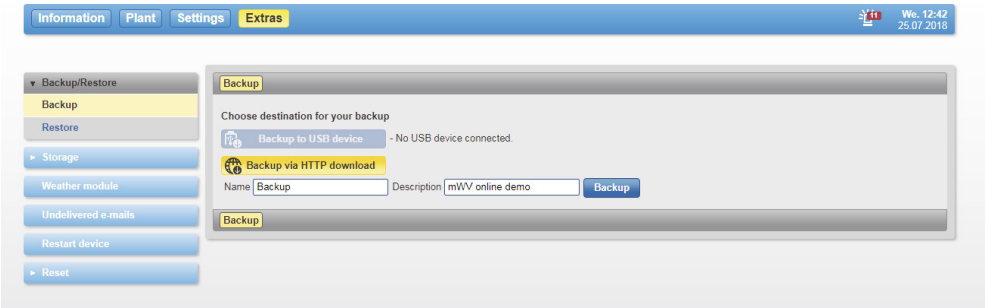



Fig. 150 Backup, HTTP selected as destination

Click on the “Backup via HTTP download” icon to select the backup destination.

Enter a name and a description and then click on “Backup”.

In the pop-up window of the operating system that then appears, select “Save” or “Save as” (in order to determine the save location for the download).

The http storage includes only project data and no historical data (SD card contents)

### 20.1.2 Restoring data

The data can be restored from a connected USB device or uploaded via HTTP.

A backup can be restored only on the same software variant with which it was created. This means that it is not possible to restore a backup created with the (small) variant EY-WS505F010 to the (large) variant EY-WS505F020 or vice versa. However, backup files created with moduWeb Vision 1.0 (EY-WS500F005) can be restored with both software variants of version 1.2 (EY-WS505F010 and EY-WS505F020).

### 20.1.2.1 With USB device

In the main “Extras” menu, click “Backup/Restore” and then “Restore”.

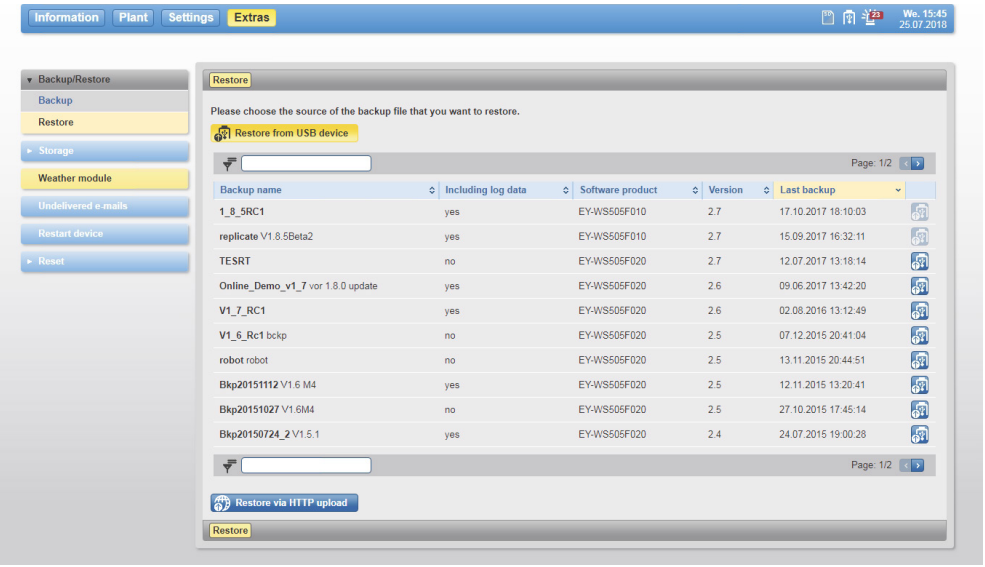



Fig. 151 Restore, USB device selected as source

Click on the “Restore from USB device” icon to select the retrieval source (this is only possible when a USB device is connected).

All the existing backups are shown in a list. The list is the same as the one described in section 20.1.1.

Click “Restore” for the backup that you want. You can make a backup either with or without historical data. The action is executed after you respond to a confirmation prompt.

A window appears when the data has been successfully restored. After the restore moduWeb Vision is restarted automatically.
Restoring and restarting may take a few minutes.

### 20.1.2.2 Via HTTP upload

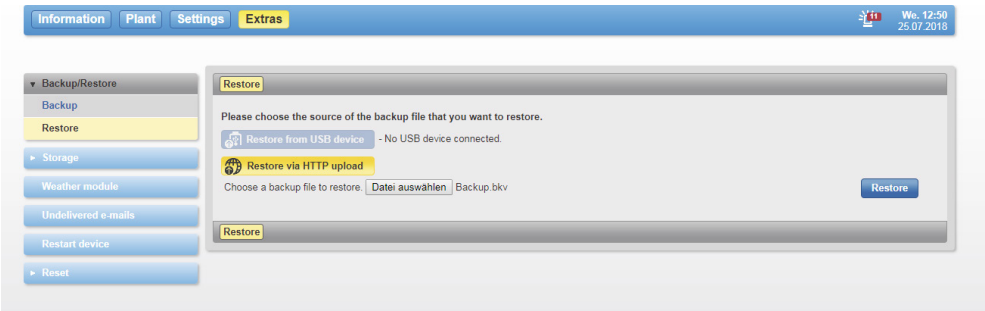



Fig. 152 Restore, HTTP selected as source

Click on the “Restore via HTTP download” icon to select the retrieval source.

If you click on “Browse” a window appears. In this window, select the path of the folder where the backup file is saved. Select the required backup file and click on “Open”. The file is selected.

Backup files have the extension “.bkv”.

Click on “Restore”. The recovery is started.

A window appears when the data has been successfully restored. After the restore moduWeb Vision is restarted automatically.
Restoring and restarting may take a few minutes.

## 20.2 Storage

This menu contains information on the existing data storage and its status.

### 20.2.1 SD card

You can only record log data from moduWeb Vision if an (optional) SD card is inserted.

⚠ The SD card may only be inserted by trained personnel.

In the main “Extras” menu, click “Storage” and then “SD card”.

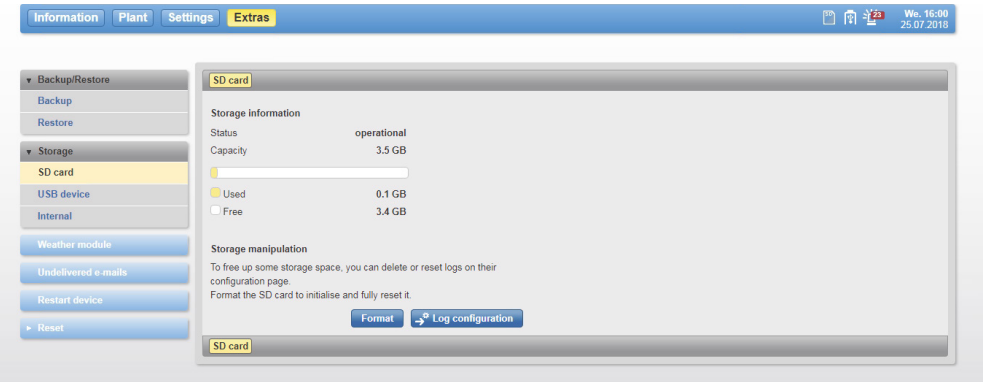



Fig. 153 SD card

**Capacity**
The capacity of the inserted SD card is displayed, along with the amounts of occupied and available memory.

**Formatting the SD card**
When you format the SD card, it is completely wiped and re-initialised. All the data on it is lost.

Start formatting with “Format”. The action is executed after you respond to a confirmation prompt. This may take several minutes.

ⓘ A new SD card must still be formatted even if it has already been formatted outside moduWeb Vision.

**Freeing up memory**
To free up memory on the SD card, you must reset or delete log data.

Click “Log configuration” to go to the “Simple charts / logs” menu in the main “Settings” menu (see section 15.1).
Here, you can reset selected

- logs (all recorded data is deleted, but the configuration remains and logging begins again immediately) or
- delete them (the configuration and all recorded data are lost).

### 20.2.2 USB device

For data backup, a USB device must be connected to moduWeb Vision.

In the main “Extras” menu, click “Storage” and then “USB device” in the menu tree.

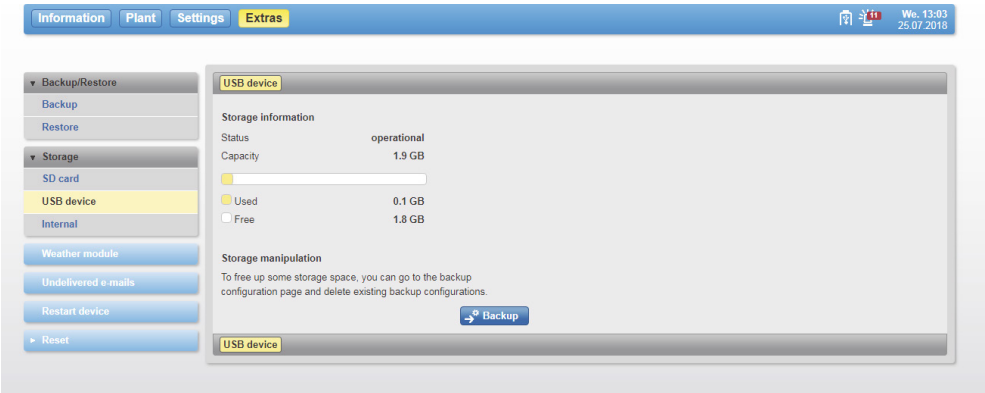



Fig. 154 USB device

**Capacity**

The capacity of the connected USB device is displayed, along with the amounts of occupied and available memory.

**Freeing up memory**

To free up memory on the USB device, data backups that were already saved to the device can be deleted.

Click “Backup” to switch to the “Backup/Restore / Backup” menu in the main “Extras” menu (see section 20.1.1).
Here you can delete data backups that exist on the device.

Other data saved to the device cannot be deleted using this method. To do this, it may be necessary to connect the USB device to a PC.

### 20.2.3 Internal

The configuration data of the system is saved in the internal memory of moduWeb Vision. This also includes documents saved in the plant structure, for example.

In the main “Extras” menu, click “Storage” and then “Internal”.

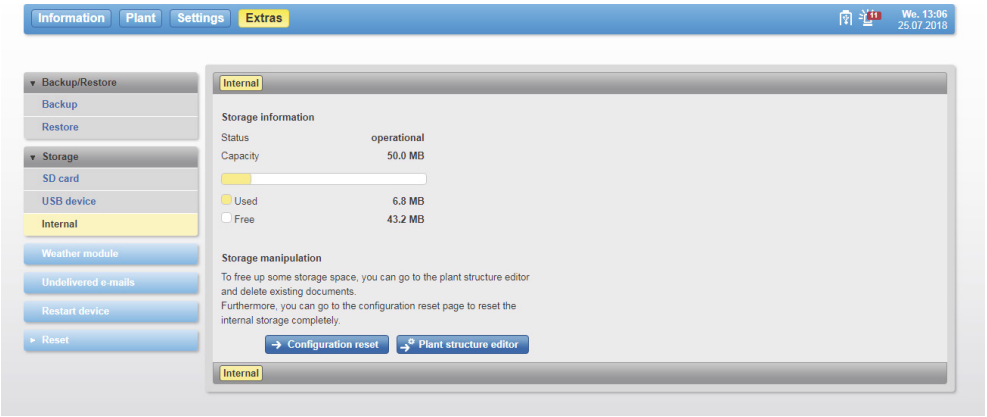



Fig. 155 Internal

**Capacity**

The capacity of the internal memory is displayed, along with the amounts of occupied and available memory.

**Freeing up memory**

The following options exist for freeing up memory:

Click “Configuration reset” to switch to the “Reset / Configuration reset” menu in the main “Extras” menu (see section 20.6.1).
Resetting the configuration causes practically the entire internal memory to be freed up.

**CAUTION**

moduWeb Vision is no longer operational after this process. If you want to re-use the data, you must save it and restore it again later (see section 20.1). Observe the confirmation prompt.

Click “Plant structure editor” to switch to the “Plant settings / Plant structure editor” menu in the main “Settings” menu (see section 17). You can delete documents that are no longer required in order to free up memory.

## 20.3 Weather module

To call up the weather module, click on “Extras” in the main menu and then on “Weather module”. In the weather module, a user can display the weather for the corresponding location. Authorised users can change the location.

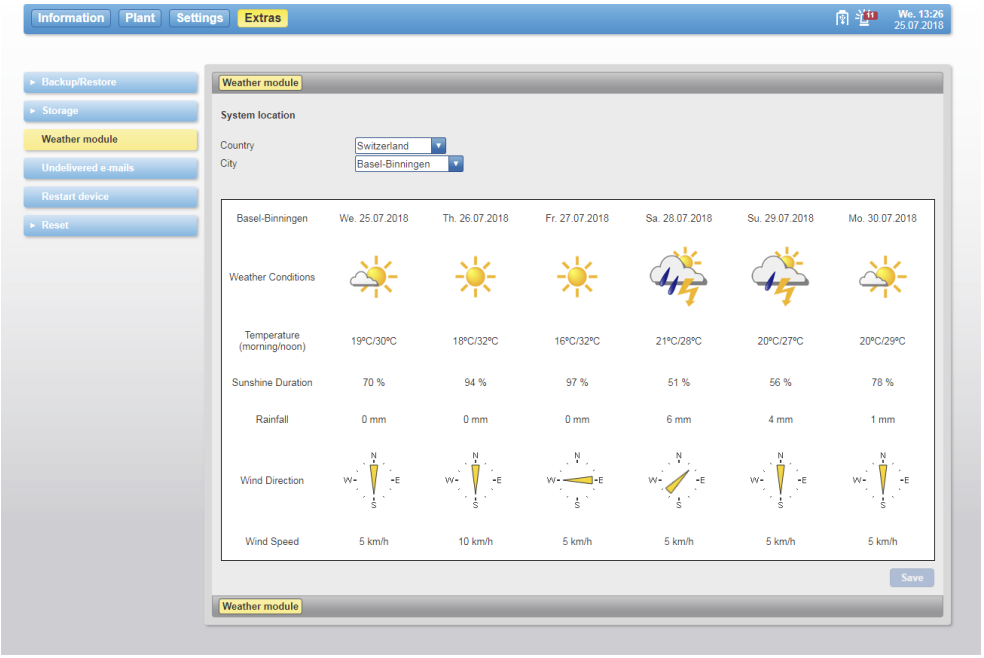



Fig. 156 Weather module

## 20.4 Undelivered e-mails

This list displays e-mails that have not been sent successfully for various reasons. The authorised user can remove the e-mails or try to send them again.

| | |
|---|---|
| | E-mail can be sent again |
| | Shows the content of the e-mail |
| | Deletes the send request and the e-mail |

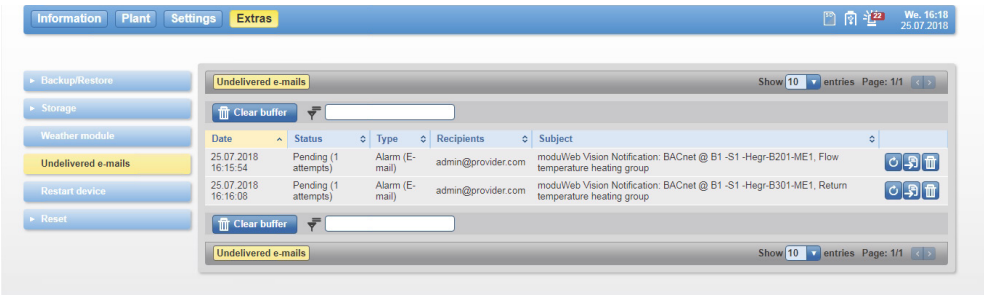



Fig. 157 Undelivered e-mails

## 20.5 Restart device

You can use this menu to restart moduWeb Vision.
moduWeb Vision is closed. You should only do this when there are serious malfunctions that affect the system stability, because normal moduWeb Vision operation is interrupted for several minutes.

Please note:

- Data logging is paused during the restart
- Alarm reception is inactive during the restart
- E-mail notification is inactive during the restart
- All currently active alarms are temporarily moved to the historical list. Alarms that are still active after the restart are again listed in the current alarm list
- All configured devices and data points are reinitialised over the network after the restart

Click “Restart device” in the menu tree in the main “Extras” menu. If required, you can enter a reason for the restart in the text field.

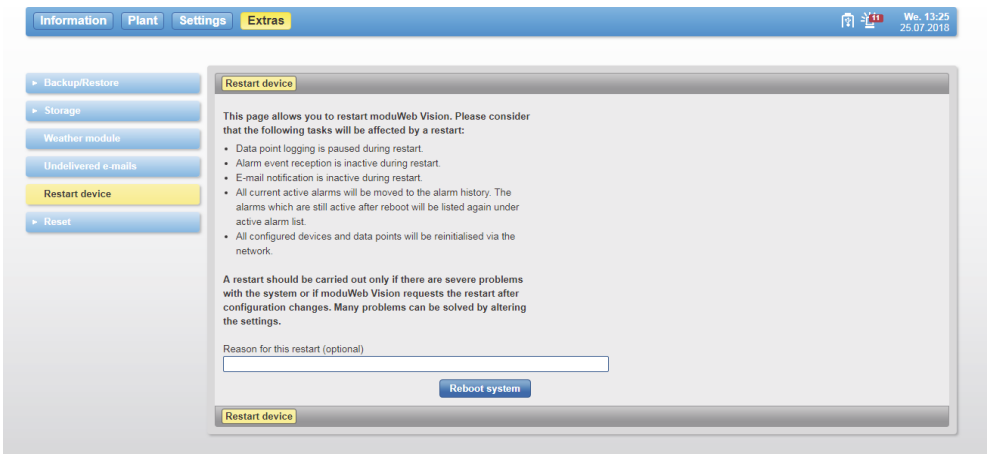



Fig. 158 Restarting the device

The system is restarted when you click “Reboot system” and respond to a confirmation prompt.

## 20.6 Reset

### 20.6.1 Configuration reset

You can use this menu to delete the system configuration.

Please note:
During this process, all user data is deleted, including:

- All user accounts except for the standard administrator
- The registered devices and the project structure
- All alarms
- The audit trail is deleted. Activate the sending of the audit trail under “Notifications” in order to get the old log entries!
- The configuration of the data logging

The following data remains:

- The network settings
- The BACnet device ID
- The data recorded on an existing SD card

Back up data before the reset.

Click “Reset / Configuration reset” in the main “Extras” menu in the menu tree.

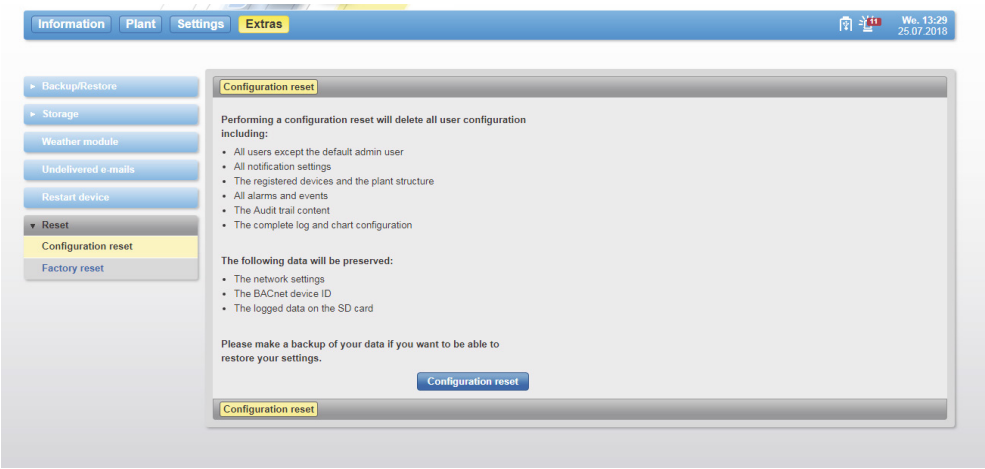



Fig. 159 Resetting the configuration

**CAUTION**
moduWeb Vision is no longer operational after this process. If you want to re-use the data, you must save it and restore it again later (see section 20.1). Observe the confirmation prompt.

If you click “Configuration reset” and respond to a subsequent confirmation prompt, the configuration data is deleted.

### 20.6.2 Factory reset

This menu resets moduWeb Vision to the state it was delivered in. All operating, configuration and engineering data is then lost. If any firmware upgrades are installed, they are not reset and the system retains the latest installed version of the firmware.

Please note:
During this process, the following data is deleted and the following settings are changed:

- All user accounts are removed (except for the standard user Admin)
- The configured devices and the plant structure tree are removed
- All alarms are deleted
- The audit trail is deleted. Activate the sending of the audit trail under “Notifications” in order to get the old log entries!
- The entire logging and chart configuration is removed
- DHCP is activated in the network settings
- The BACnet device ID is set to 1
- The 4th language is deleted if it is installed

The following data remains:

- The data recorded on an existing SD card

**CAUTION**
moduWeb Vision is no longer operational after this process. If you want to re-use the data, you must save it and restore it again later (see section 20.1). Observe the confirmation prompt.

Click “Factory reset” in the menu tree in the main “Extras” menu.

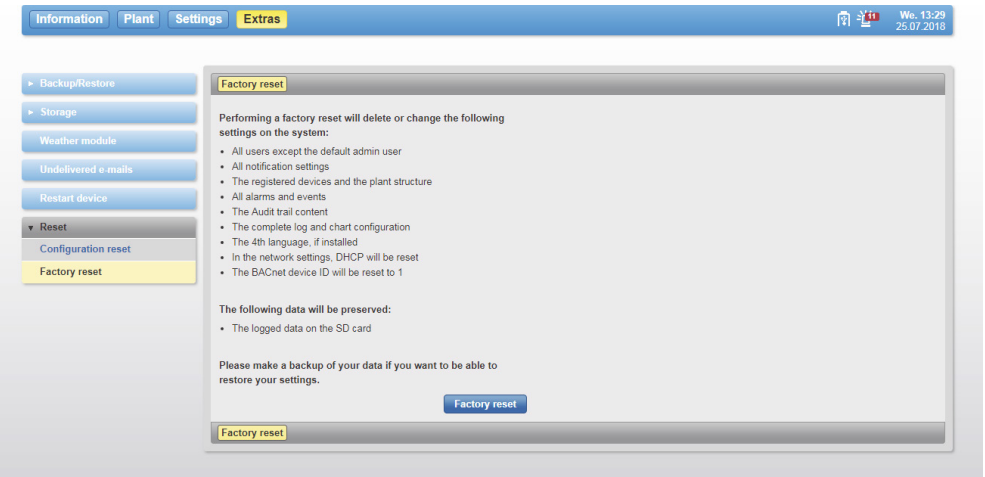



Fig. 160 Factory reset

When you click “Factory reset” and respond to a confirmation prompt, the system is restored to its original state.

# 21. Configuration and commissioning

## 21.1 Connection

In accordance with the product data sheet “moduWeb500: web server for BACnet network moduWeb Vision” PDS 96.005 and fitting instructions “EY-WS500” P10006978 A.

## 21.2 Programming and parameterisation

moduWeb Vision is usually parameterised and configured by SAUTER or an authorised system partner using CASE Suite.
moduWeb500 is supplied without software. The device will not work until the moduWeb Vision software (EY-WS505F010 or EY-WS505F020) is installed. The software is installed during initial start-up with CASE Sun.
During the engineering phase, the plant structure, navigation, dynamic images and diagrams are created.

### 21.2.1 Starting the moduWeb500 web server

After a restart, moduWeb Vision is initialised. moduWeb Vision reports all the data points, alarms and notifications for the BACnet devices. This process can take several minutes. moduWeb Vision can only operate correctly once the initialisation has been completed.

1. Turn the switch on the moduWeb500 to ON.
   The “STATUS” LED lights up orange.
2. Wait 2 minutes until the system loads and the “STATUS” LED lights up green.

The system is ready.
Loading may take longer, depending on the capacity of the SD card.
If someone logs into moduWeb Vision from a PC before loading is completed, the browser displays a waiting screen.

ⓘ Users who are logged in as administrators can also use the restart function in moduWeb Vision; see section 20.5.

### 21.2.2 LED indicators

Three LEDs on the moduWeb500 indicate its various operating states.
The following table explains the function of each LED.

| LED | State | Description |
|---|---|---|
| STATUS | Orange lit continuously | moduWeb500 in startup mode |
| | Green lit continuously | moduWeb500 in operation |
| | Green flashing | Identification via CASE Sun “Flash” |
| | Red flashing | moduWeb500 being configured; restart / download active |
| | Red flashing (rapidly) | No licence exists or internal error |
| Left Ethernet LED | Orange lit continuously | Network connection present |
| | Off (no indicator) | Network connection interrupted |
| Right Ethernet LED | Green pulsating | Ethernet (data transmission active) |

### 21.2.3 Reset button

You can use a button to reset the moduWeb500. The button is attached in such a way that it cannot be pressed inadvertently. The button has two functions:

1. Press the button for less than 5 seconds: warm start.
   The application is closed and restarted without interrupting the power supply.
2. Press the button for longer than 5 seconds: cold start.
   The power supply to the main CPU is switched off and on again.

### 21.2.4 Watchdog

On the moduWeb500, a watchdog signal which monitors its internal processes can be captured.
As a practical application, the signal can be connected directly to a digital or universal input of an automation station and monitored using software.

### 21.2.5 Switching off and disconnecting the moduWeb500 web server from the mains

If you want to disconnect the moduWeb500 from the mains, use the following procedure so as to avoid data loss or other disruptions to the system.

1. Save all the changes made in moduWeb Vision.
2. Log out
3. Turn the switch on the moduWeb500 to OFF.
   The indicator lamp flashes red.
4. Wait until the indicator lamp goes out.

You can now disconnect the moduWeb500 from the mains.

# 22. Operation with the touch licence option EY-WS506F100

From version 1.5 of moduWeb Vision, it is possible to create dedicated user interfaces for touch panels. In addition, it is also possible to make them available in different resolutions.

## 22.1 Supported browsers

Operation with the usual browsers that support HTML5 and JavaScript is possible. The same conditions as described in section 6 apply.
With the application SAUTER Facility Touch Client, it is possible to operate moduWeb Vision in full-screen mode.
With the application SAUTER Facility Touch Client, it is possible to have closed operation in full-screen mode of moduWeb Vision instead of using the default browser. In this way, targeted, exclusive use can be offered on the client device. For more details about FTC, see section 23.2.

## 22.2 Using touch profiles

It is assumed that the system is ready for operation, which means the moduWeb500 web server is running and available for connecting to a PC.

Instructions on starting the moduWeb Vision server can be found in section 21.2.1.

### 22.2.1 Opening with the browser

If the URL path has not been saved for the desired touch profile, you need to choose the profile in the desktop user interface.
For this, choose the button and select “Switch profile”.

Fig. 161 Profile selection in the desktop user interface

A dialogue with a selection of profiles is displayed. Select the desired profile by pressing the “Switch profile” button to the right of the profile description.

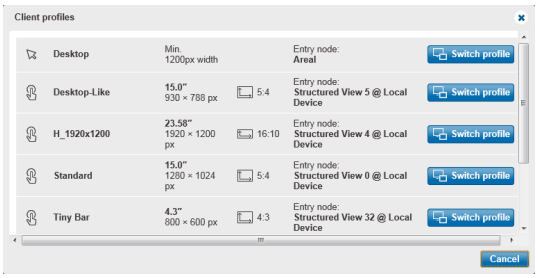



Fig. 162 Profile selection

The path which is visible in a browser URL field cannot be used as a favourite. This path would show the profile query.

#### 22.2.1.1 Opening with the Facility Touch Client

Once the connection has been made, the login dialogue appears.

Using the Facility Touch Client application, it is possible to set automatic logging in for a user. Configuration of a Facility Touch Client is possible using CASE Sun and the Touch Configuration Manager Wizard.

This tool is used to define the profile and the user who is to be logged out automatically. This setting is particularly interesting in combination with the automatic logout (Session Management, section 18.5). In this way you can configure the TouchPC so that a session is always open, but not with a role with advanced rights, such as administrator.

### 22.2.2 Welcome screen

During configuration of the Facility Touch Client, the initial node can be defined. This is loaded with automatic login, for example. The initial node is also the page that appears when you press the button.

### 22.2.3 Logging out / closing moduWeb Vision

It is possible to log out using the button.

The button can also be hidden.

By clicking the button, you can choose three actions:

- Switch user
- Logout
- Switch profile

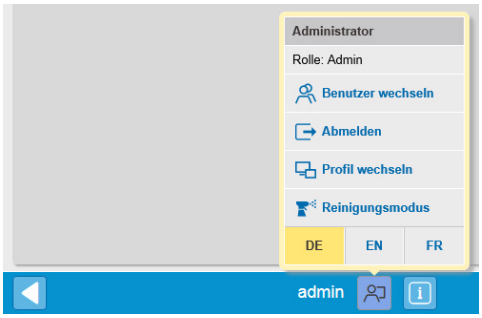



Fig. 163 Logging in and out

## 22.3 Main elements of the touch interface

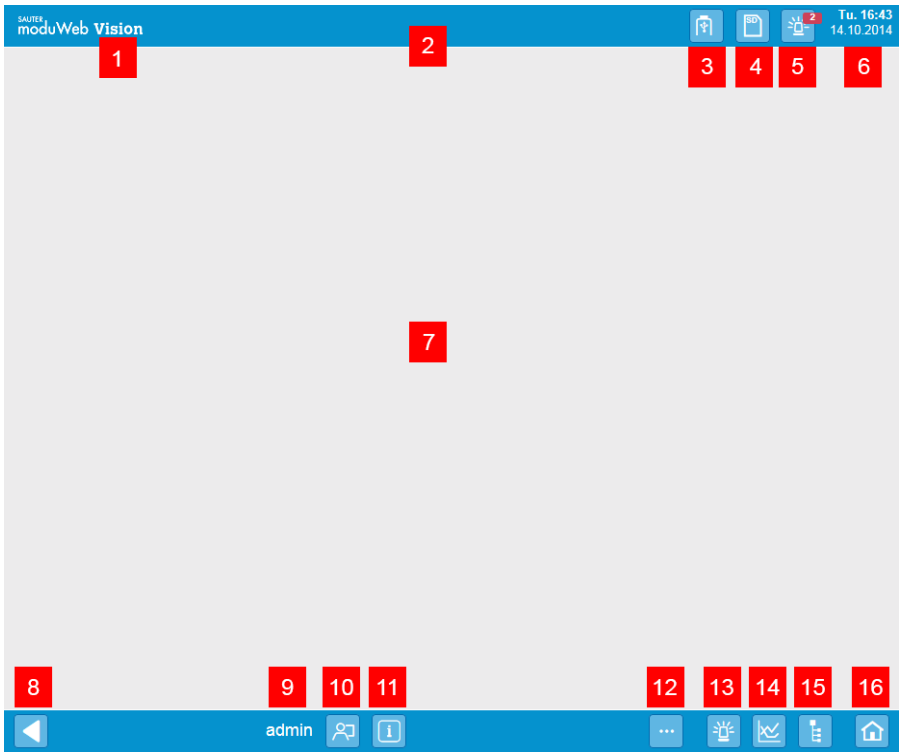



Fig. 164 Controls of the touch view

| | |
|---|---|
| 1) moduWeb Vision logo | 9) Current user |
| 2) User-defined title (profile) | 10) Session menu |
| 3) USB display or link | 11) Info |
| 4) SD storage | 12) Calendar, schedule, audit menu |
| 5) Alarm display or link | 13) Alarm menu |
| 6) Date and time | 14) Charts menu |
| 7) Content area | 15) Project navigation menu |
| 8) Back | 16) Back to the main node |

## 22.4 User interface, display conventions

Menu items, icons, labelled buttons, etc. are shown in different colours to make it easier to distinguish them:

- Elements in yellow can be selected or are applicable
- Elements in blue are clickable
- Elements in blue (greyed-out) are inactive or not clickable

These colour conventions do not apply to status icons.
Messages about successful execution of functions are shown on a green background.
Messages about missing or incorrect entries or other error states are shown on a red background.

### 22.4.1 Status bar

The status bar is available in two widths:

- 44 pixels
- 20 pixels

The wide status bar contains clickable buttons in 3D. With the thinner status bar, only status icons are displayed. These are not clickable.

The components on the status bar can be defined in the engineering. In the most minimal settings, the moduWeb Vision logo appears on the status bar.

#### 22.4.1.1 Profile title

The text is customer-specific and is defined in the engineering with CASE Vision.

#### 22.4.1.2 Memory

With this button, the status of the memory is displayed as a drop-down list.

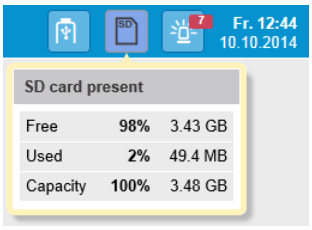



Fig. 165 Memory status

With this button, the status of the backup USB stick is displayed as a drop-down list.

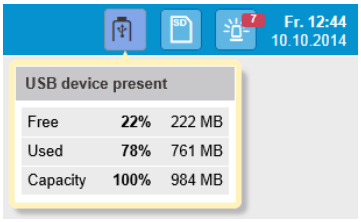



Fig. 166 USB status

For advanced functionality, you need to switch to the classic layout. For more information, see section 17.1 and 17.3.

#### 22.4.1.3 Alarm display

With this button, the status of the most recent alarms and a link to the alarm list is displayed.

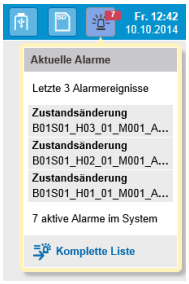



Fig. 167 Alarm drop-down list

#### 22.4.1.4 Date and time

The date and time of the moduWeb Vision device is displayed here.

#### 22.4.1.5 Navigation bar

The components on the bar can be set to be shown or hidden depending on the profile. It is also possible to switch off the bar completely. Only the “Back” button remains in the foreground.

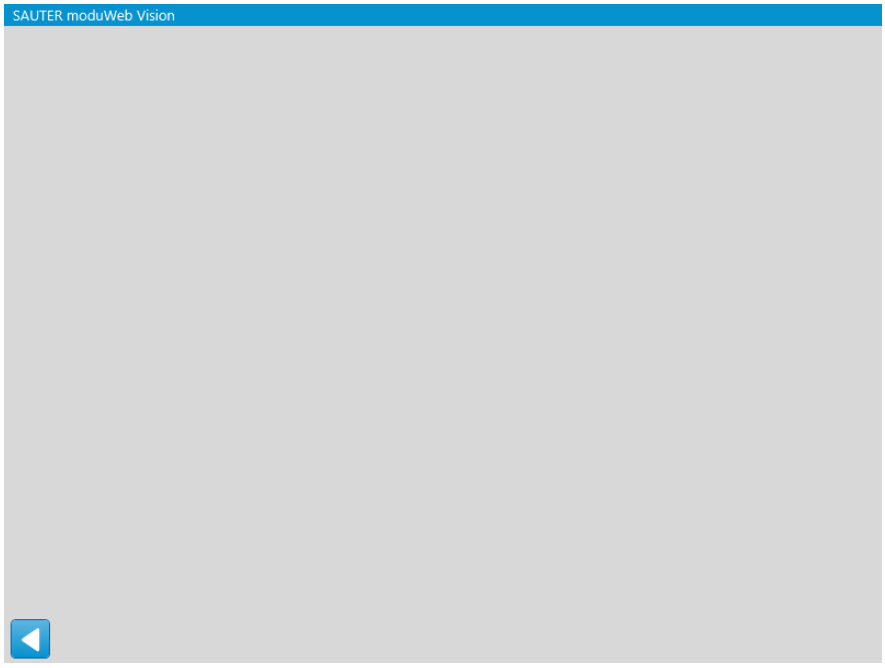



Fig. 168 Layout with a slim status bar and without a navigation list

#### 22.4.1.6 “Back” button

Using the “Back” button , it is possible to navigate back to the previous page.

#### 22.4.1.7 User name

The logged-in user is identified by this name.

#### 22.4.1.8 Session menu

When you press the button, a menu with the following selection items opens:

- Switch user
  The login dialogue opens. You can now change the user. The other user remains logged in, however.
- Logout
  The user is logged out and the login dialogue appears.
- Switch profile
  The profile dialogue opens and the profile can be changed. Using the profile dialogue, you can select other touch profiles or go to the classic desktop user interface.
- Clean Mode
  Cleaning mode is activated.
- Language
  Selection of the user interface language. You can use three standard languages and a local language (optional).

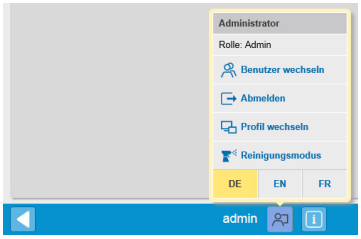



Fig. 169 Session menu

#### 22.4.1.9 Clean mode

Using the Clean Mode button, it is possible to clean the touch panel interface. After you click the button, the touchscreen does not respond to touch for a specific period of time. The cleaning icon is displayed.

Fig. 170 Cleaning icon

### 22.4.2 Info

This is used to display the system information. If a touch panel is used together with a Facility Touch Client, information about the Facility Touch Client also appears.

Fig. 171 Information about moduWeb Vision and the Facility Touch Client

#### 22.4.2.1 Calendar and schedule menu

Using the ··· button, a context menu with the following points is opened:

- Schedule
- Calendar
- Audit trail

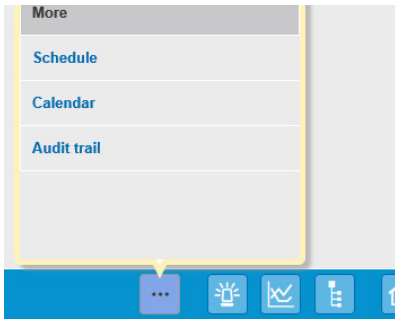



Fig. 172 Schedule, calendar and audit

#### 22.4.2.2 Alarm menu

As in the standard view, the current and historical alarm lists are available.

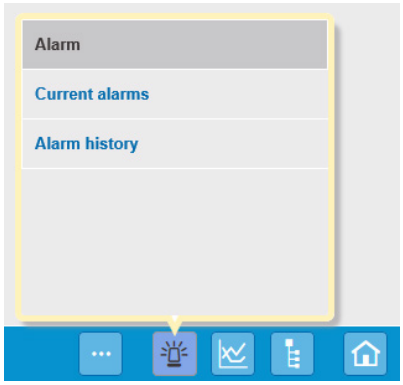



Fig. 173 Alarm menu

#### 22.4.2.3 Charts menu

As in the standard view, the combined and simple charts are available.

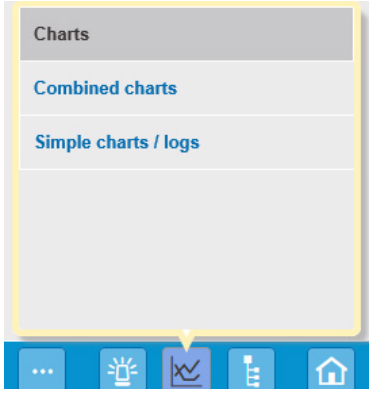



Fig. 174 Charts menu

#### 22.4.2.4 Project navigation

In the project navigation, only one level is displayed. If you open a node, only the sub-nodes of the selected node are displayed.

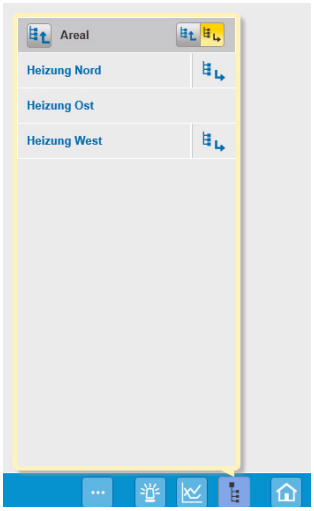



Fig. 175 Project navigation

The context menu of the project navigation consists of:

- “Up a level” button
- Name of the node, “Areal” in this case
- “List view” and “Graphical view” of the current node
- List of nodes that are one level below the current node
  - “Down a level” button

The context menu displays a node and the subordinate level.
Use the button to navigate one level lower. Use the button to navigate one level higher.

The current node displayed in the content area is indicated by a yellow background.

#### 22.4.2.5 Back to home destination

If you press the button, you can jump directly to the home destination defined in CASE Vision.

### 22.4.3 Content area

The content area contains information such as lists of system objects, alarm lists, charts or, if configured, a graphical representation of the plant.
Due to the simplified touch operation, not all functions are available.
All functions which are in the desktop user interface under “Properties” or “Extras” are not visible in the touch interface. An exception is the calendar and schedule.
For complete functionality, you need to switch to the desktop interface.

## 22.5 Schedule, calendar and audit trail

The design and operation of calendars and schedules is limited compared to the desktop interface. The deletion and creation of schedules and calendars is only possible on the desktop interface. The editing of existing schedules and calendars (e.g. adding new schedule commands, exceptions, calendar entries) is possible here.

### 22.5.1 Schedule

Schedules are accessible via the navigation bar or the buttons of the affected data points, if configured in the engineering.

### 22.5.2 Schedule list

As in the classical view, the schedules are listed in a list that displays a variety of information. The name (in blue) is a reference to another view.

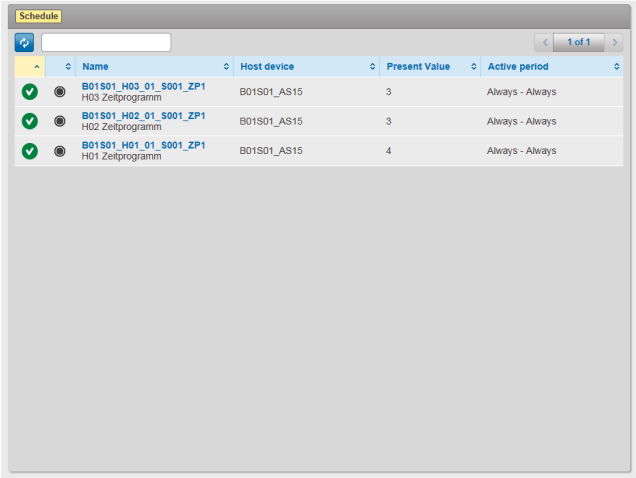



Fig. 176 Schedule list. Schedules can be selected by name.

### 22.5.3 Timetables

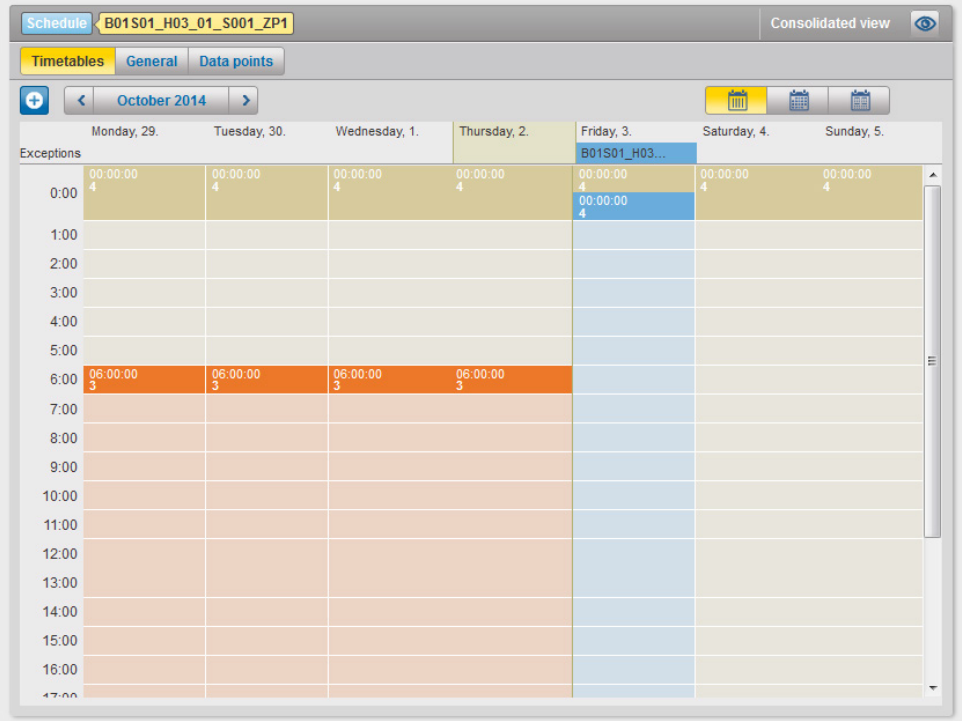



Fig. 177 Timetable consolidated view

The consolidated view provides a summary of the weekly switching plan and the schedule commands in case of exceptions.
The buttons allow you to switch between the weekly, monthly and yearly view. Using the middle buttons above the calendar view, you can jump to a certain date, or even back to the current day.

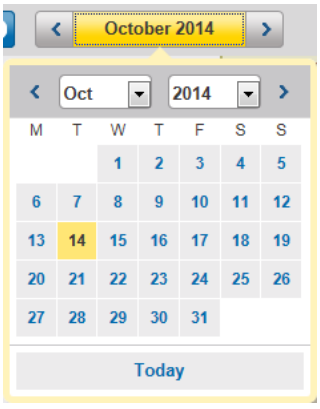



Fig. 178 Calendar navigation bar

With the button, you can enter new schedule commands in the weekly schedule or create a new exception entry. New schedule commands in the weekly switching plan can be created using the following dialogue:

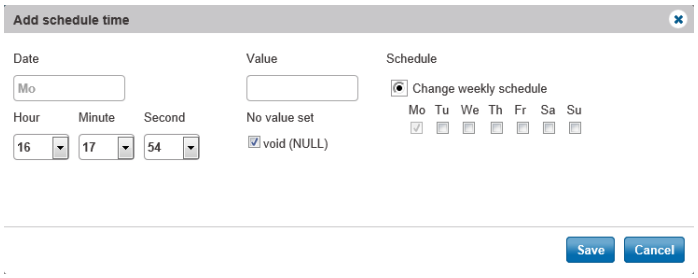



Fig. 179 Inserting a schedule command

New exceptions can be created in most cases with the following dialogue:

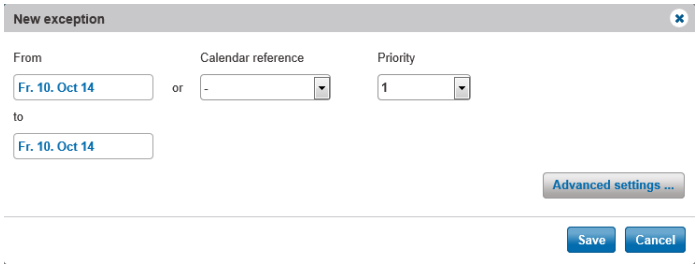



Fig. 180 Creating an exception

To create an exception, it is sufficient in most cases to choose a certain day, a period or a reference to another calendar. In addition, the priority of the corresponding schedule commands must also be selected.
Additional settings can be set with the “Advanced settings” button:

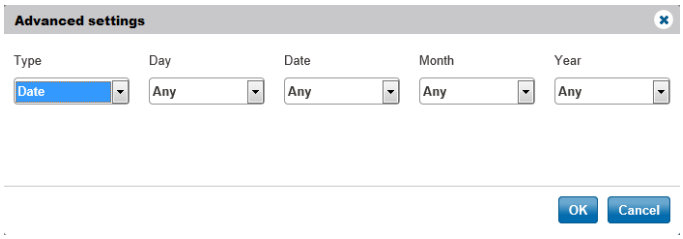



Fig. 181 Advanced settings

With the advanced settings, different repeating patterns are possible, as described in the BACnet standard.
If you click an existing schedule command, the following menu appears:

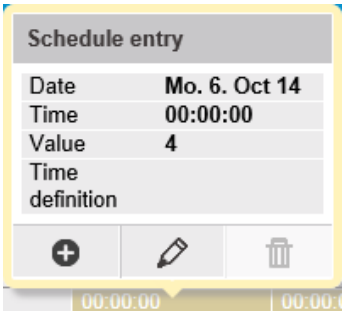



Fig. 182 Schedule specification of a timetable

The view shows the current status and offers the possibility of adding, editing or deleting a schedule command using the buttons .

A similar view is also displayed with an existing exception:

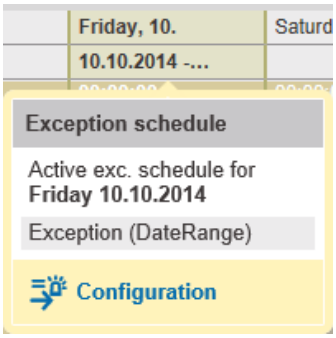



Fig. 183 Exception specification directly in the timetable

If you click the “Configuration” button, the highest priority exception entry and the configuration page are displayed. On the configuration page, all exception entries affecting the day are listed. It is necessary to edit or delete the data.

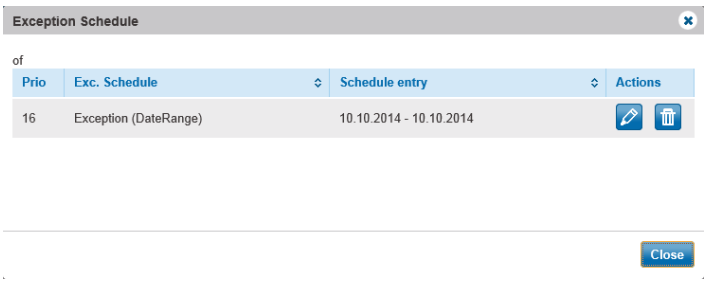



Fig. 184 View of the exception entries

Alternatively to the consolidated view, there is also the agenda view, which is accessible via the button. The timetables are available via the “Weekly schedule” and “Exception schedule” buttons.

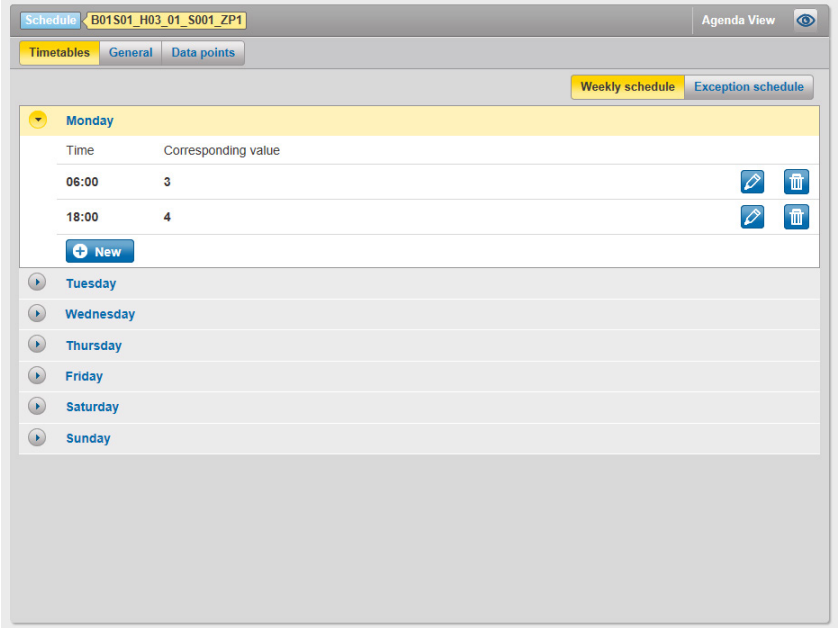



Fig. 185 Weekly schedule agenda view

In the weekly schedule, you can edit, delete or add new entries for every day.

In the Exception schedule view, all special entries are listed initially. With every entry, the schedule commands are listed on a lower level. The exception entries and the schedule commands can be edited, deleted or added with the button.

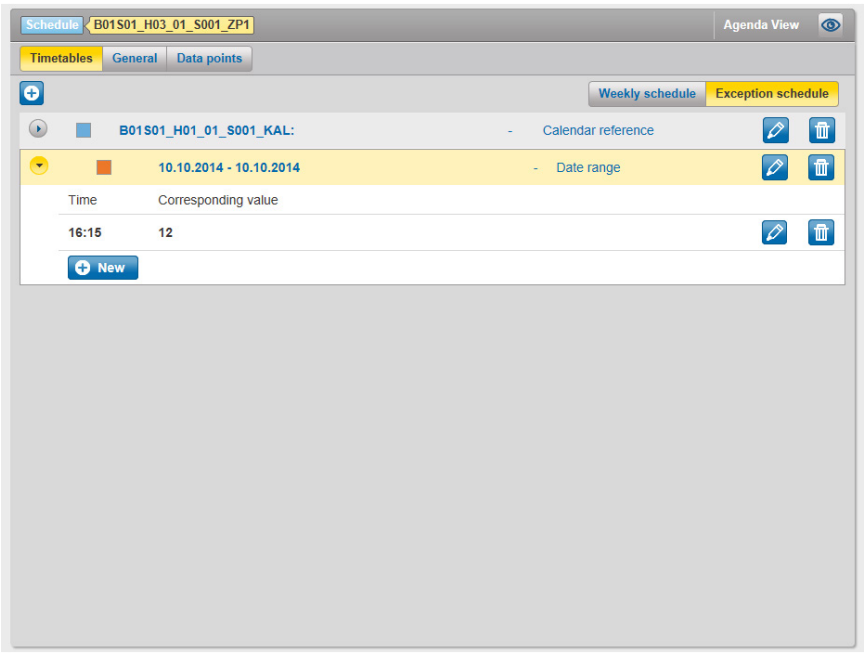



Fig. 186 Exception schedule view

### 22.5.3.1 General

In this view, the global timetable settings are displayed.

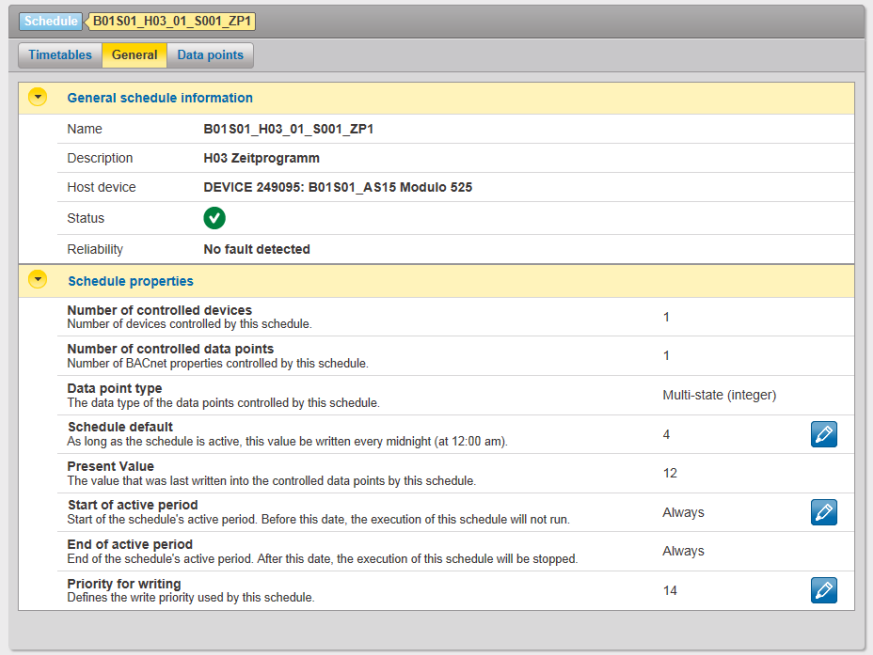



Fig. 187 Timetable setting

### 22.5.3.2 Data points

In this view, data points controlled by the timetable are listed. This view is a non-editable list.

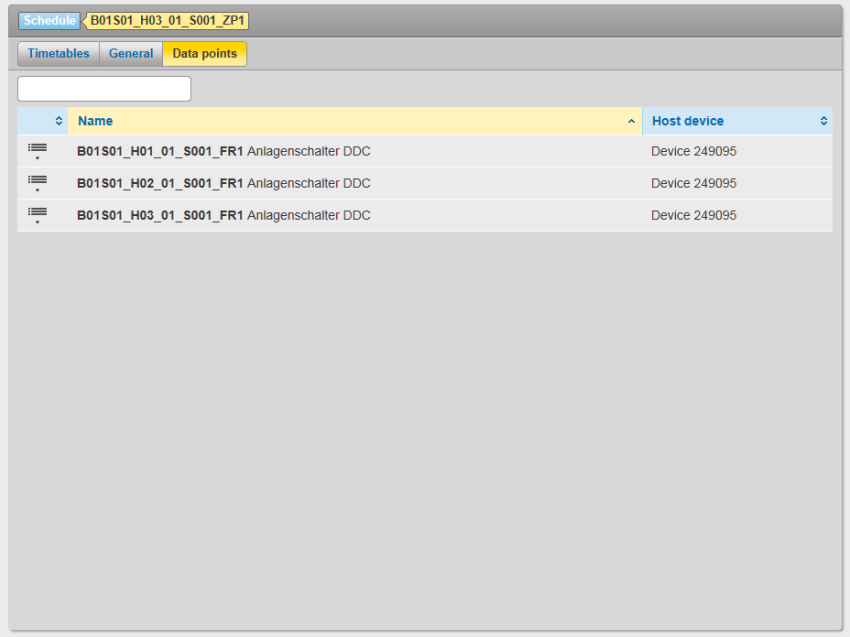



Fig. 188 Data point view

### 22.5.4 Calendar

The calendar is structured exactly the same as the desktop version, with the difference that in the touch version no new calendars can be created and no existing ones can be deleted.

### 22.5.5 Audit trail

The audit trail is structured exactly as in the desktop version, apart from the CSV export. This is not present in the touch version.

## 22.6 Alarms

For the alarms, nothing has changed in regard to the desktop interface. Both views (current alarms and historical alarms) are provided. Instead of using the tabs, the views can be switched between the grouped and flat view using the button.
With multi-page lists, you can scroll forwards and backwards with the arrow buttons.
Using the middle button (1 of ...), the following actions can be performed:

- The maximum number of entries (10, 25 and 50) can be defined
- Pages can be directly selected and jumped to

# 23. Appendix

## 23.1 FAQ

### 23.1.1 Engineering and commissioning

- **May I use the power supply connector for a redundant power source?**

  No.
  Using both power inputs at the same time will damage the EY-WS500F005.

- **My USB disk is not detected**

  Cause:
  The USB port of moduWeb Vision supplies only 250 mA. Most USB hard drives without an external power supply require more power.
  Solution:
  - Use a USB stick as the storage medium (recommended) or
  - Connect the USB disk to an external power supply unit or
  - Provide the USB disk with an additional power supply via USB hub (powered USB hub)

- **I cannot send e-mails with product-smtp**

  The “SSL active” checkbox in the e-mail server settings must not be activated.

- **After a CASE download no changes take effect**

  Cause:
  There may be many causes for the download failure:
  For big configuration downloads you need to adapt the Backup Failure Timeout Setting in CASE Engine. You have two options to do this:
  Adapt the property in the device properties by using the BACnet browser.
  Solution:
  Download just the BACnet Config by activating this option only during the download. After that you can perform a download with both options activated.

- **CASE Engine download fails**

  Cause:
  The download time varies with the size of your project. On big projects this may cause a timeout error.
  Solution:
  If necessary, you can increase the value of the property “Backup Failure Timeout” in the device object of moduWeb Vision.

Three steps are necessary:

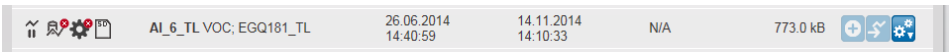
1. Please check first if daylight saving time is activated in the CASE Engine project. Otherwise the Config file won't be read.
2. In CASE Engine, you change this setting in the device properties of moduWeb Vision. Then do a download exclusively of the BACnet properties.
3. Perform a complete download with CASE engine. To save time, instead of making the first download, you may change the property directly with a BACnet browser.

### 23.1.2 Log data and charts

- **moduWeb Vision: In the combined charts there are missing values**
  Cause:
  A chart combination of data points with a large data volume and a small data volume in one combined chart may lead to a different presentation of the chart each time the interval is loaded again, due to the optimisation algorithm.
  Solution:
  This behaviour has been fixed with Version 1.1.2. A good value for large configurations here is 900 (value in seconds).

- **Can I read out the SD card with a PC?**
  Yes.
  Since version 1.3, file format FAT32 is used for storing the data on the SD card. This can then be read using the PC.
  For fast data conversion, the "Log Data Converter Tool" Windows tool is available on the extranet. Since moduWeb Vision version 1.7, conversion with moduWeb Vision is no longer possible.

- **In the Log Settings list there are corrupt entries**




  Cause:
  If you have corrupt entries in the Log Settings list, then there is a problem in the CASE Vision configuration. In CASE Vision there is, right now, no check if the data points which are defined as logs are also in the SVO. This is always required in moduWeb Vision, however.
  Solution:
  Go back to your CASE Vision project and check if the log data points are also included in the SVO (Navigations).
- **White content after selection of Charts/Logs view**
  Cause:
  The problem may be caused by the caching behaviour of the browser.
  Solution:
  1. Empty the cache in the settings window of your browser.
  2. It is also necessary to delete the plug-in data.
  3. The best way of emptying the cache for the Flash Player in all browsers is to go to the Control Panel of Windows --> System --> Flash Player Settings Manager --> Advanced --> Browsing Data and Settings --> Delete All --> Delete All Website Data and Settings.

### 23.1.3 Web interface, page structure

- **Schedule data is not up to date**
  Situation:
  Assume a network has at least one moduWeb and a moduWeb Vision. While working with moduWeb Vision, a change is made in the plant through a direct login into a moduWeb station. The change is not displayed in the moduWeb Vision station.
  Workaround:
  There is no synchronisation mechanism provided for this situation. Therefore, it's necessary to manually refresh the page in the browser.
  In the case of IE9, press F5 to refresh, or even CTRL+F5 to erase the cache and refresh the page.

- **Loading a list view takes a long time and causes a script warning**
  Cause:
  In Internet Explorer, the execution of scripts is slower than on most other browsers.
  On long lists this may cause loading times of more than one minute, making IE warn about the long execution time.
  Solution:
  - You can accept the warning and wait until the page is loaded (click “Continue”).
  - You may consider using a faster web browser like Chrome or Firefox.
  - You may consider restructuring your project in order to avoid long lists.
- **Acknowledging alarms takes a long time and runs into a script error**
  Cause:
  In Internet Explorer, the execution of scripts is slower than on most other browsers.
  When acknowledging more than 100 alarms at the same time, the execution may take more than one minute, making IE warn about the long execution time.
  Solution:
  - You can accept the warning and wait until all alarms are acknowledged.
  - Acknowledge fewer alarms by selecting, for example, “all on page”.
  - You may consider using a faster web browser like Chrome or Firefox.

### 23.1.4 Data acquisition (getCSV)

**How can the data be saved in a CSV file using one command (URL in browser)?**

Cause:

You would like to save the data quickly and easily in a CSV format using just one command.

Solution:

The main command http(s)://[mWV-URL]/charts/export/getcsv?
is extended by the following parameters (separated with & character):

| Parameter | Format | REQUIRED/ DEFAULT | Description |
|---|---|---|---|
| username | [username (String)] | REQUIRED | User name of a valid mWV user |
| password | [password (String)] | REQUIRED | Password for the user name given |
| pid | [BACnet property identifier (int)] | REQUIRED | *Property identifier* of the desired data point. Meets the BACnet standard. For example, *Present Value* = 85. (Note: This PID value can be seen when a simple chart is called up normally in the URL field, or in the expert view of a data point. |
| oid | [BACnet object identifier (int)] | REQUIRED | Combination of the object type and the object instance of an object. (Note: The OID value can also be retained in the URL of the simple diagram view of the data points). |
| did | [BACnet device object identifier (int)] | REQUIRED | Combination of the device type and the instance number of the device. (Note: This DID value can also be retained in the URL of a simple diagram view of the data points). |
| from | [timestamp in ms since 01/01/1970] or [-1] | -1 | If the timestamp is [-1] or not available, the first valid timestamp from the log file is used. (Note: UTC timestamp * 1000 can also be used). |
| to | [timestamp in ms since 01/01/1970] or [-1] | -1 | If the timestamp is [-1] or not available, the first valid timestamp from the log file is used. (Note: UTC timestamp * 1000 can also be used). |

| | | | |
|---|---|---|---|
| Resolution | - RAW<br>- M2<br>- M30<br>- H3<br>- D1<br>- D7<br>- CM1<br>- AUTO | AUTO | The exported data should be returned in the following granularities:<br>RAW: All received values<br><br>M2/30: The received values in a 2 or 30 minute compression, if the original values have occurred more often than every 2 or 30 minutes.<br><br>H3: The received values in a 3 hour compression, if the original values have occurred more often than every 3 hours.<br><br>D1/ D7: The received values in a 1 or 7 day compression, if the original values have occurred more often than every 1 or 7 days.<br><br>CM1: The received values in a calendar month compression, if the original values have occurred more often than every calendar month.<br><br>AUTO: The granularity is automatically selected with the same settings as in the diagram view. |
| milliestimestamps | [true, false] | false | If the timestamp is set to *true*, when it is returned, it will be given in milliseconds since 01/01/1970. Otherwise it will be displayed in the session in the customary format. (Set the HTTP request header “Accept Language” parameter in the standard settings). |

A complete command (URL) can be as follows (example):

http(s)://10.15.10.140/charts/export/getcsv?username=admin&password=passwd$$&pid=85&oid=16777216&did=33554834&granularity=RAW&milliestimestamps=true

The same command can also be used for the audit trail:
http(s)://[mWV-URL]/info/audittrail/getcsv?username=admin&password=passwd$$

It is possible to export the flat alarm list. Along with username and password, a new parameter is required.

| **Parameter** | **Format** | **REQUIRED/ DEFAULT** | **Description** |
|---|---|---|---|
| alarmscope | [alarmscope (String)] | RE-QUIRED | current: Entries from the current alarm list.<br>historical: Entries from the historical alarm list. |

Example:
http(s):// [mWV-URL]/alarms/getcsv?username=admin&password=passwd$$&alarmsscope=historical

### 23.1.5 IT security recommendations

The following is a list of recommendations for ensuring a minimum level of IT security.
Because of the rapid changes in the IT sector, only information for a minimum level of IT security are provided.
SAUTER cannot guarantee 100% protection.
SAUTER generally recommends getting an IT professional to set up the IT infrastructure and implementing the latest security measures (where compatible).

- Changing the password: On delivery, mWV is supplied only with an admin user account and the related password. During your first login you will be asked to change the standard password. During an upgrade of mWV, the strength of the existing passwords is checked. If the strength is insufficient, the individual users are asked to change their password. Delete the unnecessary user accounts.
- Password strength: Keep your passwords secret. A minimum length of 12 characters is recommended.
- Encryption: You should preferably use encrypted navigation (https). Advanced configuration of the IT infrastructure can force this (e.g. reverse proxy).
- The access to the internet must employ state-of-the-art technology. Make sure that only authorised persons and applications have access to your infrastructure.
- Avoid free access to computers that have been configured for operation. Do not use the “Keep me logged in” option on freely accessible computers. Use the time-controlled logout.
- Data backups should only be performed by authorised personnel and be stored at a secure location.

You can also view the basic principles of IT security on the SAUTER extranet under Products -> 9 Building Management System -> White Paper

White paper: IT-Sicherheit in der Gebäudeautomation
https://extranet.ch.sauter-bc.com/pdm/docs/de_wp_de803346.pdf

White paper: IT-Security in building automation
https://extranet.ch.sauter-bc.com/pdm/docs/en_wp_en813043.pdf

White paper: La sécurité informatique dans le domaine de l'automatisation de bâtiments.
https://extranet.ch.sauter-bc.com/pdm/docs/fr_wp_fr813072.pdf

### 23.1.6 System notifications

mWV generates internal system alarms which appear in the alarm list and are forwarded as an e-mail or SMS notification. The following list shows these texts and their priority.

| Prio | EN |
|---|---|
| 70 | The module cannot be started correctly. Please contact the product support. |
| 50 | Internal module error. |
| 70 | The historic log could not be resumed because the data point ({arg1}) is not available in the system. |
| 70 | The historic log could not be resumed because the data point ({arg1}) is not reachable. |
| 70 | The historic log could not be resumed because the update type for the data point ({arg1}) is not supported. |
| 50 | The configured data point has a different data type to the stored data. Please check the configuration. |
| 50 | The configured data point has an unsupported data type and cannot be logged historically. |
| 70 | The incoming log record threshold has been exceeded. Configured threshold: {arg1}, records received: {arg2}. Please adapt the log configuration or the COV increment to prevent this problem from recurring. |
| 70 | The incoming log record threshold has been exceeded. Configured threshold: {arg1}, records received: {arg2}. The log has been paused automatically. Please adapt the log configuration or the COV increment to prevent this problem from recurring and resume the log recording. |
| 200 | The incoming log record count is back to normal. Configured threshold: {arg1}, records received: {arg2}. |
| 70 | The incoming log record count is too high. The system was not capable of processing that amount of samples. There might be gaps in the historic log. Please adapt the mWV simple chart configuration and/ or the COV increment of the object responsible for this to reduce the system load. This alarm can be set to normal again under Settings/Chart settings/Data logger after the adaptions have been done. |
| 200 | The overflow alarms have been set to normal manually. |
| 70 | The data logger storage (SD card) is corrupt. The data logger is running in read only mode. |
| 70 | The storage limit has been reached, logging is stopped. Free some space on the SD card or enable the circular buffer mode. |
| 200 | The storage limit has been reached. The data logger is running in circular buffer mode now. The oldest log data will be deleted. |
| 200 | The data logger is operational and running in default mode (stop when full). |
| 200 | {arg1}% of the data logger storage is used. |
| 200 | More than {arg1}% of the data logger is free. |
| 70 | The maximum number of logs on the SD card ({arg1}) has been reached. Not all logs could be started. |
| 100 | The configured structured view is valid again. |
| 100 | The configured structured view layout is valid again. |
| 100 | Error in node "{arg3}": The configured object type "{arg1}" is not supported by {arg2} components. |
| 100 | Error in node "{arg3}": The configured "{arg1}" element is not supported by {arg2} components. |
| 100 | Error in node "{arg4}": Invalid {arg3} component configuration. The configured property "{arg2}" is not supported by "{arg1}" objects. |
| 100 | Error in node "{arg1}": Invalid {arg2} component configuration. The configured data point "{arg3}" is not contained in the node. |
| 100 | Error in node "{arg1}": Invalid link component configuration. The configured BACnet object "{arg2}" is not contained in the node. |
| 100 | Error in node "{arg1}": Invalid link component configuration. The configured "{arg2}" with id {arg3} is not contained in the node. |
| 100 | Invalid plant structure: The two nodes "{arg1}" and "{arg2}" are using the same id. |
| 100 | Error in node "{arg1}": A node link component refers to a non-existent node "{arg2}". |
| 100 | Error in node "{arg1}": The subordinate list refers to a child node "{arg2}" which does not exist. |
| 100 | Invalid plant structure: The node "{arg1}" has no parent. |
| 100 | Invalid plant structure: The plant structure tree contains a loop. The node "{arg1}" is a sub node of one of its children. |
| 100 | Error in node "{arg1}": Invalid {arg2} object in node. The configured {arg2} object with id {arg3} does not exist. |
| 100 | Error in node "{arg1}": The "{arg2}" object refers to a non-configured device. |
| 100 | Error in node "{arg1}": Invalid "{arg2}" object in node. The BACnet object type is not supported by the system. |

| Prio | EN |
|---|---|
| 100 | The provided version of the configuration file is incompatible with this firmware revision. The default file was loaded instead. Please upgrade your configuration software and the firmware to the newest version. |
| 100 | Neither the requested file nor its default file is available. |
| 100 | The requested file is not available, loading default file. |
| 100 | Internal system error. The schema definition file is not available. |
| 70 | The default file is not available. |
| 100 | The requested file is corrupted and cannot be parsed. |
| 70 | The requested default file is corrupted and cannot be parsed. Please contact the product support. |
| 100 | The requested file cannot be parsed. Loading the default instead. |
| 100 | The file was successfully loaded. |
| 70 | The default file has been loaded. |
| 100 | An error occurred while saving the file. |
| 100 | The file does not conform to the specified format. |
| 100 | The file does not conform to the specified format and cannot be converted. It will therefore be deleted. |
| 100 | Internal system error. The schema definition for the file conversion is not available. The configuration file will be deleted. |
| 100 | An error occurred while saving the converted file. |
| 100 | The file content is invalid and cannot be converted. It will therefore be deleted. |
| 100 | The current configuration violates a system limit. Maximum permissible value: {arg1}. Configured value: {arg2}. Therefore, the default configuration has been loaded. Please redownload a valid configuration using the SAUTER CASE Suite. |
| 100 | The currently installed configuration violates a system limit. Maximum allowed value: {arg1}. Configured value: {arg2}. Therefore, the default configuration has been loaded. Please either redownload a valid configuration using the SAUTER CASE Suite or upgrade your licence. |
| 150 | [{arg1}] The local translation could not be loaded. The faulty key is {arg2}. Cause: {arg3}. |
| 150 | [{arg1}] The local translation files could not be loaded because its major version is incompatible with the system's major version. System major version: {arg2}, localization major version: {arg3}. |
| 200 | [{arg1}] The local translation may be inconsistent. The translation might not be complete because it has an older minor version than the system's requirement. |
| 150 | [{arg1}] The local translation could not be loaded because it is incompatible with this software product. Installed software product: {arg2}, software product of the localization: {arg3}. |
| 50 | I/O error |
| 100 | Duplicate id found: {arg1} |
| 100 | The simple charts/logs with the ids {arg1} and {arg2} are referencing the same object: {arg3} |
| 100 | Insufficient storage on the USB device. |
| 100 | Insufficient system storage |
| 100 | Insufficient storage on the SD card |
| 100 | Either there is no USB device or the USB device is not accessible (e.g. unknown file system, corrupt memory...) |
| 100 | The system failed while transferring backup data between the USB device and the system. |
| 100 | An error occurred while accessing the backup file |
| 100 | The system failed to restore a backup due to an incompatible backup version |
| 100 | The system failed to restore a backup due to a backup of an incompatible software product |
| 100 | Requested archive operation failed. |
| 70 | Error importing configuration file: {arg1} |
| 100 | Error importing log data |
| 100 | An error occurred while reading the log data |
| 70 | NTP time synchronisation failed. Please check the configured time servers and make sure that moduWeb Vision has network access to these servers. |
| 70 | NTP time synchronization succeeded and is back to normal. |
| 100 | Email is invalid. Please check configuration. |
| 100 | Sender or recipient email address is invalid. Please check SMTP server and user configuration. |
| 100 | Email is valid. |
| 100 | SMS is invalid. Please check configuration. |

Appendix

| Prio | EN |
|---|---|
| 100 | Sender or recipient address is invalid. Please check SMTP server and user configuration. |
| 100 | SMS is valid. |
| 150 | An unknown error occurred with the SMTP server. Please check the server configuration and contact the product support if the problem persists. |
| 150 | Authentication on the SMTP server failed. Please check login parameters of the SMTP server. |
| 150 | The SMTP host cannot be found. Please check the server configuration and check if the host is functional. |
| 150 | SSL connection to SMTP server failed. Please check if the SMTP server supports SSL and if the correct port is used. |
| 150 | Could not connect to the SMTP server. Please check the server configuration and the network and firewall settings. |
| 150 | The connection with the SMTP server was successfully established. |
| 150 | The e-mail buffer is full. Old alarms will be replaced with newer ones. |
| 150 | E-mail buffer state is back to normal. |
| 100 | The authentication with the automation station failed. Please check your login data. |
| 100 | The authentication was successful. |
| 150 | The BACnet object is not available on the device. Please check if the object has been deleted from the device. |
| 150 | The object is available again. |
| 70 | The device is not available over the network. Please check that the device is connected to the network and running. |
| 100 | The device object identifier of this device is not unique in the BACnet network. This will cause communication errors and should be changed asap. |
| 70 | The device is available again. |
| 100 | An internal error in the protocol adaptor has occurred. Please contact the support if this alarm keeps showing up. |
| 100 | Communication with the device could not be established. The protocol version could be unsupported or the device is malfunctioning. |
| 150 | The requested service is not supported by either the protocol used or the device. |
| 70 | At least one subscription to the notification classes of this device failed, so not all the alarms will be received. (probably caused by "Maximum alarm subscription limit reached") |
| 70 | Error importing configuration file: {arg1} |
| 100 | Requested archive operation failed. |
| 100 | Insufficient storage on the SD card |
| 100 | Insufficient system storage |
| 100 | Insufficient storage on the USB device. |
| 100 | An error occurred while accessing the backup file |
| 100 | The system failed while transferring backup data between the USB device and the system. |
| 100 | Error importing log data |
| 100 | An error occurred while reading the log data |
| 100 | Either there is no USB device or the USB device is not accessible (e.g. unknown file system, corrupt memory...) |
| 100 | The system failed to restore a backup due to a backup of an incompatible software product |
| 100 | The system failed to restore a backup due to an incompatible backup version |
| 70 | The historic log could not be resumed because the data point ({arg1}) is not available in the system. |
| 50 | The configured data point has a different data type to the stored data. Please check the configuration. |
| 50 | The configured data point has an unsupported data type and cannot be logged historically. |
| 70 | The historic log could not be resumed because the data point ({arg1}) is not reachable. |
| 200 | The data logger is operational and running in default mode (stop when full). |
| 200 | The storage limit has been reached. The data logger is running in circular buffer mode now. The oldest log data will be deleted. |
| 70 | The data logger storage (SD card) is corrupt. The data logger is running in read only mode. |
| 70 | The incoming log record count is too high. The system was not capable of processing that amount of samples. There might be gaps in the historic log. Please adapt the mWV simple chart configuration and/or the COV increment of the object responsible for this to reduce the system load. This alarm can be set to normal again under Settings/Chart settings/Data logger after the adaptions have been done. |

| Prio | EN |
|---|---|
| 200 | The overflow alarms have been set to normal manually. |
| 70 | The storage limit has been reached, logging is stopped. Free some space on the SD card or enable the circular buffer mode. |
| 200 | {arg1}% of the data logger storage is used. |
| 200 | More than {arg1}% of the data logger is free. |
| 70 | The maximum number of logs on the SD card ({arg1}) has been reached. Not all logs could be started. |
| 70 | The historic log could not be resumed because the update type for the data point ({arg1}) is not supported. |
| 200 | The incoming log record count is back to normal. Configured threshold: {arg1}, records received: {arg2}. |
| 70 | The incoming log record threshold has been exceeded. Configured threshold: {arg1}, records received: {arg2}. Please adapt the log configuration or the COV increment to prevent this problem from recurring. |
| 70 | The incoming log record threshold has been exceeded. Configured threshold: {arg1}, records received: {arg2}. The log has been paused automatically. Please adapt the log configuration or the COV increment to prevent this problem from recurring and resume the log recording. |
| 100 | Duplicate id found: {arg1} |
| 100 | The simple charts/logs with the ids {arg1} and {arg2} are referencing the same object: {arg3} |
| 100 | The file does not conform to the specified format and cannot be converted. It will therefore be deleted. |
| 100 | Internal system error. The schema definition for the file conversion is not available. The configuration file will be deleted. |
| 100 | The file content is invalid and cannot be converted. It will therefore be deleted. |
| 100 | An error occurred while saving the converted file. |
| 100 | The provided version of the configuration file is incompatible with this firmware revision. The default file was loaded instead. Please upgrade your configuration software and the firmware to the newest version. |
| 100 | The file does not conform to the specified format. |
| 100 | The file was successfully loaded. |
| 70 | The default file has been loaded. |
| 100 | Neither the requested file nor its default file is available. |
| 70 | The default file is not available. |
| 100 | The requested file is not available, loading default file. |
| 100 | Internal system error. The schema definition file is not available. |
| 100 | The requested file is corrupted and cannot be parsed. |
| 70 | The requested default file is corrupted and cannot be parsed. Please contact the product support. |
| 100 | The requested file cannot be parsed. Loading the default instead. |
| 100 | An error occurred while saving the file. |
| 50 | I/O error |
| 100 | The currently installed configuration violates a system limit. Maximum allowed value: {arg1}. Configured value: {arg2}. Therefore, the default configuration has been loaded. Please either redownload a valid configuration using the SAUTER CASE Suite or upgrade your licence. |
| 100 | The current configuration violates a system limit. Maximum permissible value: {arg1}. Configured value: {arg2}. Therefore, the default configuration has been loaded. Please redownload a valid configuration using the SAUTER CASE Suite. |
| 150 | [{arg1}] The local translation files could not be loaded because its major version is incompatible with the system's major version. System major version: {arg2}, localization major version: {arg3}. |
| 200 | [{arg1}] The local translation may be inconsistent. The translation might not be complete because it has an older minor version than the system's requirement. |
| 150 | [{arg1}] The local translation could not be loaded because it is incompatible with this software product. Installed software product: {arg2}, software product of the localization: {arg3}. |
| 150 | [{arg1}] The local translation could not be loaded. The faulty key is {arg2}. Cause: {arg3}. |
| 70 | The module cannot be started correctly. Please contact the product support. |
| 50 | Internal module error. |
| 200 | No valid e-mail defined. Cannot send report to {arg1}. |
| 200 | File already exists in FTP server. Cannot write file {arg1} with notification {arg2}. |
| 200 | Cannot send notification {arg1}. FTP server is unavailable. |
| 200 | Error importing log data for "{arg1}" notification. |
| 70 | NTP time synchronisation failed. Please check the configured time servers and make sure that moduWeb Vision has network access to these servers. |

| Prio | EN |
|---|---|
| 70 | NTP time synchronization succeeded and is back to normal. |
| 200 | One or more historic log data traces have incomplete data and have been deleted. This is a severe error which is most likely caused by a corrupted SD card. |
| 100 | Error in node "{arg4}": Invalid {arg3} component configuration. The configured property "{arg2}" is not supported by "{arg1}" objects. |
| 100 | Error in node "{arg3}": The configured "{arg1}" element is not supported by {arg2} components. |
| 100 | Error in node "{arg3}": The configured object type "{arg1}" is not supported by {arg2} components. |
| 100 | Error in node "{arg1}": Invalid {arg2} component configuration. The configured data point "{arg3}" is not contained in the node. |
| 100 | Error in node "{arg1}": Invalid link component configuration. The configured BACnet object "{arg2}" is not contained in the node. |
| 100 | Error in node "{arg1}": Invalid link component configuration. The configured "{arg2}" with id {arg3} is not contained in the node. |
| 100 | The configured structured view layout is valid again. |
| 100 | The configured structured view is valid again. |
| 100 | Error in node "{arg1}": Invalid "{arg2}" object in node. The BACnet object type is not supported by the system. |
| 100 | Error in node "{arg1}": The "{arg2}" object refers to a non-configured device. |
| 100 | Error in node "{arg1}": Invalid {arg2} object in node. The configured {arg2} object with id {arg3} does not exist. |
| 100 | Invalid plant structure: The two nodes "{arg1}" and "{arg2}" are using the same id. |
| 100 | Error in node "{arg1}": The subordinate list refers to a child node "{arg2}" which does not exist. |
| 100 | Error in node "{arg1}": A node link component refers to a non-existent node "{arg2}". |
| 100 | Invalid plant structure: The plant structure tree contains a loop. The node "{arg1}" is a sub node of one of its children. |
| 100 | Invalid plant structure: The node "{arg1}" has no parent. |

## 23.2 FTC – Facility Touch Client

This section describes the basics of the Facility Touch Client (FTC).

### 23.2.1 What is FTC?

FTC is a Windows application that takes over the role of a web browser to ensure better operation on touch panels.
FTC offers the following benefits:

- Presentation of web content without an additional browser
- Presentation in full-screen mode
- Kiosk mode
- Virtual keyboard for different languages
- Optimisation for touch operation
- Automatic restart of the web visualisation
- Auto login with the default user
- Centralised commissioning with CASE Sun and Touch Configuration Manager (TCM)

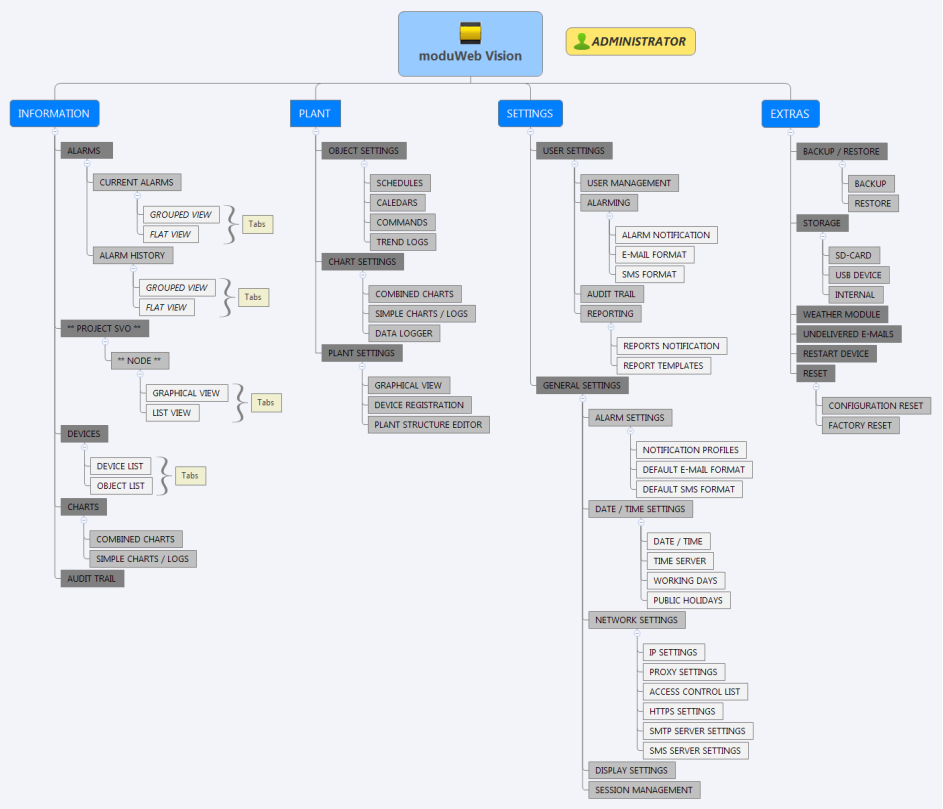
Using the CASE Sun additional tool TCM, FTC is configured with the following properties:

- URL of the moduWeb Vision server
- SVO profile
- Preferred user
- Auto-login settings

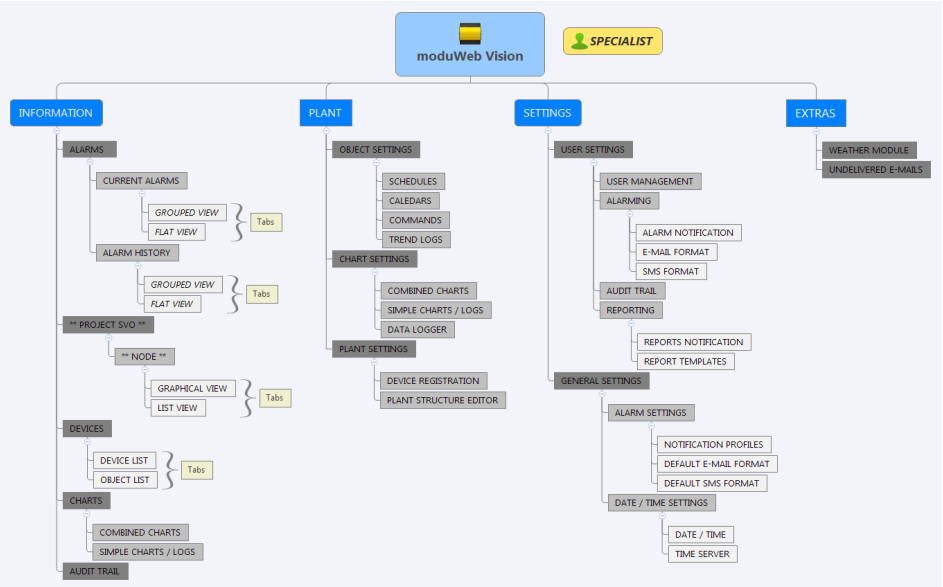
Using the touch profile and FTC, the entire operation is performed in full-screen mode. Access to the PC interface is not possible using FTC.
Communication takes place via a secure https connection.

## 23.3 Navigation tree according to user role (desktop)

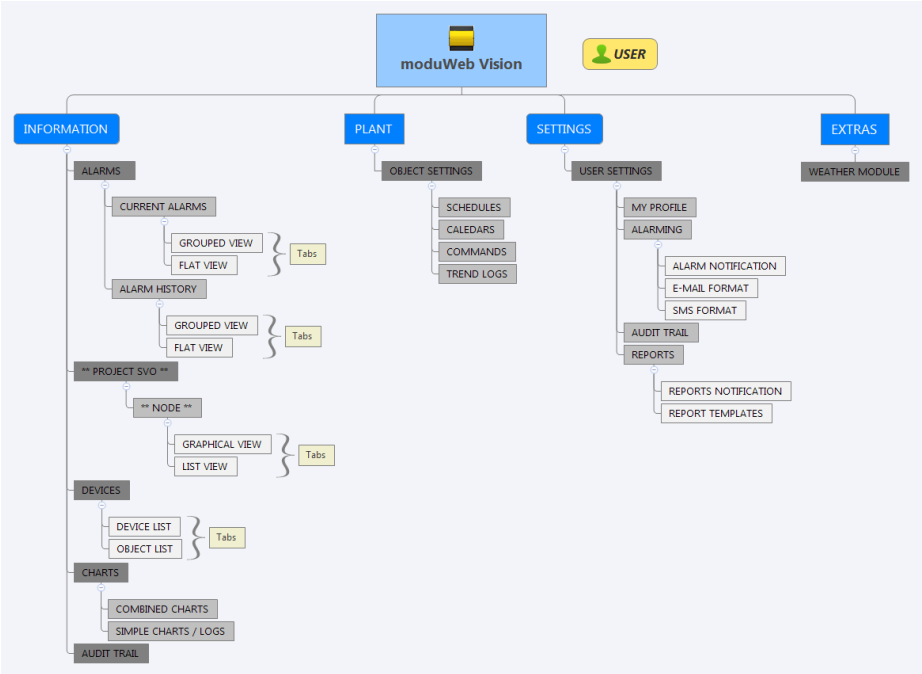
### 23.3.1 Administrator



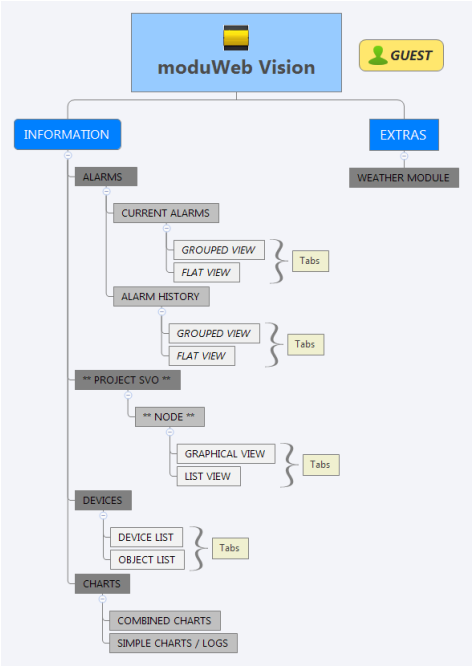

### 23.3.2 Specialist



### 23.3.3 User




### 23.3.4 Guest



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