User manual

Version 2.0

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GENERAL INFORMATION

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You are always welcome to inform us of errors or make suggestions for improving the program.

The present agreement also applies to special appendices to the manual.

This manual can contain terms and descriptions, which improper use by third can harm the copyrights of the author.

Please read the manual before beginning and keep the manual for later use.

The manual has been conceived and written for users who are experienced in the use of PCs and automation technology.

CONVENTIONS

[KEYS]	Keys that are to be pressed by the user are given in square brackets, e.g. [CTRL] or [DEL]
COURIER	On-screen messages are given in the Courier font, e.g. `C:\>`
COURIER BOLD	Keyboard input to be made by the user are given in Courier bold, e.g. `C:\>`**DIR).**
„…"	Names of buttons to be pressed, menus or other onscreen elements and product names are given within double quotes. (e.g. "Configuration").
PICTOGRAMS	In this manual the following symbolic are used to indicate particular text blocs.

	Caution! A dangerous situation may arise that may cause damage to material.
	Hint Hints and additional notes
	New New features

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1 General overview

1.1 INTRODUCTION

OPTIMA is a web based visualisation software, which is used on KNXSERVER and KNXSUPERIO, as well as on the KNXCONTROL PDK. OPTIMA provides a simple possibility to supervise and monitor home & building automation systems, which have been realized on the basis of the worldwide KNX standard. The software itself is on the respecting KNXCONTROL-device (KNXSERVER/KNXSUPERIO). The software is accessible through a web interface through a browser from any PC, MAC, touch panel, tablet or smartphone of the last generation, within the same network or remotely via internet.

1.2 REQUIREMENTS

This manual contains all the important information necessary to operate correctly on OPTIMA within the own system; nevertheless, it is assumed that OPTIMA has first been correctly configured from the installer by following the ADMINISTRATOR-MANUAL.

The instructions in this guide refer to the access via a browser from a traditional PC / MAC, if not noted differently; OPTIMA is compatible with the following browsers:

- GOOGLE CHROME (recommended, guarantees maximal compatibility)

- APPLE SAFARI

The usage of the following browsers is not recommended, since their compatibility can't be fully granted:

- MICROSOFT INTERNET EXPLORER

- OPERA

- MOZILLA FIREFOX

In order to access the visualisation locally, make sure your own PC / MAC or your mobile device is connected to the same network as your KNXCONTROL-device (also via Wi-Fi, if the network supports it). However, if you want to access to OPTIMA via internet, the local network must be configured to support a remote access via port forwarding. In both cases, specific addresses must be known:

- For local access: the IP address of the KNXCONTROL-device within the network

- For remote access via internet: the public IP address of the network to which a connection should be established

These parameters are defined by the installer or network administrator (if present) during the configuration of the KNXCONTROL-device and can be obtained from them.

1.3   FIRST ACCESS

Open a browser window and enter the IP address of your KNXCONTROL-device in the address bar; after a few seconds, a loading screen will appear. On the first access, the different informations are loaded into the local cache and stored there (HTML-client cache, DB-client cache). These information are used later to navigate in the visualisation and to command the different objects, by preloading this information is the future access accelerated and the operating is nearly at real time. Even if the browser is closed or the device is restarted the cache will be kept and no reloading is needed. The different cache technologies can be disabled if it is wanted, detailed information on how this is realized can be found in the ADMINISTRATOR-MANUAL.
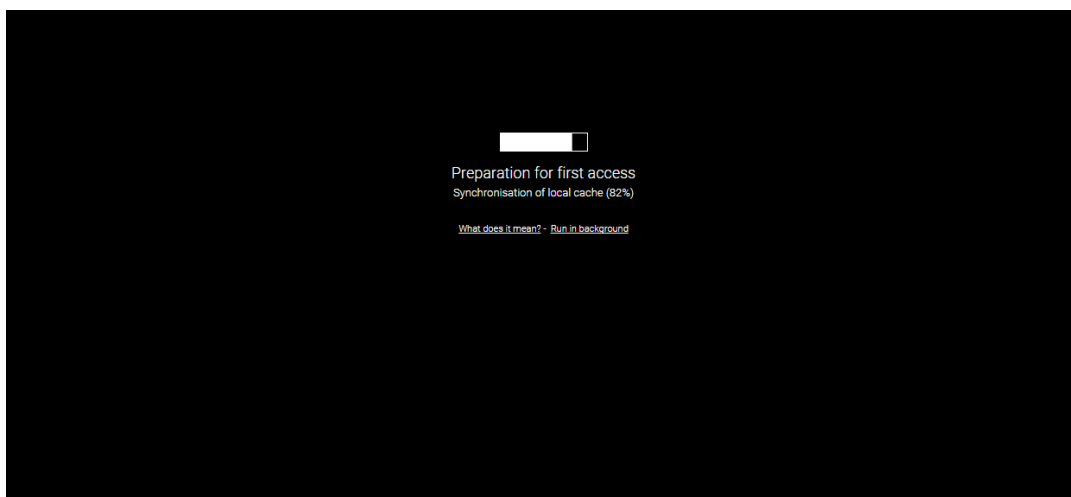
If the cache is loaded, the login window appears, just like the one shown in the following screenshot:
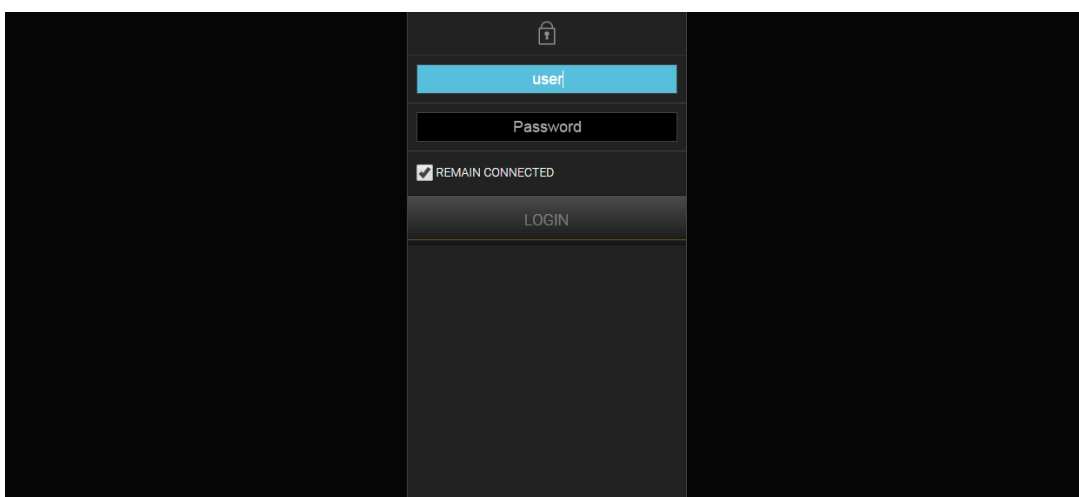
Click inside the first input field and enter the username you want to login with. Then enter the password corresponding to the entered user name in the second input field. Finally click on LOGIN in order to access the visualisation.

With the option "REMAIN CONNECTED", the login information can be saved and on the next access the login will be skipped and the login will be made automatically. If it is wanted to login on every access the option can be disabled by unchecking the box.

The credentials of OPTIMA will be defined by the installer and can be obtained from him. The factory-set login credentials are:

USERNAME	PASSWORD	DESCRIPTION
user	user	Basic user: can use the visualisation of OPTIMA, but has only very limited access to the configuration.
manager	manager	User with access to the most configuration parameters of OPTIMA, but not to the administrative configurations
admin	admin	System administrator: has full access to all aspects of OPTIMA (visualisation and administration).

Hint: If not defined differently by the installer, usernames and passwords are configured in LOWER CASE letters.

If the system integrator has it defined, it is possible to skip the login process based on the IP address of the device. On KNXSUPERIO this automatic login is used as default for the local login with the user "user"

1.4   GRAPHICAL THEMES

OPTIMA provides several THEMES for the graphical interface of the visualisation. The different THEMES offer the same functionality and the same layout, but differ in color, symbols, etc. The desired THEME can be set in the ADMINISTRATION area of OPTIMA, as described in the ADMINISTRATION MANUAL. The following screenshots show the HOME page of the visualisation area in different THEMES:
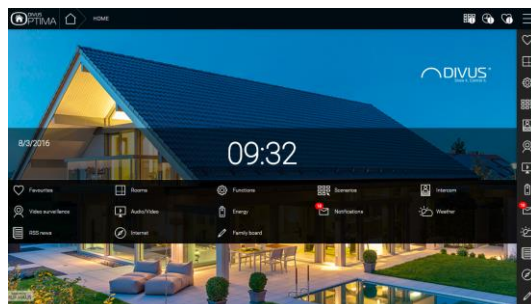
THEME „OPTIMA-EBONY"   THEME „OPTIMA-IVORY"
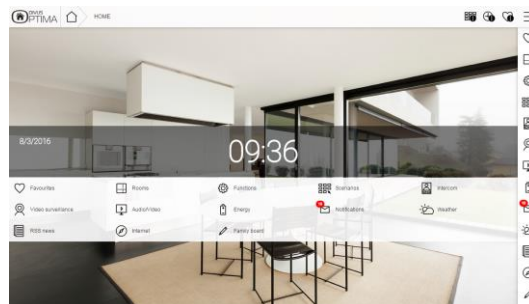
The screenshots inside this manual all refer to the THEME "OPTIMA -EBONY".

1.5   VISUALISATION LAYOUT

Once logged in, the HOME screen will be shown:

The HEADER at the top of the page contains the following elements:

- Logo of DIVUS OPTIMA

- HOME button, allows a quick return to the HOME page from every page

- Label: shows the name of the visualisation page which is currently displayed (e.g. the name of a room, the displayed functions menu, etc.)

- 3 icons for these functionalities:

    o **Customize scenarios**: this icon starts the "scenario editing" mode. More details in chapter 6 (Scenarios) of this manual.

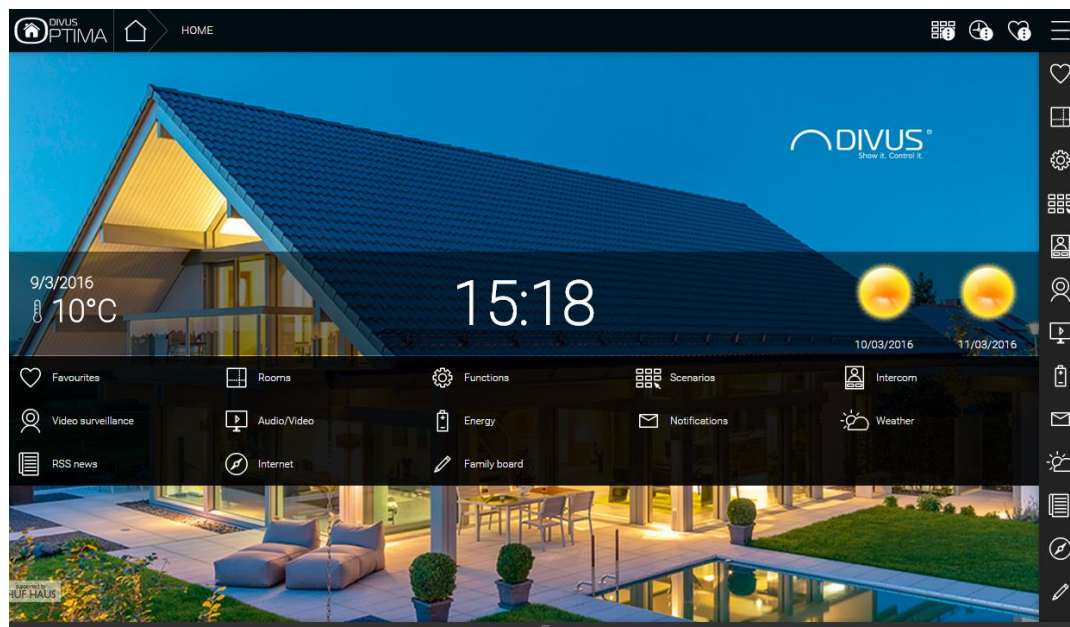   o **Schedule**: using the same mechanism as the previous icon, after clicking this icon you may choose an object to edit its time schedule. More details in chapter 5 (Scheduling) of this manual.

    o **Favourites**: after clicking this button, you may choose an object to add to the favourites page.

- Button to show/hide the NAVIGATION MENU, in the upper right corner:

    o The default behaviour of this icon is to open or close the navigation menu.

    o The setting in Administration: Customization – Options – Accessibility – "**Navigation menu always open**" may change the default behaviour, fixing the side menu in its open position.
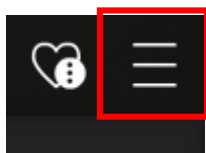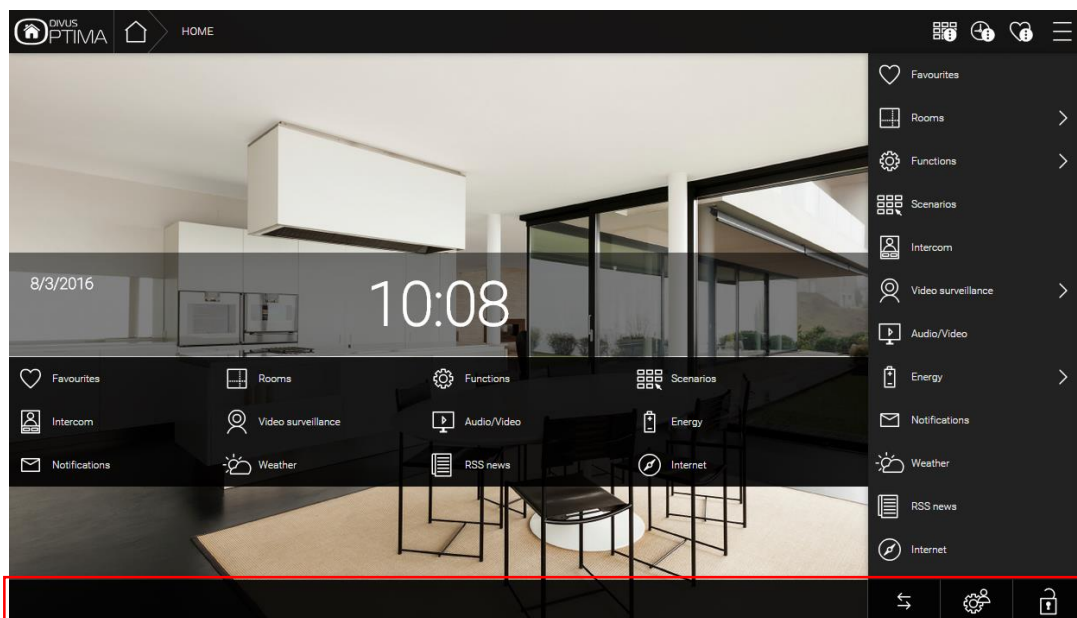
The **navigation menu icon** has another important function: it opens the horizontal bottom bar (see screenshot above) containing the icons with the following functions

	Permits the synchronization of the local cache of the KNXCONTROL device. This is only necessary if changes are made in the ADMINISTRATION of OPTIMA.
	Starts the cleaning mode. All inputs on the screen of the client device are ignored for 30 seconds; the glass of a touch screen can be cleaned easily without have to fear unwanted actions in the visualisation. This option is only available when it is enabled in the ADMINISTRATION of OPTIMA; detailed information can be found in the OPTIMA ADMINISTRATOR MANUAL.
	Permits to access the ADMINISTRATION of OPTIMA, as explained in the ADMINISTRATION MANUAL. Appears only if the current user has the necessary access rights.
	Performs the logout of the current user and in this way permits to login with another user

1.6   HOME PAGE

In addition to the already presented elements, the HOME page of the visualisation also offers the following information:

- Current WEATHER data and forecasts for the next two days (requires that an active internet connection is available and that the location for the weather information has been set correctly in the configuration area of OPTIMA)

- If the WEATHER function has been configured correctly and the option "use weather info as background image" is checked in administration, the background image of the HOME page is updated depending on the current weather data. Alternatively, a static background image can be set.

- The central part of the home screen will show the current date (left) and time (center).

- The configured entries within the navigation menu

Hint: If the displayed time / date are not correct, please make sure that the values have been set correctly in OPTIMA's configuration; the time can be set either manually or – if an internet connection is available - it can also be synchronized automatically. More information can be found in the OPTIMA ADMINISTRATION MANUAL.

Hint: All elements of the HOME page can be hidden / shown through the configuration area of OPTIMA, as described more in detail within the OPTIMA ADMINISTRATION-MANUAL. For this reason, the HOME page can also appear in a different way, if the installer previously changed these parameters.

You may choose to redirect to the favourites page or to a room of your choice. In this way, the chosen page will be shown as first page when you connect to Optima through a browser or app. The default home page may still be reached using the home icon.

Starting from Optima v. 2.0, you may also choose to have an automatic redirection to the configured homepage after X seconds. When this option is checked, the visualisation will automatically return to the home page after the configured number of seconds of inactivity.
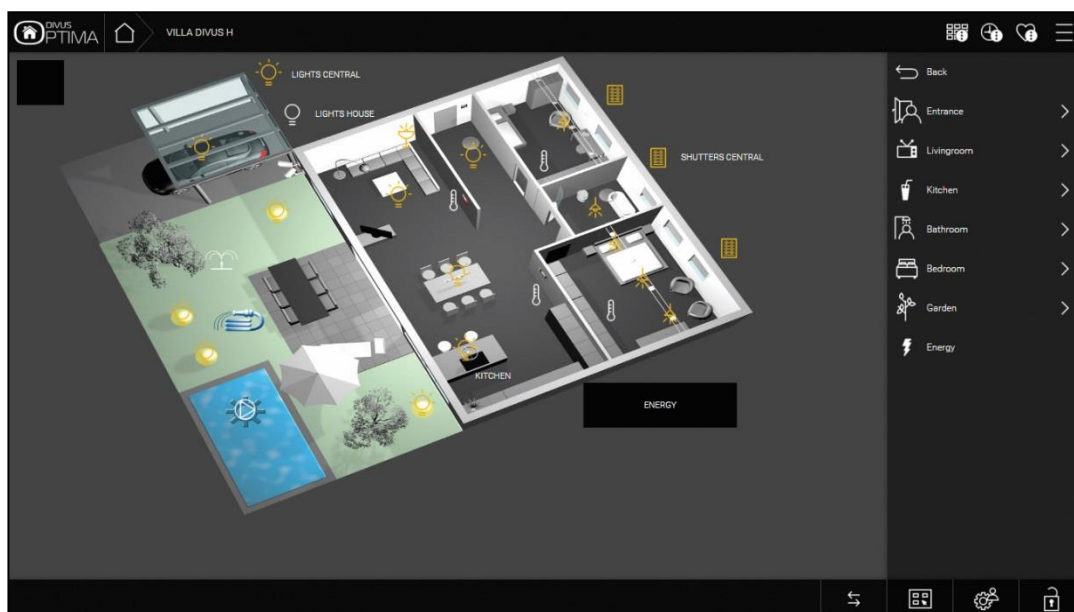
2   Rooms

2.1   INTRODUCTION

OPTIMA allows navigation structured in rooms, through which all functions of the system may be accessed. The individual pages must be created by the installer in the configuration area of OPTIMA, as described in the ADMINISTRATOR-MANUAL. The rooms are freely configurable and therefore they can also contain functions, which in the installation must not necessarily be part of the selected room. For detailed information about the different rooms and the included functions present in your project, please contact your installer.

2.2   NAVIGATION BETWEEN DIFFERENT ROOMS

Depending on the amount and type of the rooms in the visualisation, the navigation can be structured in one or more levels; if only one level is used, all created rooms are listed in the "ROOMS" entry in the NAVIGATION MENU (or HOME page).

In this case, if an entry is selected, the corresponding room is displayed and the NAVIGATION MENU remains empty:

By clicking on the BACK button it is possible to return to the list of the rooms and from there, either another room can be selected or alternatively it is possible to return back to the main menu (in this case the HOME page is displayed).

If the visualisation instead is structured on multiple levels, the NAVIGATION MENU will show a list of "sub-rooms" when a main room is opened. If the chosen room contains graphic content, it is displayed and the contained functions can be accessed immediately. If no content has been defined, the NAVIGATION MENU will show the contained rooms, while the content of the displayed page will not change. Also here, by clicking on the BACK button it is possible to navigate back to previous pages / menus up to the HOME page.

Hint: Rooms may also be used as containers of the "real" rooms. This allows e.g. to group rooms by floor number which may make the navigation in complex structures easier.

2.3   ROOMS IN GRID VIEW

The room pages can represent the configured content in different ways. The most common view mode is the GRID view, which lists the contained objects in tabular form. The GRID view can also include an image file, which can be placed either on top, on the left or on the right side of the page:
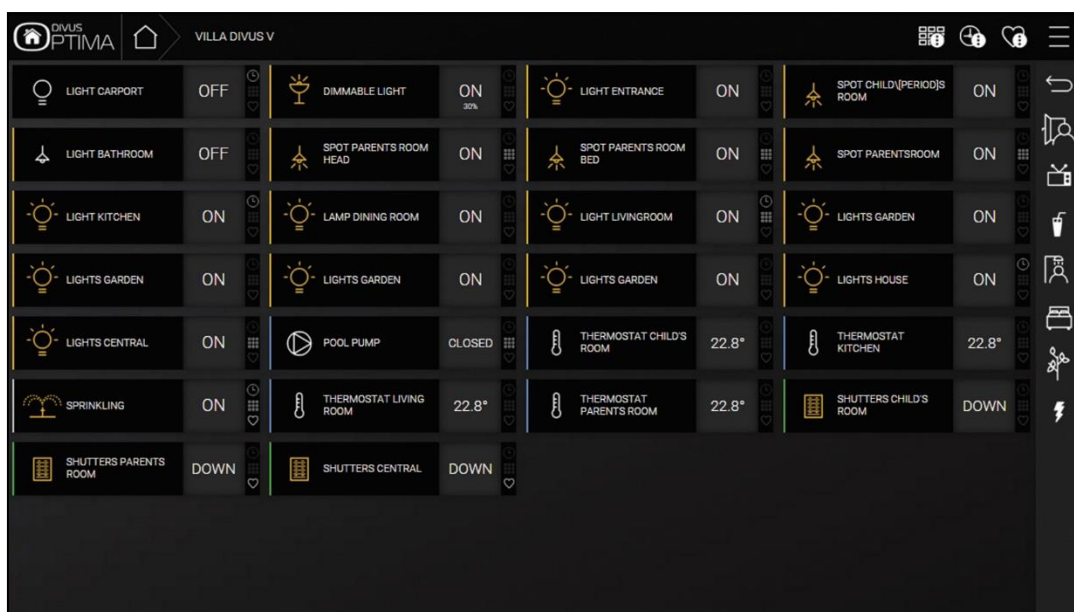
Room in grid view with image on top
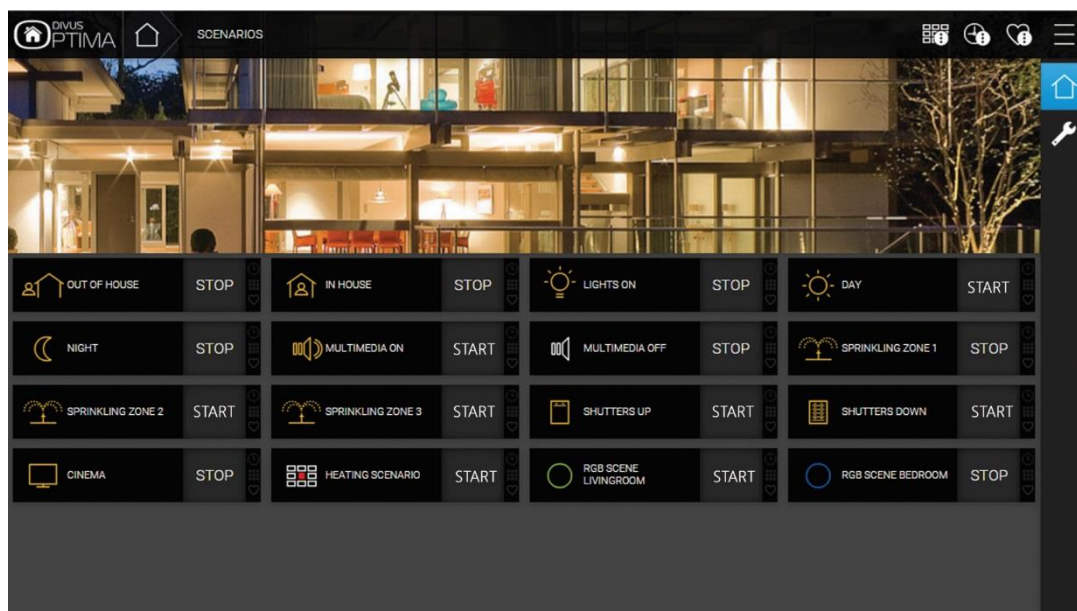
Room in grid view with image on the right
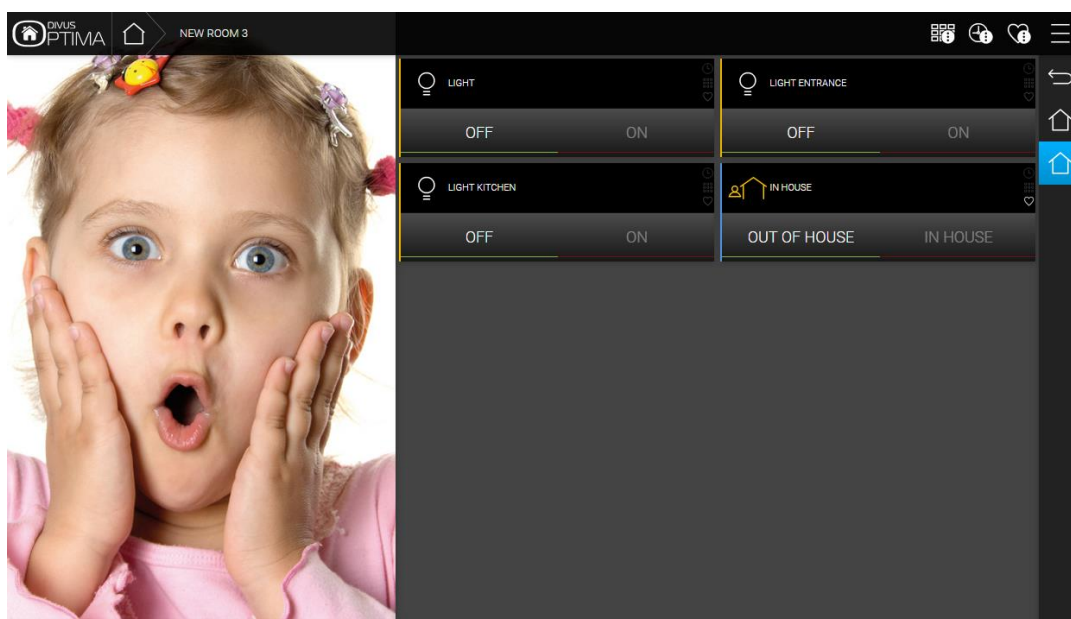
Room in grid view without image

In all variants of the GRID view the objects are automatically positioned within the available space: depending on the window width, more or less columns are displayed. For this reason, the representation of the same page can vary from device to device because of the different screen resolutions, since the objects are arranged depending on the window width. This has the advantage that you don't have to worry about adapting the pages for different resolutions. Of course also the choice of representation of the single objects between the compact and the expanded design will need different amounts of space.

In the GRID view the functions are displayed within a "box", which provides a series of information and buttons. Depending on the object type and the configuration made by the installer, the boxes can be shown in a different way, in order to best meet the requirements for the single operations.

The graphic of the box of a "Light On/Off" function is shown below (compact and expanded design):
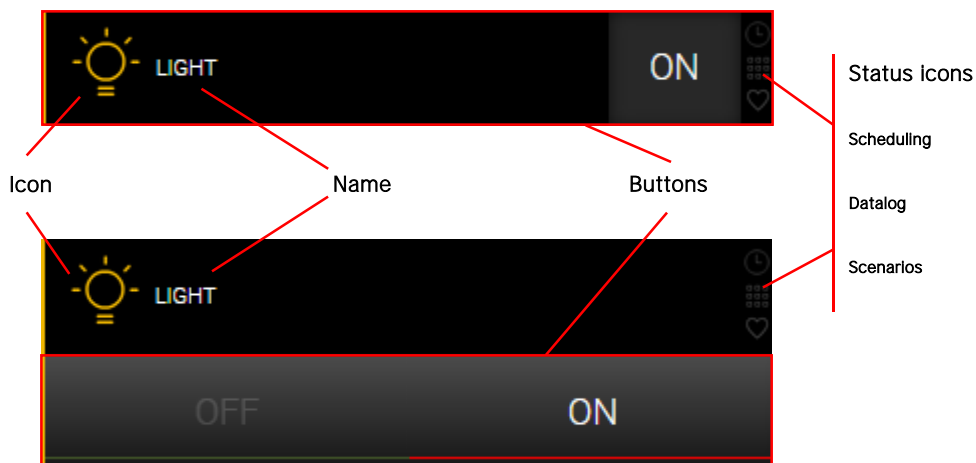
The ICON represents the intended purpose of the object in a graphical way and changes depending on the current state of the object (on, off, open, close etc.). The NAME describes the function of the object and allows an easy identification of the function within the system.

The STATUS ICONS on the right show information about the object itself:

- Scheduling: active when the object is associated with a time schedule and is therefore controlled by a timer

- Datalog: active when the object is logged and a graphic history of the object is traced

- Scenario: active when the object is part of a scenario and is controlled together with other objects

In the lower part of the box some BUTTONS can be found, through which the object can be controlled. Those are directly dependent on the object type: the previous example of the "Light On/Off" function has buttons to turn on or off the associated light (the button that corresponds to the active state is highlighted).

When using the compact design, the whole object's area will serve as toggle button for ON/OFF or other two state functions. In the expanded design, the buttons are in the lower half of the area and the two states are labelled in their respective push area.

In the case of blinds or – more in general - motor controls, three buttons are available (move up, move down and stop):
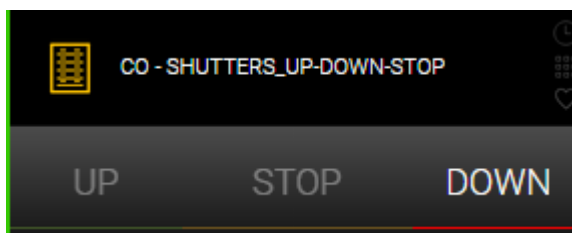
If a dimming function is used, it is possible to turn on and off the light, and in addition through a slider element the brightness value can be changed:
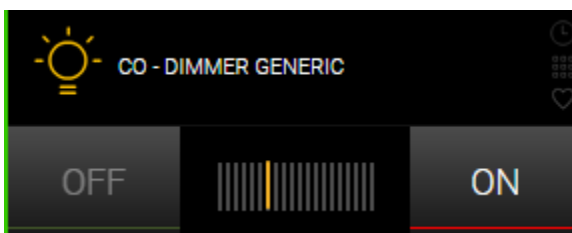
A list of the various types of functions and their boxes can be found in the chapter "FUNCTIONS" of this manual.
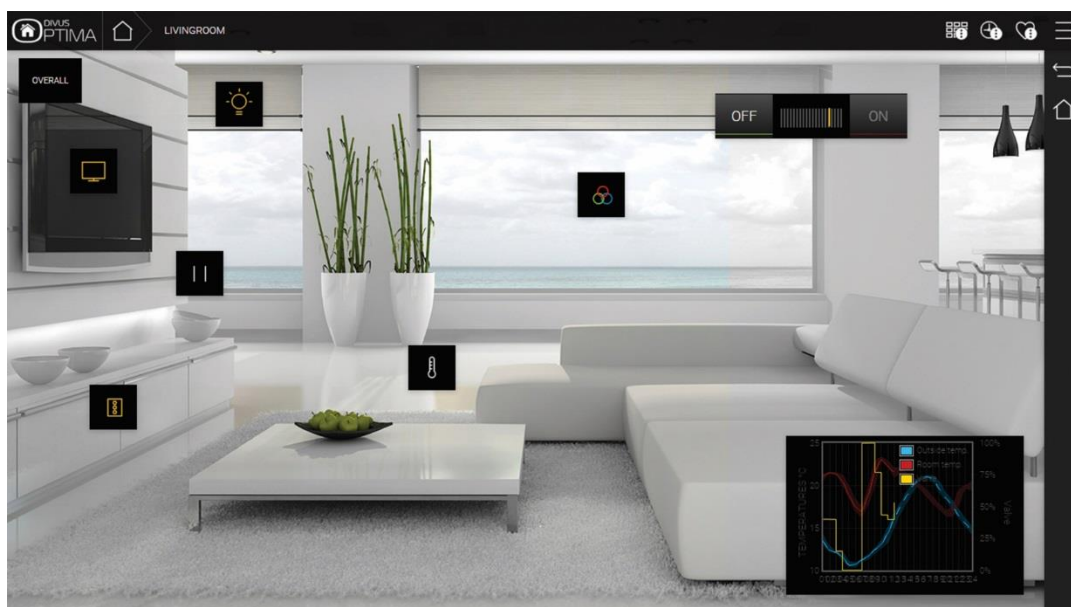
2.4   ROOMS IN BACKGROUND VIEW

2.4.1   VISUALISATION

In alternative to the GRID view, the rooms can also be displayed in the BACKGROUND view. In this case, an image file can be defined as background image for the related room; afterwards it is possible to position the individual functions directly on the image, as shown in the following screenshot:

Normally, only the icons of the functions are displayed in this view mode (and in some case a value directly below the icon). Clicking on the icon, the box of the related function is displayed, which shows the same information as in the GRID view. If another object is clicked or the current page is left, the box is closed automatically. In addition, the box closes by itself after a few seconds.

Some objects (e.g. "Light On/Off") behave slightly different when they are displayed in BACKGROUND view: a click on the icon will trigger directly a toggle action on the object).

2.4.2   CUSTOMIZATION

If the logged in user has appropriate permissions, he can change the content of a room in BACKGROUND view in the following way:

- Open the desired room

- Open the NAVIGATION MENU through the appropriate button (if closed)

- Click on the button "EDIT PLAN" in the bottom TOOLBAR

- Use the CUSTOMIZATION MENU on the right side (replacing the normal content of the NAVIGATION MENU)

When you first access the page in editing mode, all the objects will be located in the upper left corner. Simply click on the first object and drag it to the desired location within the page. Repeat this process for all objects. The currently selected object is identified by a red border; it is also possible to select multiple objects by holding down the CTRL key and to move them simultaneously. Also other changes in the right menu will affect all the selected objects simultaneously.
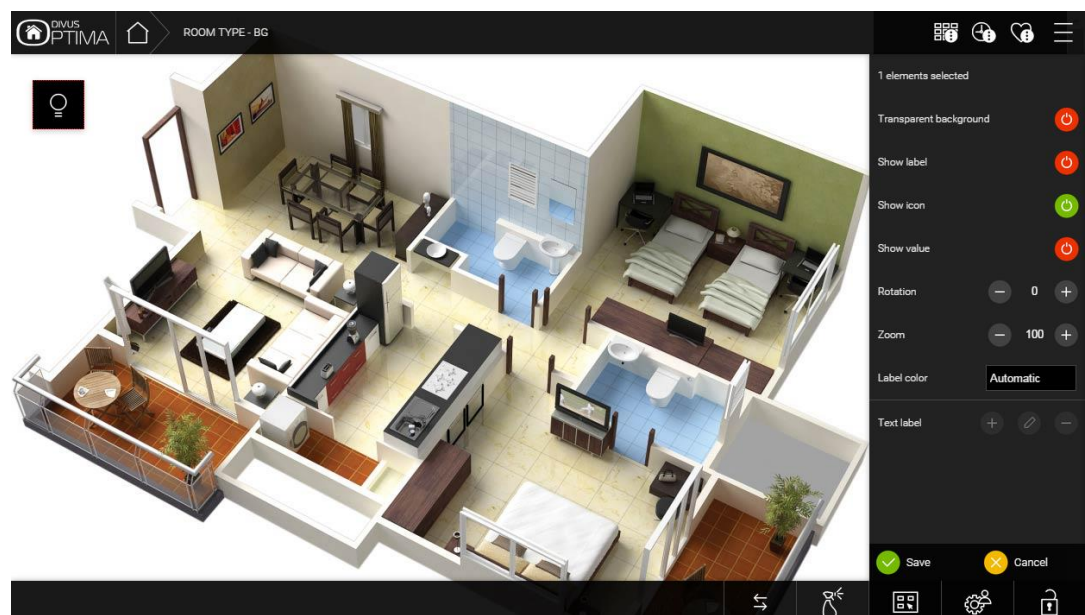
If at least one object is selected, in the CUSTOMIZATION MENU the following actions can be performed:

X ELEMENTS SELECTED	Shows the amount of currently selected objects. To deselect an object or select multiple objects use the CTRL key while clicking.
TRANSPARENT BACKGROUND	Shows/hide the background of the icon
SHOW LABEL	Shows/hides the text label of the object
SHOW ICON	Shows/hides the icon
SHOW VALUE	Shows/hides the value of object
ROTATION	Allows to rotate the selected object(s) of the degrees set here
ZOOM	Icons may be adjusted in size in the range between 25% and 500%.
LABEL COLOR	Allows to customise the label's colour
TEXT LABEL	Allows to add an independent text label to a room. To activate the PLUS icon, no object must be selected.

A special case occurs when a room contains other rooms ("sub-rooms"): in this case the contained rooms are represented by an empty box (black when using the theme "OPTIMA-EBONY" and white for "OPTIMA-IVORY"). This box can also be moved to the desired position like other objects and it's possible to change also the size of the box through the elements displayed on the borders of the box (the pointer turns into a pad, if these elements are hovered). The box can also be kept fully transparent by using the option "Hide Shadows" (with the exception of a slight edge, which appears only in editing mode for orientation purposes).

In this way transparent, TOUCH-SENSITIVE areas can be created, which can be used to access the sub-rooms: after termination of the editing of the room, a click in the area covered by the box will open the page of the sub-room.

Other objects can be placed directly on such TOUCH-SENSITIVE areas. In this case, a click on the icon commands the object, while a click beneath the object (on the TOUCH-SENSITIVE area) will open the related room's page.

If the option "Show Title" is enabled for such an area, the name of the room will be shown in the center of the area.

If you want to stop the editing of a room, this can be done either by clicking the SAVE button (green check mark, saves all changes) or by clicking the DISCARD button (yellow X, discards all changes).

2.4.3   FOLLOW ME

The „FOLLOW-ME" function enables the automatic alignment of the background image in dependency of the orientation/position of a mobile device.

This function is only available accessing the OPTIMA with an iPad or an Android-Tablet with the OPTIMA-App or a compatible Browser. OPTIMA recognizes the position of the used mobile device over the integrated compass- and acceleration sensors in real time (mostly available in the mobile devices of the newest generation). If the device is turned (compass) or moved in a direction (acceleration sensor) OPTIMA can react accordingly and turn or move the background image including the contained objects. To use the "FOLLOW ME" function the room has to be configured accordingly. Details can be found in the OPTIMA ADMINISTRATOR-MANUAL

The "FOLLOW ME" function provides two possibilities to interact with the environment:

- COMPASS

- PANORAMA

The used mode is defined during the configuration:

If the mobile device is hold horizontally, to look at its screen from above, the calibration can be made in   compass mode and the corresponding room will be used in this mode on mobile devices.

If the device is hold vertically, similar to a picture, so that it's possible to look at its screen directly forward, the calibration can be made in panorama mode and the corresponding mode will be used on mobile devices.

COMPASS

As the name suggests, this mode manages the rotation of the background image of a room using the compass sensor of the mobile device. Before the automatic alignment of the background image may be used, the direction that should be used as reference has to be defined. To do this, click on the compass symbol in the lower left area to start the calibration. Then rotate the device so that the background image is aligned to the right direction according to the real location. Afterwards click on "click here" to save the configured direction.

If the mobile device is rotated, also the background image including the contained objects is rotated so that it is always aligned to the previously defined direction. This function allows an intuitive Orientation in a room.

PANORAMA

The panorama mode does not align the background image of a room to a certain direction. Instead, it gives the possibility to scroll the background image according to the direction the used mobile device is moved to. The background image including the objects is moved accordingly to the direction the used mobile device is moved to. This makes the panorama mode really useful if big background images are used. Normally it would be necessary to scroll left, right, up, and down in a background image with a bigger resolution as the resolution of the used mobile device, to reach all objects. In the panorama mode, the scrolling can be made in intuitive way by moving the mobile device in the corresponding direction. To use the panorama mode, the device has to be calibrated first. Simply click in the room where the panorama mode shall be used on the compass symbol in the lower left area; follow the instructions showing up. During the calibration the left and the right border has to be defined, first it is needed to define the left border, so the mobile device has to be hold to in the direction where the room matches the displayed background picture; with a click on the displayed window this alignment of real room and background picture can be saved. Then you will be prompted to calibrate the right border of the room; the procedure is the same as already described for the left border, but just for the right side of the room.

Then the mobile device can be moved in the defined area and the page is scrolled to the part of the background picture the mobile device points to. It the device is moved to the left, the background picture including the

contained objects is scrolled to the left. This way in a room with a big background picture all objects can be reached easily by moving the mobile device intuitively inside the corresponding room. If the device is hold still the reached sector of the background image is hold until the mobile device is moved again.

The "FOLLOW ME" function can be turned on and off with a short click on the compass symbol. The compass symbol shows the state of the "FOLLOW ME" function, being transparent or solid.

The calibration can be repeated by a long click on the symbol.

Hint: The "FOLLOW ME"-function was tested on newer iPad models and on some Android tablets; generation 1 iPads can't use the "FOLLOW ME" function because of special privileges of Apple in iOS6. On some devices the compass can be used only in certain directions, here it may be needed to turn the display through 180 degrees.

3   Functions

3.1   INTRODUCTION

OPTIMA allows not only the navigation through rooms, but also a navigation structured by object types via the "FUNCTIONS" entry in the NAVIGATION MENU. The provided functions with the respective colours are:

- SYSTEM ☐

- ILLUMINATION ☐

- CLIMATE ☐

- SHADING ☐

- MULTIMEDIA ☐

- SECURITY ☐

- ENERGY-MANAGEMENT ☐

- WEATHER ☐

- ACCESS CONTROL ☐

- DATE/TIME ☐

- TECHNOLOGIC ☐

Some of these entries could be disabled in your project, depending on the configuration made by the installer.

Each function is shown on its objects by a subtle coloured strip on the left border of the objects
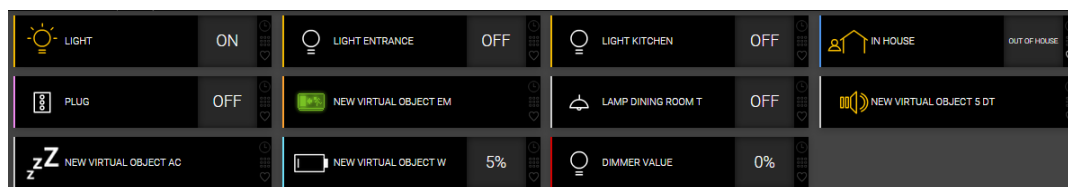
If a function entry is selected from the NAVIGATION MENU, a special GRID view page showing all objects assigned to the corresponding function type will appear.

If a function page contains a large number of objects, it is possible to scroll within the displayed page; depending on the used device, either the mouse wheel (if accessed from a PC / Mac) or scroll gestures (for touch devices) can be used for this purpose.
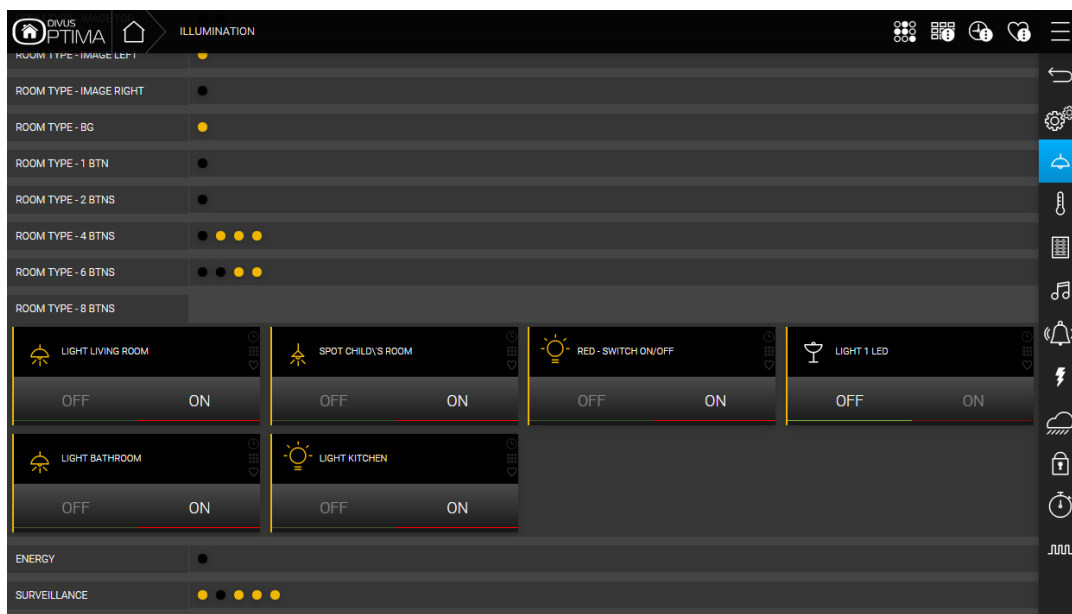
Optima 2.0 introduced a new, compact overview of the single rooms showing their respective content as black (for off devices) or coloured (for on devices) dots. This instantly shows where there are e.g. lights turned on or off. When you click on a room, it shows/hides its content and allows to regulate the single contained objects.

The following pages show the primary object types and their representation / usage within the pages of OPTIMA.

3.2   ILLUMINATION

3.2.1 LIGHT ON / OFF

The "Light On/Off" – function is shown in the visualisation as shown below (expanded design):

The buttons "ON" and "OFF" permit to control the connected light; the button, which corresponds to the current state of the object is highlighted in a different color (furthermore, the icon in the upper left corner shows the current status).
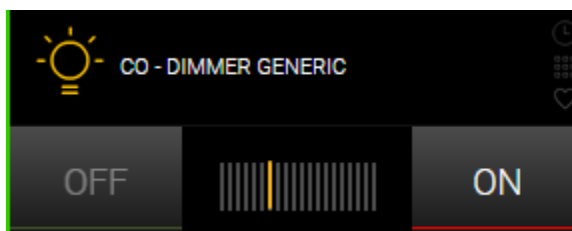
In the software several icons are available for illumination; each icon shows a different illumination device:

|	
	Light - generic
	Lamp
	Spot
	Standard lamp
	Plug (outlet)

3.2.1   DIMMER

Dimming functions are represented in the software through the following box:

The buttons "ON" and "OFF" permit to switch the light on and off directly. Using the slider scale, the brightness of the light can be set. If the light is controlled through the "ON" or "OFF" button, the slider scale is automatically refreshed. In addition, the brightness value is shown under the icon in the upper left corner and also the brightness of the icon itself changes with the current dimming value.

3.2.2   RBG LIGHT

This special object allows the control of light points with RGB control; these objects are represented in the rooms and function pages in the following way:
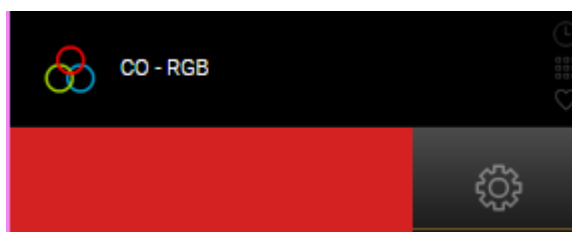
In In the lower left side of the box the last set color is shown, while the button on the right side opens the following pop-up window:
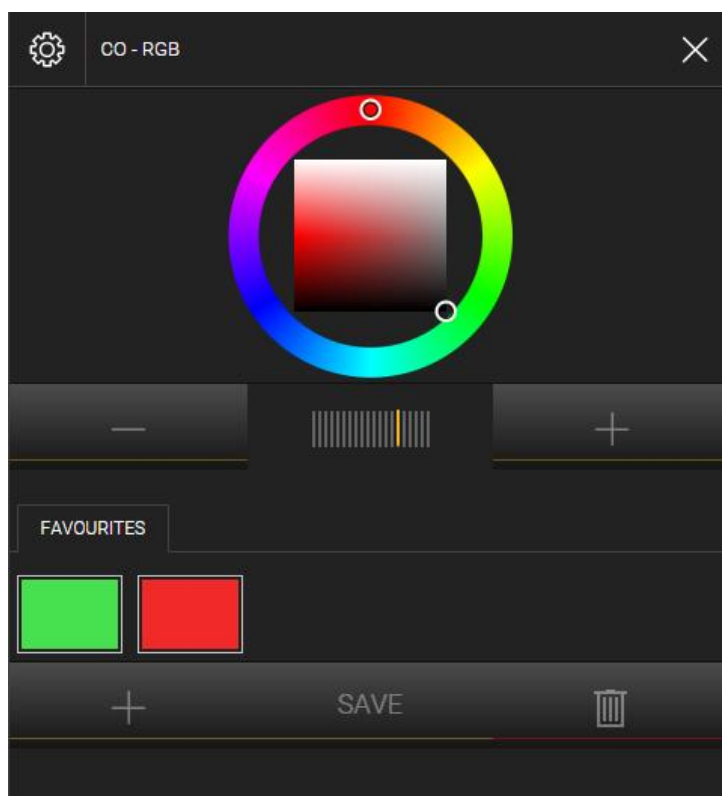

Through the displayed graphic elements it is possible to set the desired color of the related RGB light in a simple way: while the ring permits to select the color spectrum, the rectangle permits to tune brightness and saturation of the color. If available, also the brightness of the RGB light itself can be adjusted through the slider scale at the bottom.

In order to store a new color combination in this way, please click on the "+" button; in the connection you can simply select the desired color and store it using the SAVE button. In order to select the color in a second moment, it is enough to click on the just created field. Through the DELETE button existing color combinations can be removed from the system.

3.2.3   COLOR TEMPERATURE

Through this object it is possible to set the color temperature using the white balance of two light sources. This can be configured within the following pop-up window:
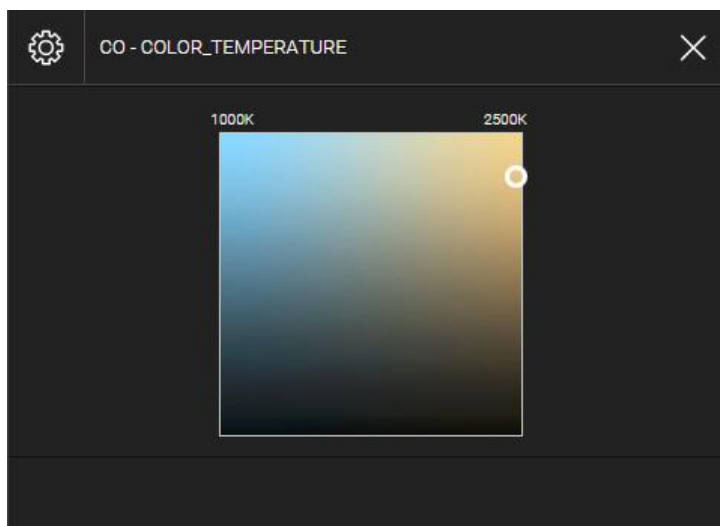
If a point within the indicated square is selected, the corresponding color temperature is correctly set by the two light sources.
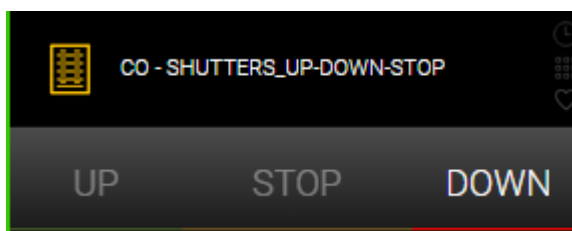
3.3   SHADOWING, DOORS AND WINDOWS
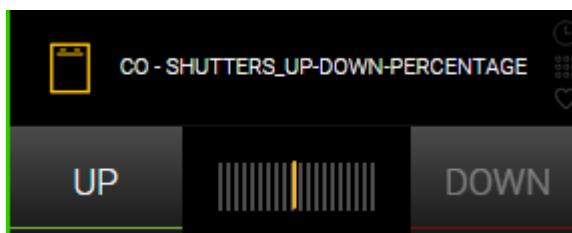
3.3.1   SHUTTERS UP/DOWN/STOP

These object types allow the operation of motor control objects (e.g. blinds, shutters) by using the "UP" and "DOWN", as well as the interruption of the operation using the "STOP" button:

The buttons "UP" and "DOWN" are highlighted in a different color, depending on the last command sent; the "STOP" button will not display any state, but show up a color mark for a few seconds, when it is pressed.

3.3.2   SHUTTERS UP/DOWN AND PERCENTAGE VALUE

These object types allow the operation of motor control objects (e.g. blinds, shutters) by using the "UP" and "DOWN", as well as a percentage configuration going from 0% (totally open) up to 100% (totally closed):

3.3.3   SHUTTERS / CURTAINS WITH LAMELLAE

These object types allow the operation of motor control objects with lamellae   (e.g. blinds, shutters, curtains, etc.) by using the "UP" and "DOWN" buttons (movement) and "CLOSE" and "OPEN" buttons (lamellae):
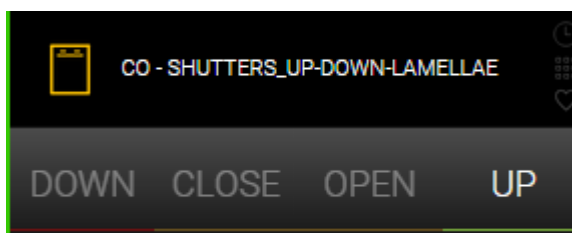
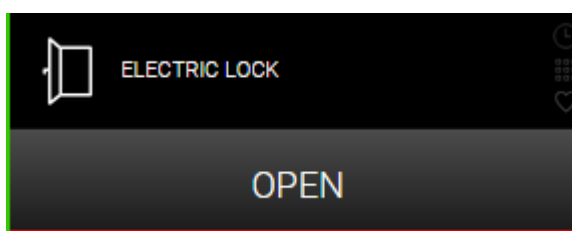
3.3.4   DOOR / WINDOW OPEN / CLOSED

Objects of this type allow the sending of an opening or closing command to an electrical lock (e.g. a window or a door):
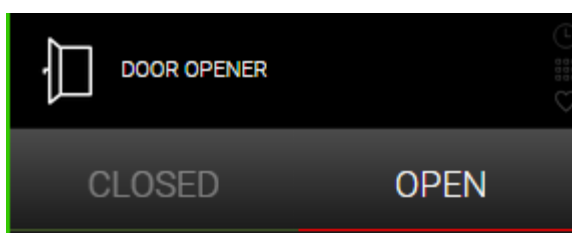
The button corresponding to the current state of the lock is highlighted in green or red color.

3.3.5   ELECTRIC LOCKS

This object is similar to the previous object, with the difference that only the "ON" command can be sent:

In diesem Fall hat das Objekt keinen Status und die Schaltfläche ändert die Farbe nur während der Bedienung. Das Objekt versendet den Öffnen-Befehl für den Zeitraum, welcher vom Systemintegrator/Installateur bei der Konfiguration der Anlage festgelegt worden ist (normalerweise wenige Sekunden).

3.3.6   STATE DOOR / WINDOW CONTACTS

These objects show the state of door and window contacts:
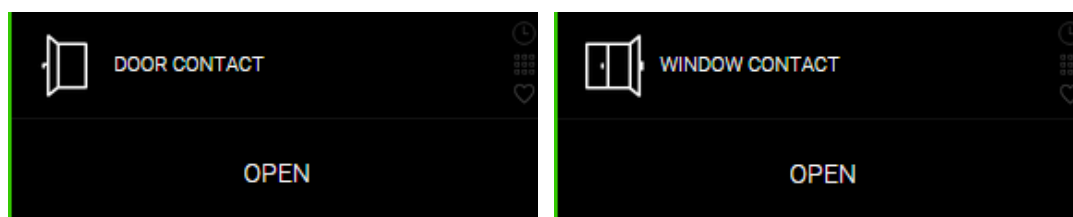
In this case, no commands can be sent: therefore the lower part of the box contains no buttons, but just shows the state of the associated contact.

3.4   THERMOREGULATION

3.4.1   THERMOSTATS

The administration of thermostats within the visualisation of OPTIMA strongly depends on the manufacturer / type of the used thermostat and their respective configuration. The instructions in this manual refer to the most common configuration methods and try to represent the maximum of available objects. In your own configuration, some of the functions presented may not be used.

The following graphic shows the typical box of a thermostat within the rooms or function pages of the visualisation:
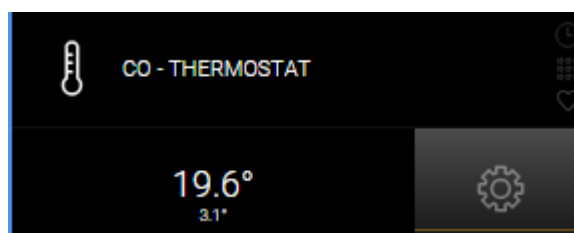
In the display on the left side the measured temperature of the thermostat is shown, which is also shown directly below the icon (useful for BACKGROUND view, where the box is initially closed). By clicking on the button on the right side, the following pop-up window will appear:
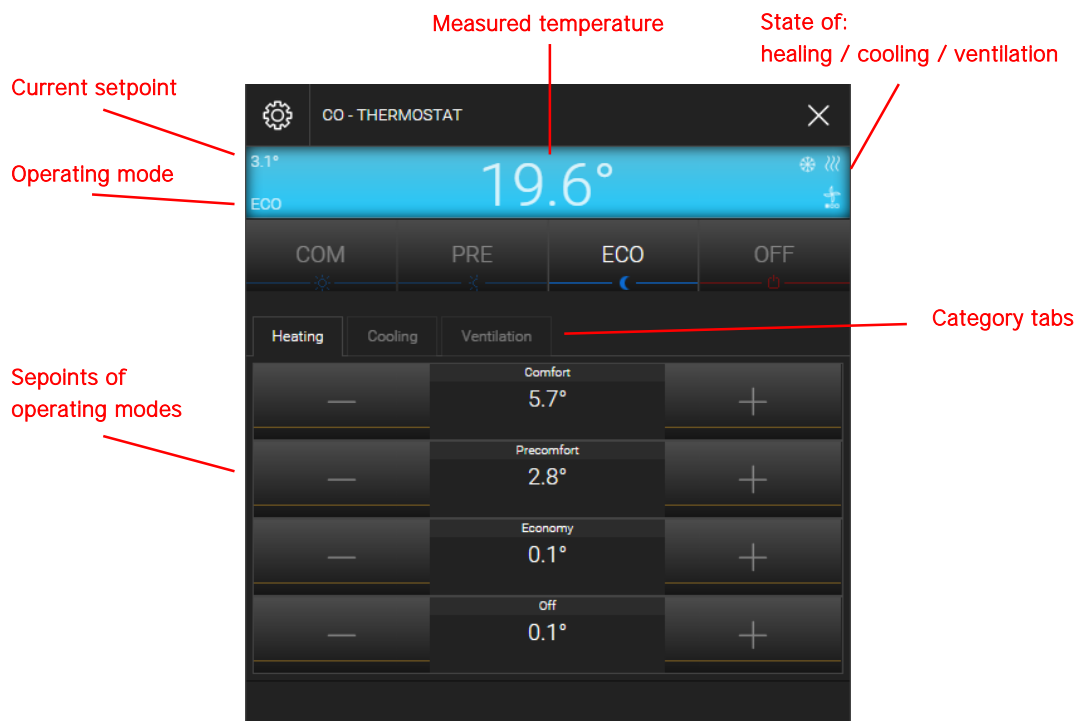
The "DISPLAY" in the upper area contains the following information about the thermostat:

|	
MEASURED TEMPERATURE	Measured ambient temperature of the thermostat
CURRENT SETPOINT	Temperature setpoint, towards which the thermostat regulates the temperature; depends from the selected operating mode of the thermostat.
STATE HEATING / COOLING / VENTILATION	State icon, which shows the active mode of the thermostat (heating, cooling, ventilation)

The buttons below the display are used to change the OPERATING MODE of the thermostat. Depending on the type of thermostat, different setpoints can be adjusted for heating, cooling and ventilation (if present).

The tabs on the category selection (if configured) determine the items displayed in the bottom area of the object:

HEATING	Allows the configuration of the several heating setpoints for the different operating modes of the thermostat
COOLING	Allows the configuration of the several cooling setpoints for the different operating modes of the thermostat
VENTILATION	Permits to control the ventilation (automatic or manually); by selecting manual control, the single ventilators can be controlled.

The following screenshot shows an example of a thermostat with active "VENTILATION":

The "SCHEDULE" button (if enabled by the installer) allows time scheduling of the thermostat functions; for further details, please refer to the chapter SCHEDULING of this manual.
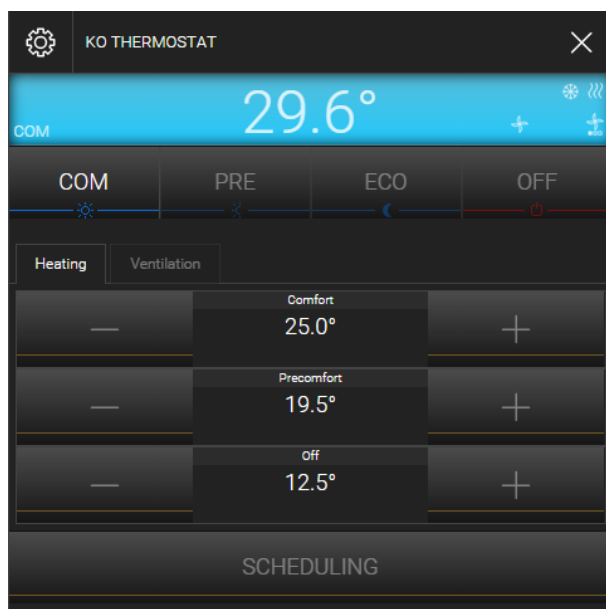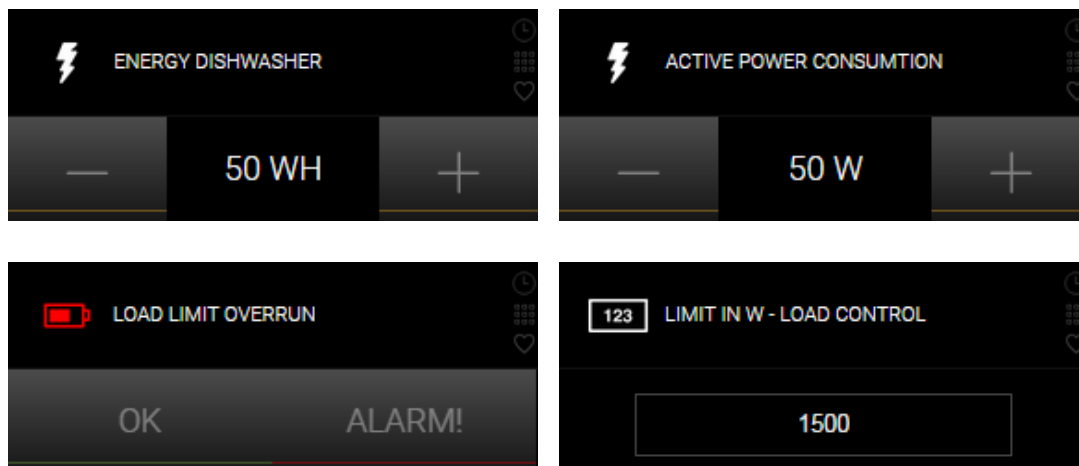
3.5   ENERGY MANAGEMENT

OPTIMA provides various types of objects, through which various energy information (which are provided from KNX energy counters installed in the system) can be represented in the software. Furthermore, the parameters of load-controllers can be actively controlled. The following graphics show some examples of the existing object types:

These objects can be connected to rooms, just like all other objects, in order to show individual consumptions, or they can also be used in combination with load controllers for the representation of the total consumption. Additionally, OPTIMA offers a separate area called "ENERGY MANAGEMENT", accessible through the NAVIGATION MENU. This section shows a complete overview of the current power consumption. For more information about the ENERGY MANAGEMENT, please refer to the appropriate chapter in this manual.
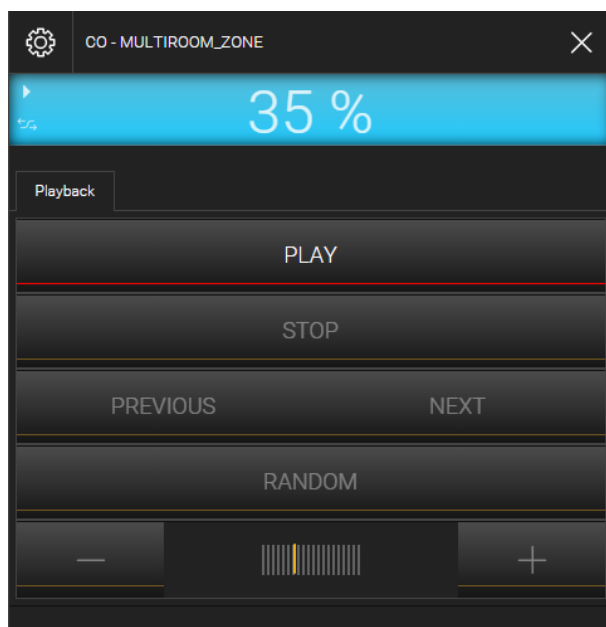
3.6   AUDIO

3.6.1   MULTIROOM – AUDIO - ZONE

In OPTIMA it is possible to manage the single zones of a compatible multi-room audio system (e.g. SONOS, DUNE) using the following pop-up window:

The pop-up can offer the following action buttons (some of them could be missing in your configuration, since the buttons depend on the functionalities provided by the installed audio system):

- PLAY/PAUSE

- STOP

- PREVIOUS / NEXT track

- Playback mode: NORMAL, RANDOM or REPEAT

- VOLUME control

4   Favourites

4.1   ADDING / REMOVING OBJECTS TO THE FAVOURITES PAGE

With the FAVOURITES page OPTIMA offers a special page, which can contain the most frequently used functions. The FAVOURITES page can be accessed directly from the NAVIGATION MENU or the HOME page.

In order to add an object to the FAVOURITES, please follow the steps below:

- Open the room/page containing the target object

- Click on the *Favourites* icon in the title bar (upper right)

- A light blue bar appears on the top of the page with the message "*select an item to add to the favourites*"
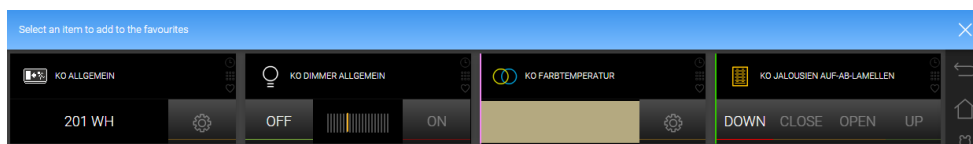
- The object you now click on will be added to the favourites page. To interrupt the procedure, click/tap on the upper right X symbol.

- To remove an object from the favourites, repeat the same procedure from the favourites page: this time the clicked/tapped object will be removed from the favourites page.
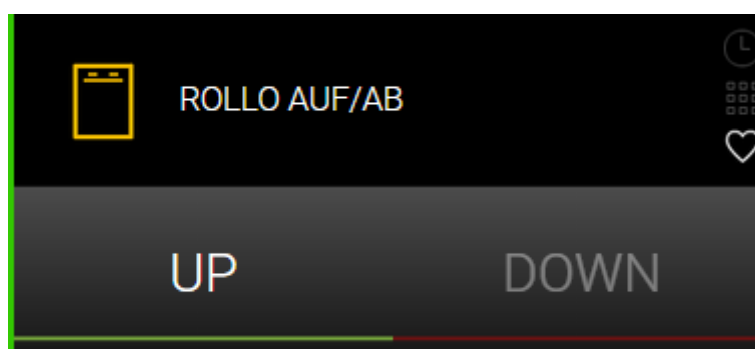

Added to Favourites

5 Scheduling

5.1 INTRODUCTION

OPTIMA allows the time scheduling of all objects that are present in the rooms and function pages of the visualisation. If a time schedule is active, the installed KNXCONTROL device controls the related objects, even if no one is in the building. This chapter shows how a schedule can be set up, from a simple daily scheduling to a complex planning with the year calendar.
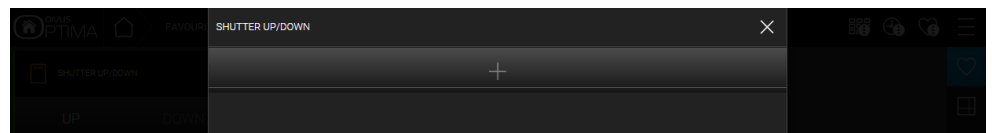
5.2 TIME SCHEDULING OF OBJECTS
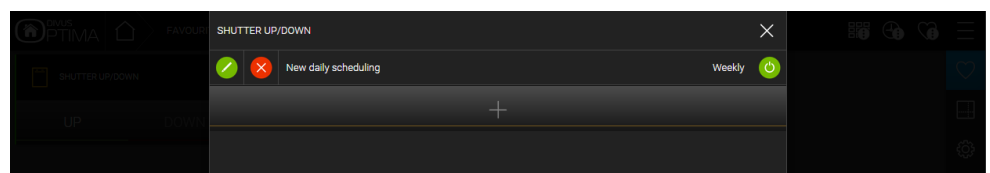
To set up a time scheduling:

- Go to the room/page where the target object is located

- click on the *Schedule* icon in the title bar (upper right)

- A light blue bar appears on the top of the page with the message "*select an object for scheduling*"
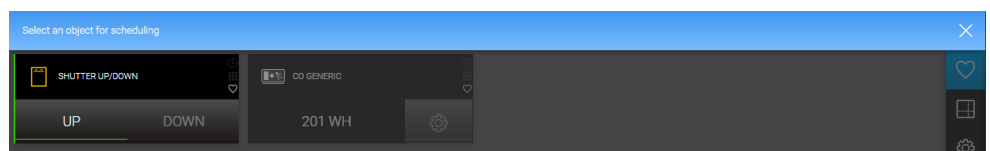
- When you click/tap on an object now, it will open the time scheduling popup window

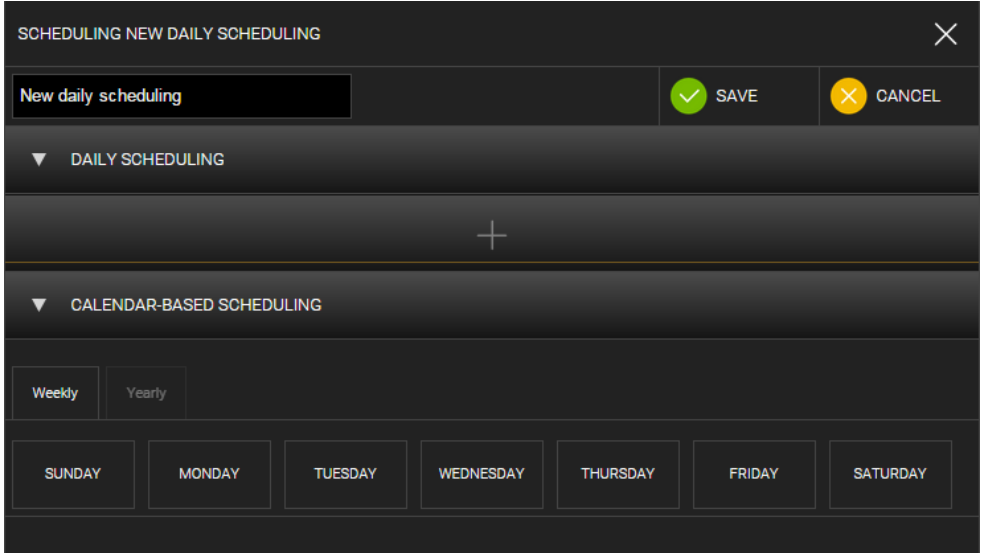

- A click on the plus will show the new entry

- The icons here have the following functions:

 Edit this scheduling

 Delete this scheduling

 Activate/deactivate this scheduling (toggle)

- The main scheduling page will open when you click the *edit* icon. The individual time schedules are always based on daily activities (from 00:00 to 23:59).

In the upper area, a title can be assigned to the scheduling, through which it can be easily identified. It is recommended to define the title in a way that it's possible to easily understand what actions the scheduling contains, to facilitate the configuration and usage of the scheduling.

Example: "Irrigation Monday-Friday" or „Garden lights weekend"

The section "DAILY SCHEDULING" allows the configuration of one or more actions that should be executed during the period of a single day. To add new actions, simply click on the "+"-button and for each action configure the following parameters:

- Hour

- Minute

- Action to execute

- Value to set (if available)

The section "CALENDAR-BASED SCHEDULING" defines whether the configured actions will be executed on one or more days of a week or ALTERNATIVELY on one or more days selected through the yearly calendar.

In the case of the weekly-scheduling, the individual days of the week can be selected by clicking the appropriate buttons at the bottom.The following screenshot shows the scheduling of a thermostat with multiple daily actions, active from Monday to Friday:

To save the scheduling, click on the SAVE button in the upper right. To discard the editing, simply click on the ⊗ CANCEL button. To create a complete yearly calendar, the single days on which the defined actions should take place can be selected in the calendar available in the "YEARLY" section of the "CALENDAR-BASED SCHEDULING". This type of scheduling also allows the omission of individual days to take care of holidays or vacations in the weekly scheduling.

Hint: If several individual schedules are defined for the same day, OPTIMA will give priority to the schedules of type "YEARLY", since - as already mentioned - the creation of exceptions, e.g. for holidays, can be configured only within this type of scheduling. If no yearly scheduling is defined, the weekly scheduling is executed without deviations.

Attention: within the same scheduling it is ONLY possible to use EITHER the WEEKLY OR the YEARLY calendar scheduling (not both!). Exceptions, as described above, must always be configured in a SEPARATE weekly or yearly scheduling!

It is furthermore possible to disable individual schedules and therefore prevent their execution, without having to delete the defined schedules. This can be done through the button activate/deactivate icon on the right side of the time scheduling row. In the screenshot below the scheduling "HOLIDAYS" is disabled and is therefore ignored by the system, but may be re-activated in the future.

6 Scenarios

6.1 INTRODUCTION

OPTIMA allows the automatic execution of different commands; these sequences are called "SCENARIOS". The entry "SCENARIOS" in the NAVIGATION MENU displays all the scenarios that have been configured in the project by the installer. The following screenshot shows an example of the SCENARIOS page:
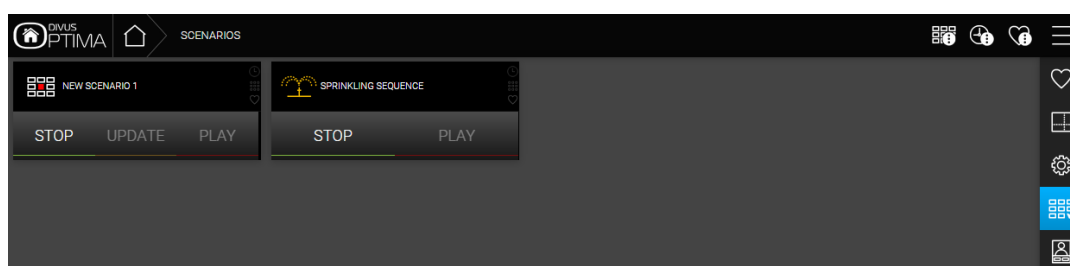
6.2 EXECUTION / INTERRUPTION OF SCENARIOS

The box of a scenario provides the following buttons:

PLAY	Starts the command sequence defined in the scenario
STOP	Stops the command sequence (premised the scenario is running)
UPDATE	Permits to update the commands configured in the scenario with the current states of the related objects; in other words, the current values of all the involved objects are saved as the new values to set whenever the scenario is played.

Since the execution of the actions of a scenario may include also time delays (due to wait commands added by the installer), the scenario may remain in PLAY mode for a longer time. In this case, the scenario can be interrupted with the STOP button.

Hint: The interruption of a scenario does NOT reset the actions executed before the interruption. This may mean that actions that should be reset after an interruption of the scenario must be reset MANUALLY.
A typical example are irrigation scenarios: these usually include the delayed opening and closure of the irrigation valves; if such a scenario is stopped before its completion, the already opened irrigation valves remain open and must be closed MANUALLY through the appropriate KNX objects.

6.3   UPDATE OF A SCENARIO

If the UPDATE button of a scenario is pressed, the scenario for all contained objects assumes the current state in the system as new reference value for future executions of the scenario. This operation can last a few seconds, depending on the amount of objects contained in the scenario. Once the UPDATE procedure is finished, the UPDATE button returns to its original condition.

Hint: The UPDATE button could also be disabled for the scenarios in your configuration. In this case, your installer blocked the update of the scenarios. This may be especially the case for scenarios that commands **the same object multiple times**. In this case, the update process would cause a malfunction of the scenario.

## 6.4   CREATING NEW AND EDITING EXISTING SCENARIOS

Optima 2.0 introduced the ability for the user to manage scenarios on his own. The modus operandi is similar to that for managing scheduling (see chapter 5 (Scheduling)) or favourites (see 4 (Favourites)).

To create a new scenario:

- Start by going to the room where the first object to add is located

- Click on the *Customize scenarios* button in the title bar (upper right)

- A light blue bar appears on the top of the page with the message "*select an object to add it to a scenario*"
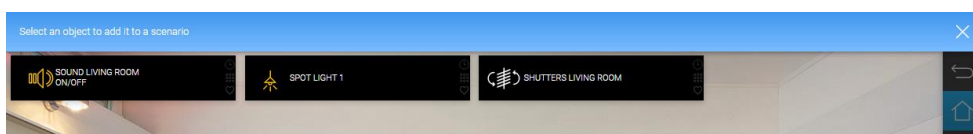
- When you click/tap on an object now, it will open the scenarios editing popup window. This window will be empty in case you have no scenarios in your system or a list of existing scenarios otherwise. Clicking the plus button to add a new scenario will show the new entry in the list:
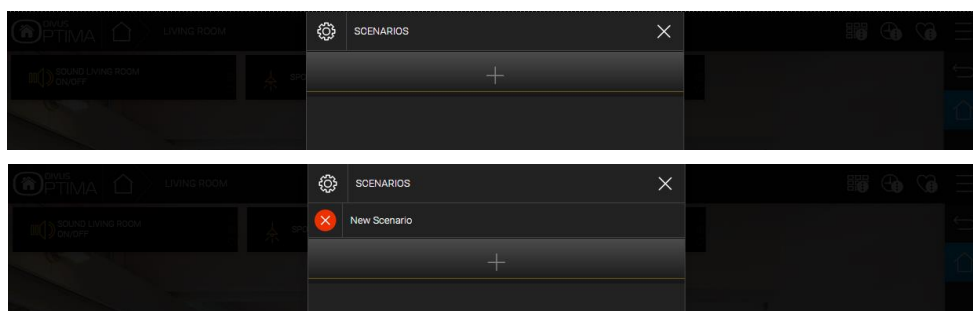
- Choose the new scenario to reach its detail view:
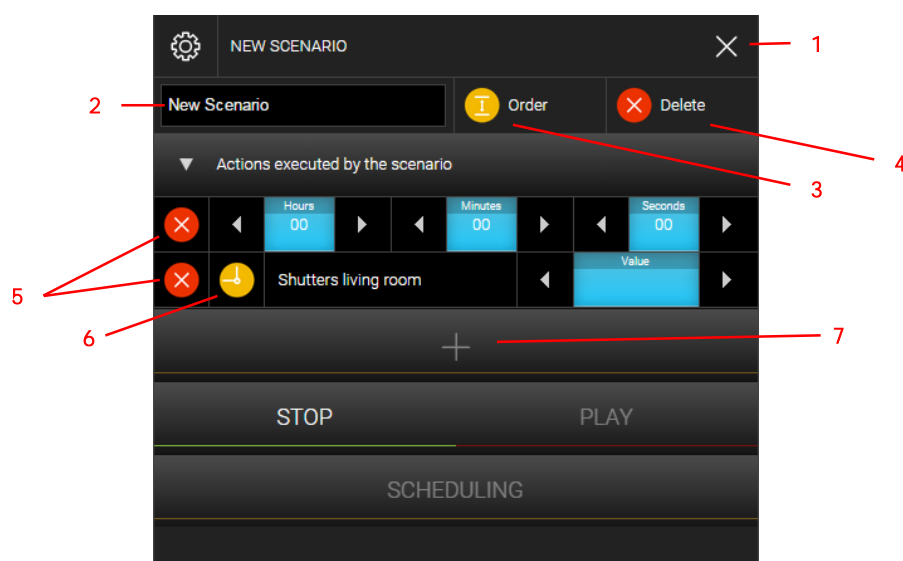
These are the available functions for editing the scenario (numbered):

(1)	Close the scenario editing window
(2)	Text label for giving the scenario a recognizable name
(3)	Choose this function to change the order of the objects of the scenario. The same icon will appear at the beginning of each row: use it as a handle to move a row by drag & drop. Click the main *Order* icon again to exit the ordering mode when done.
(4, 5)	The main *Delete* icon (4) near the *Order* icon allows to delete the whole scenario. The other *Delete* icons (5) in front of each object's row will remove the respective object from the scenario sequence.
(6)	Clicking this icon will add a pause to the scenario. The amount of time to wait between the previous and the following actions may be set using the *Hours, Minutes* and *Seconds* fields using their arrow buttons.

	(7)	Permits to add an additional object of the current room to the scenario. If the object is elsewhere, you'll have to repeat the described procedure after having closed the scenario editing window and moved to the target room/page.
		The STOP, PLAY and SCHEDULING buttons will stop or execute the scenario or open the scheduling window – see below for details.

Hint: The editing of single scenarios may be locked on the administration layer. A scenario which has been locked can of course not be edited and will warn about it through a yellow message bar.

6.5   SCHEDULING OF A SCENARIO

Scenarios can be scheduled like any other objects. See chapter 5 (Scheduling) for details.
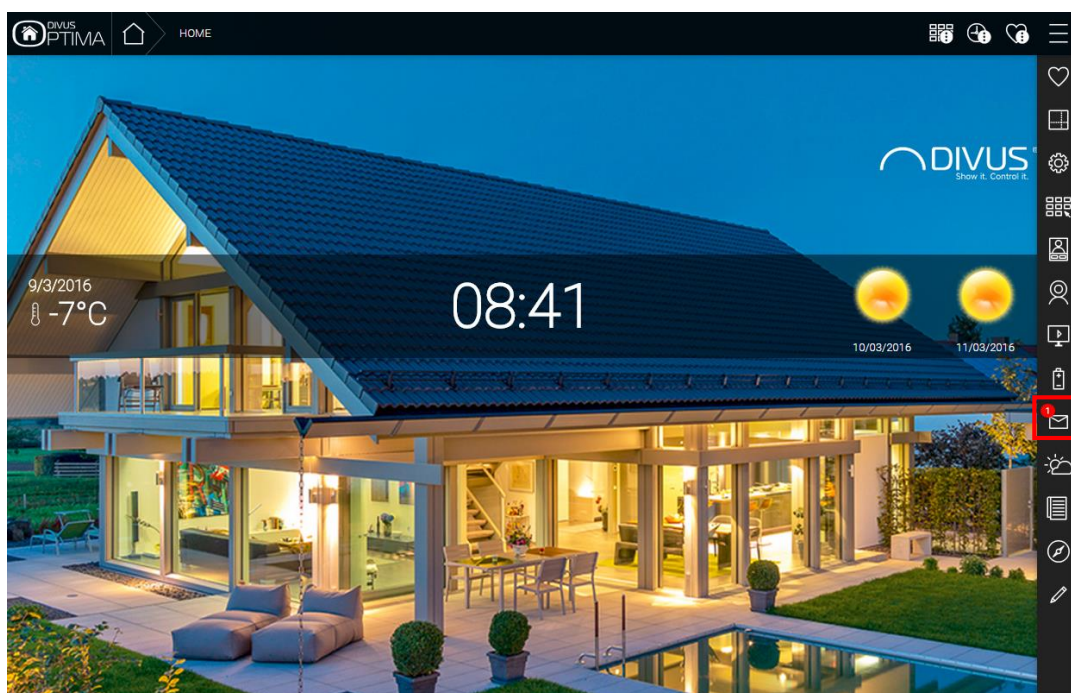
7   Message central

7.1   INTRODUCTION

The message central of OPTIMA allows the centralized management of system-generated messages. Those can either be generated by events / alarms in the system or by the user.

The message central is always available through the NAVIGATION MENU or the HOME page.

If there are unread messages, an icon is displayed including the number of unread messages, as shown in the following screenshot:

7.2   NOTIFICATIONS

The Section "NOTIFICATIONS" of the message central displays a list of all messages generated by OPTIMA, which are triggered depending on the configuration within the system (e.g. by events, alarms or faults).

The message central will only be opened automatically when a notification of type "ALARM" is received, if not configured differently. Other messages are shown only through the icon in the NAVIGATION MENU or the HOME page; the user must manually click on "NOTIFICATIONS" to check out those messages:
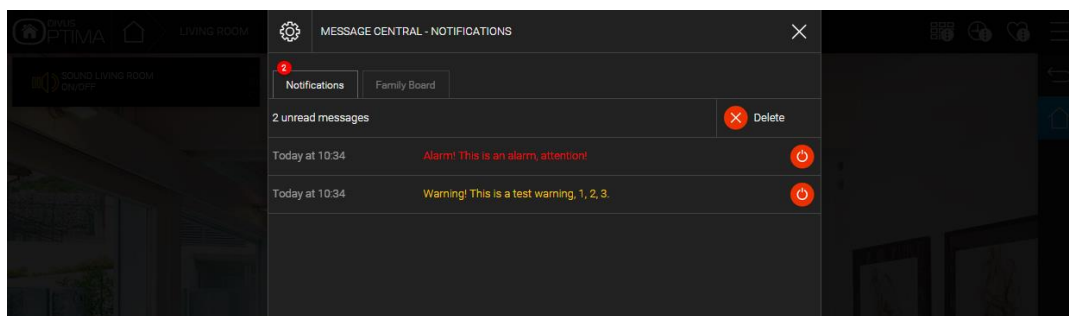
The different levels / types of notifications are represented through different colors. If a message was read, it can be acknowledged using the appropriate button on the right side. The message will not be deleted, but only marked as read, and can be checked out again in the future, if needed.
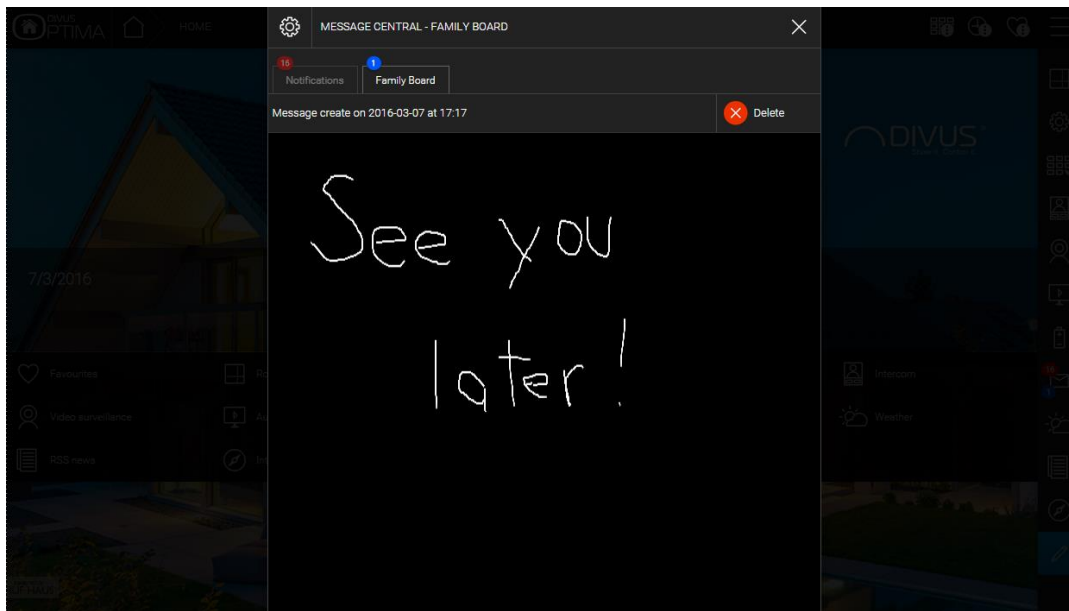
If several messages are displayed, they can be marked as read all together by using the DELETE button in the upper right corner.

7.3   MESSAGE BOARD / FAMILY BOARD

The MESSAGE BOARD permits to enter messages directly through the touchscreen (for touch devices):

At completion of the message, a blue icon is displayed informing about the presence of a new message; it appears in the NAVIGATION MENU / the HOME page on the entry MESSAGE BOARD; the icon remains visible also after closing the message central window.

Hint: The messages on the MESSAGE BOARD are only displayed on the device on which the message has been entered and not on other devices in the network. Furthermore, these messages will be lost if the browser is closed or the visualisation is updated.

8 IP Cameras

8.1   INTRODUCTION

OPTIMA permits to display video streams of compatible IP cameras, video servers and video recorders inside the pages of the visualisation. The video streams can be accessed from within the local network or also by remote access through the internet.

8.2   VISUALISATION OF THE VIDEO SIGNAL

By selecting the entry "VIDEO SURVEILLANCE" in the NAVIGATION MENU, a list of the configured cameras is displayed. If one of them is selected, a pop-up window containing the video stream of the selected camera will be shown (the perfor-mance of the stream depends on camera type, the quality of the network and the performance of the client device):
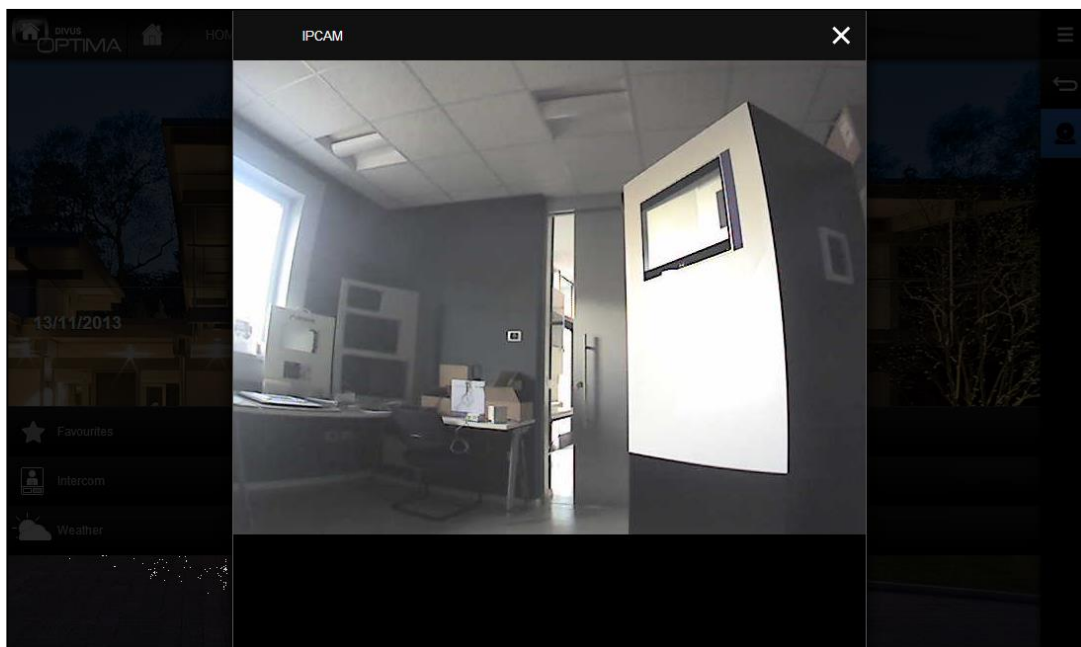
If you click on the top bar of the pop-up window, the window will be closed and another camera can be selected from the NAVIGATION MENU or other pages of the visualisation can be accessed.

If the camera object was assigned to one or more rooms, it can also be displayed within the pages of the visualisation, together with the other objects of the project, as shown below:
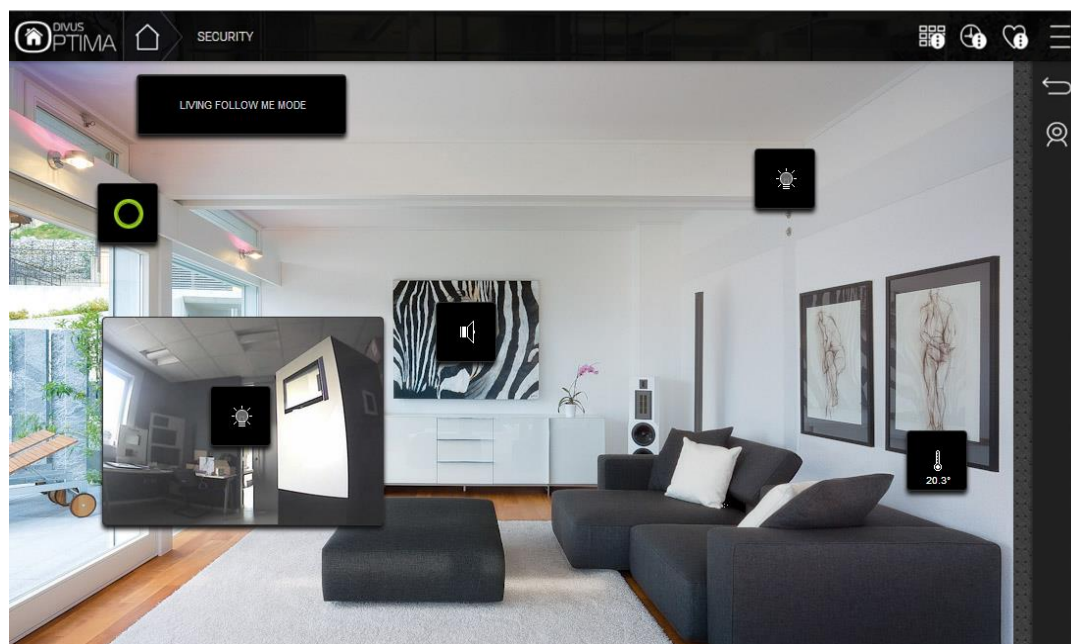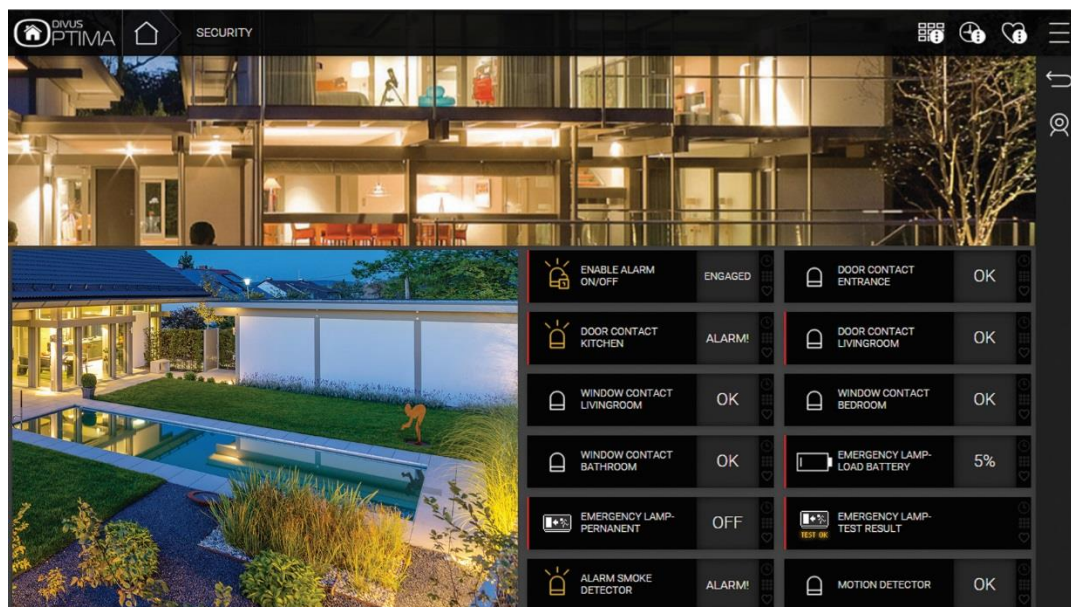
A click on the camera icon opens a pop-up window showing the related cameras video stream in the configured resolu-tion; the result basically is the same as opening the camera through the NAVIGATION MENU.

9 Energy management

9.1 INTRODUCTION

The "ENERGY" section of OPTIMA shows an overview of the complete energy consumption and possible energy production (e.g. photovoltaic) of an installation. This feature requires that the necessary KNX devices are installed in the plant, which collect energy data and provide it through the KNX bus.

This section is highly dependent on the nature of the own system and how it is configured by the installer. Therefore this chapter shows a typical application with two KNX energy counters - one to measure the current energy consumption of the plant and the other to measure the energy production of a photovoltaic system - as well as some loads, which are driven by load controls.

9.2 CONSUMPTION

By selecting the entry "ENERGY" in the NAVIGATION MENU or HOME page and subsequently the entry "CONSUMPTION", a page is opened containing a general power consumption overview:
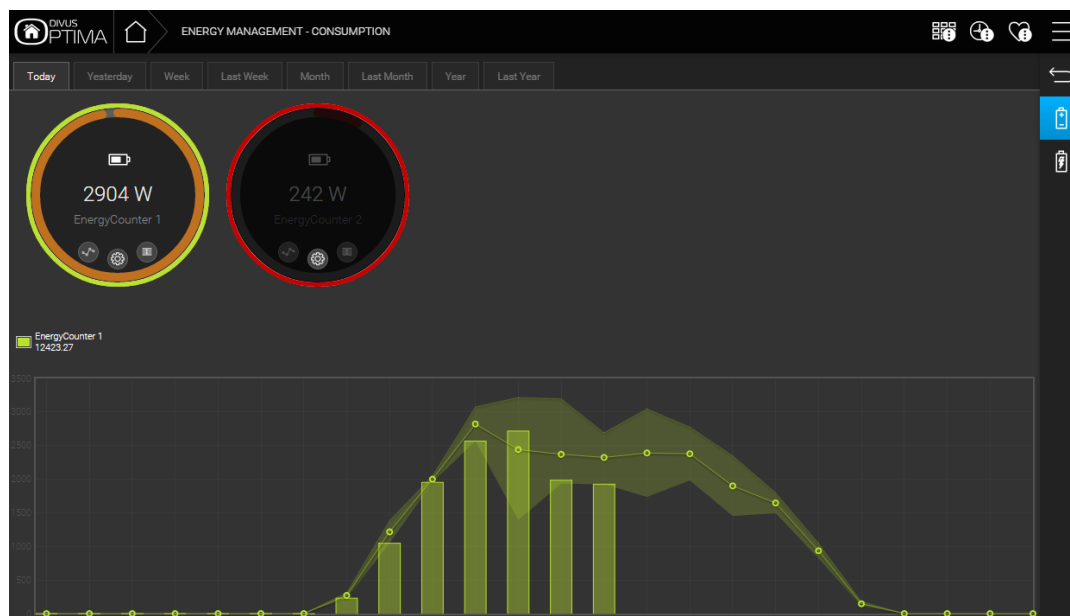
This page shows one or more circle objects which indicate the energy consumption or energy production of a building. The colour of the inner circle (green - orange - red) indicates graphically whether the configured limits are exceeded.

By clicking on the central gear wheel icon of one of the circles, the following pop-up window is opened, which provides further details about the energy consumption and gives access to the configurable parameters:
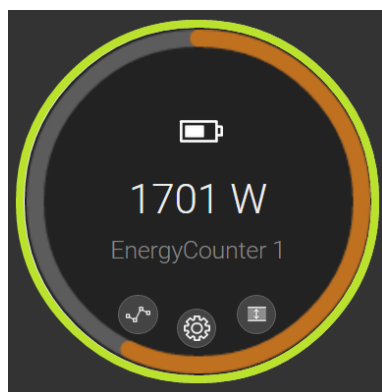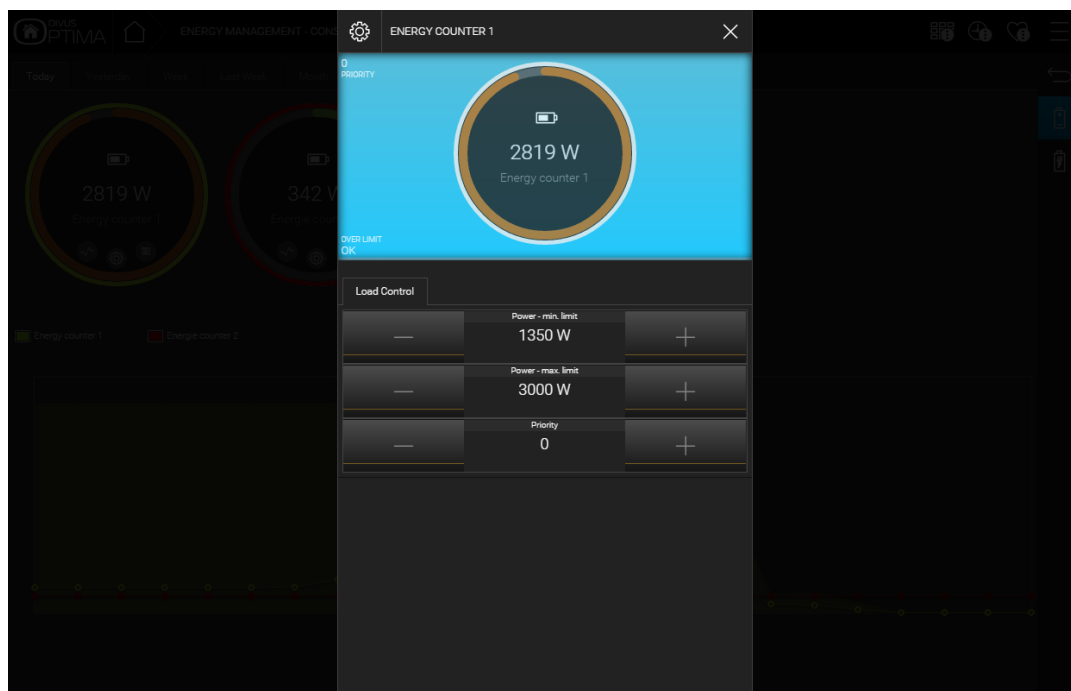
Each circle symbol has three small icons inside, plus a fourth function toggling the visualisation of the graph, activated by clicking inside the circle area.

Each circle symbol has an outer coloured circle, using the same colour as the one of the corresponding graph, which permits to easily recognize it even when more than one graph is shown.

The small icons offer the following functions:

SHOW	⚙	Shows / Hides the energy counter's details in the popup window
COMPARE		Shows hides the comparison values, which are calculated from the average value of the lastly measured values

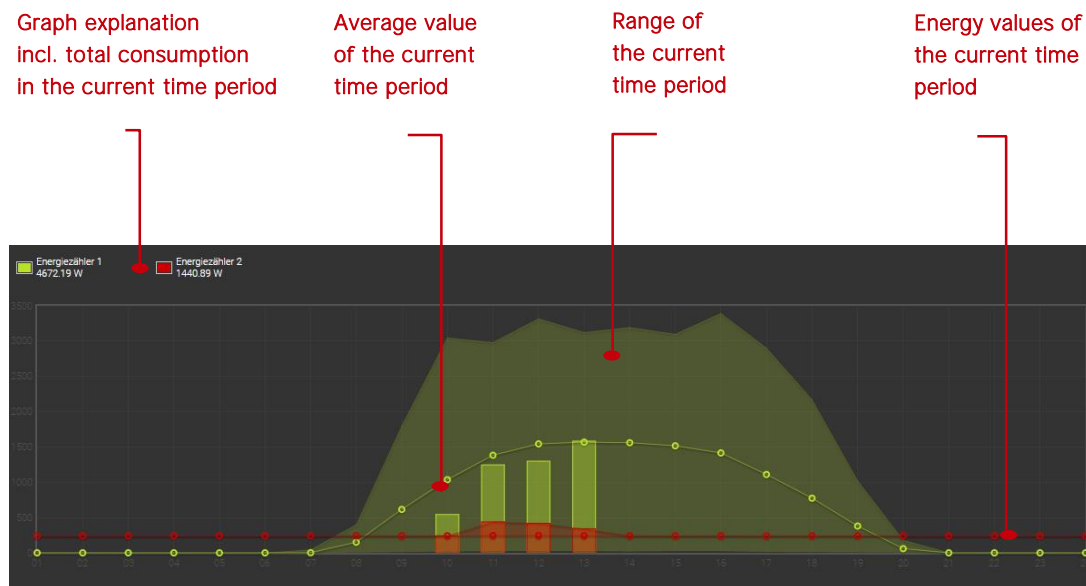| RANGE		Shows / Hides the coloured area which marks the range between the minimum and maximum values of the energy counter (in dependence of the selected time period)

The lower area of the page contains the graphs of the single energy counters from the upper area. The data shown in the graphs always refers to a certain time period, which can be selected by the user through the different TABS on the top of the page:

| TODAY	Data of the current day (from 00:00); the comparison value – if enabled – is calculated from the average of the daily values logged
YESTERDAY	Data of the previous day; the comparison value – if enabled – is calculated from the average of the values logged the previous day
WEEK	Data of the current week (from Monday, 00:00); the comparison value – if enabled – is calculated from the average of the weekly values logged
LAST WEEK	Data of the previous week; the comparison value – if enabled – is calculated from the average of the values logged the previous week
MONTH	Data of the current moth (from the first day, 00:00); the comparison value – if enabled – is calculated from the average of the monthly values logged
LAST MONTH	Data of the previous month; the comparison value – if enabled – is calculated from the average of the values logged the previous month
YEAR	Data of the current year (from the first day, 00:00); the comparison value – if enabled – is calculated from the average of the yearly values logged
LAST YEAR	Data of the previous year; the comparison value – if enabled – is calculated from the average of the values logged the previous year

The following screenshot explains the different elements within the visualisation area of the graphs:

Graph explanation incl. total consumption in the current time period

Average value of the current time period

Range of the current time period

Energy values of the current time period

9.3 LOADS

This section shows the energy consumption of individual loads in real time. Furthermore, the priorities of the load control system can be displayed (if configured / available), as shown in the following screenshot:

Selector Load control (if more than one present)

Energy counter

Loads
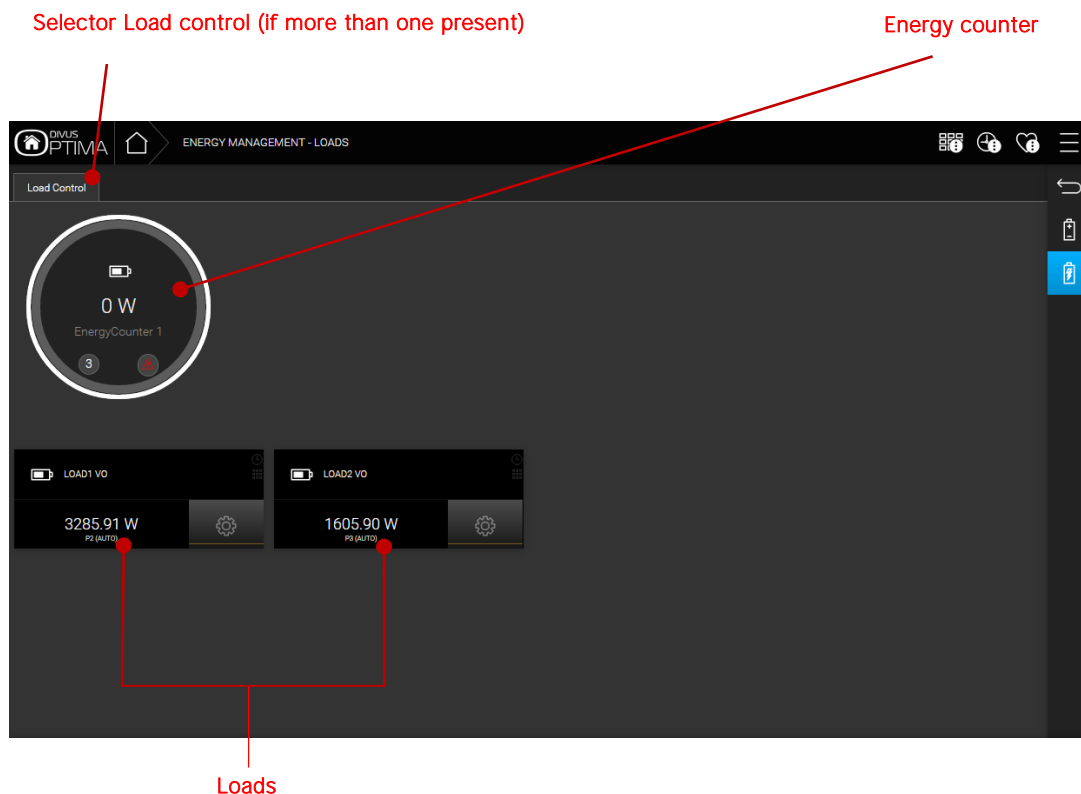
The circle symbol in the upper area shows the total consumption of the system in relation to the configured limits of the load control. On the right side two icons inform about the current state of the load control logic (idle or active) and the current priority value:

The energy counter in detail shows the following information:

Current power value

**Load control enabled (Load over Limit)**

Current priority value
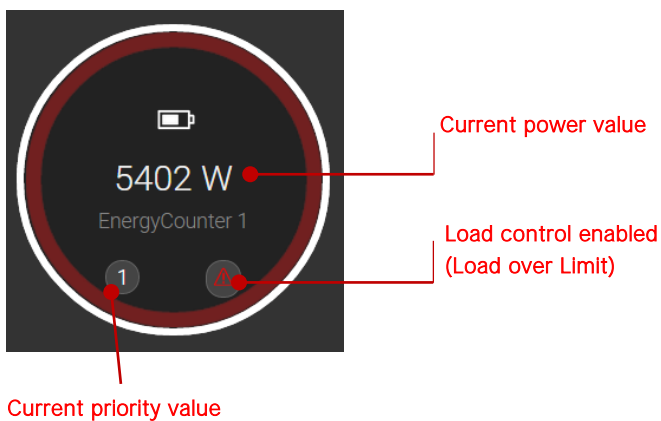
Under normal circumstances the priority value equals 0; if, however, the configured maximum limit is exceeded, the priority is increased on 1 and all loads connected to this priority are disabled. If the consumption still remains over the limit, the priority is furthermore increased (and corresponding loads are switched off), until the maximum priority value is reached.

If instead the consumption goes back below the configured minimum limit, the load control starts acting in the opposite way; the priority value is decreased and previously disabled loads are turned back on.

The limits of the load control can be changed easily through the pop-up window, which appears when the battery of the total consumption is clicked:
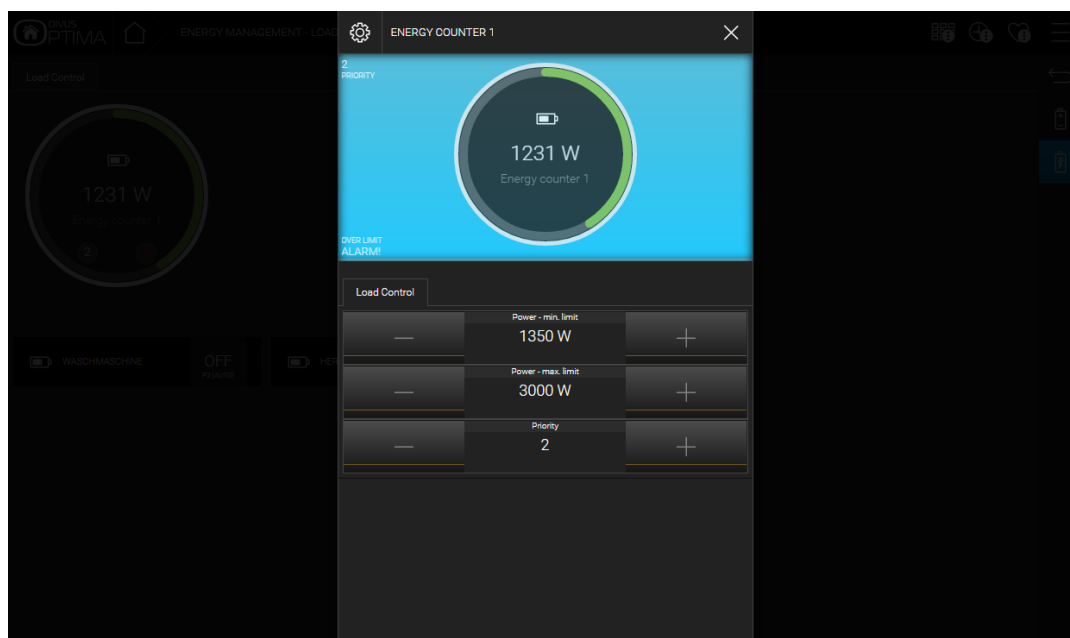
The loads instead are shown in the following way:

or

POWER VALUE

Priority   Auto/Man   ON / OFF

OPEN DETAIL VIEW
BY CLICKING HERE
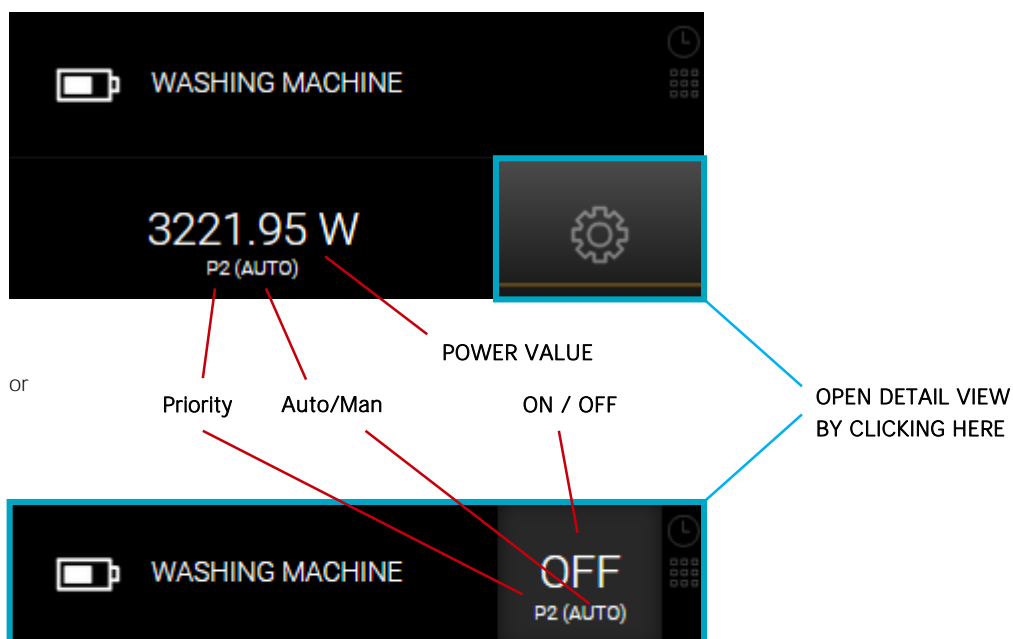
Also in this case, the properties of the single loads (for example the priority) can be changed through the pop-up window, which is shown when clicking on the corresponding battery:
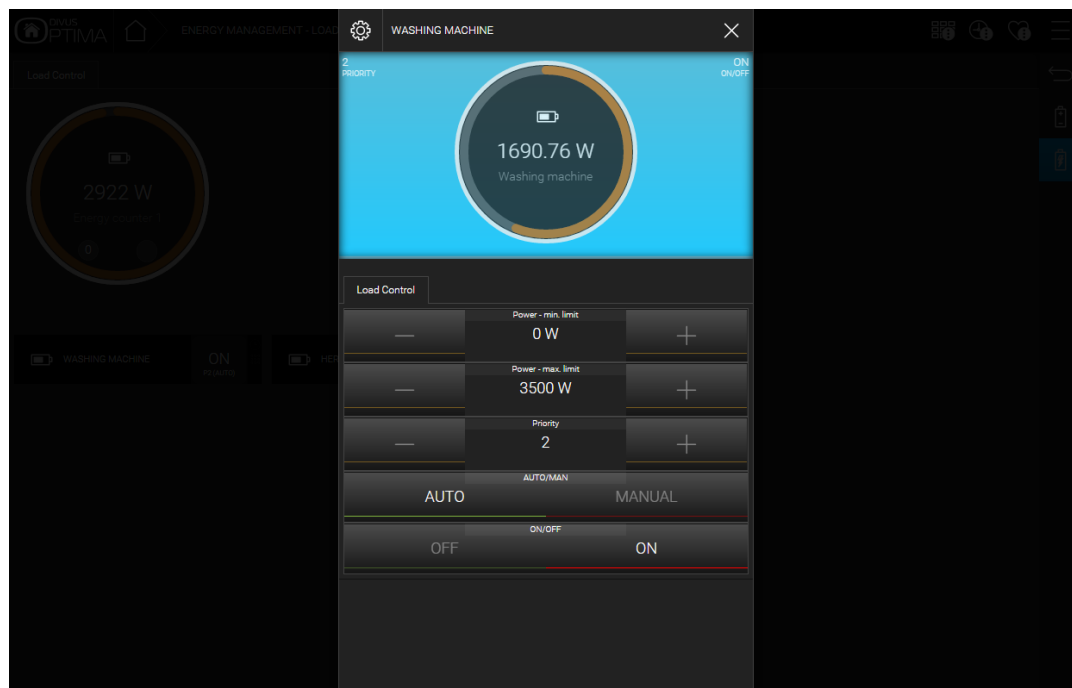
As you can see in the screenshot above, a load can also be put into a MANUAL mode; in this case, the load is not disabled by the load control of OPTIMA but can only be controlled manually by the user (this can be helpful in order to exclude loads temporarily from forced switch-off).
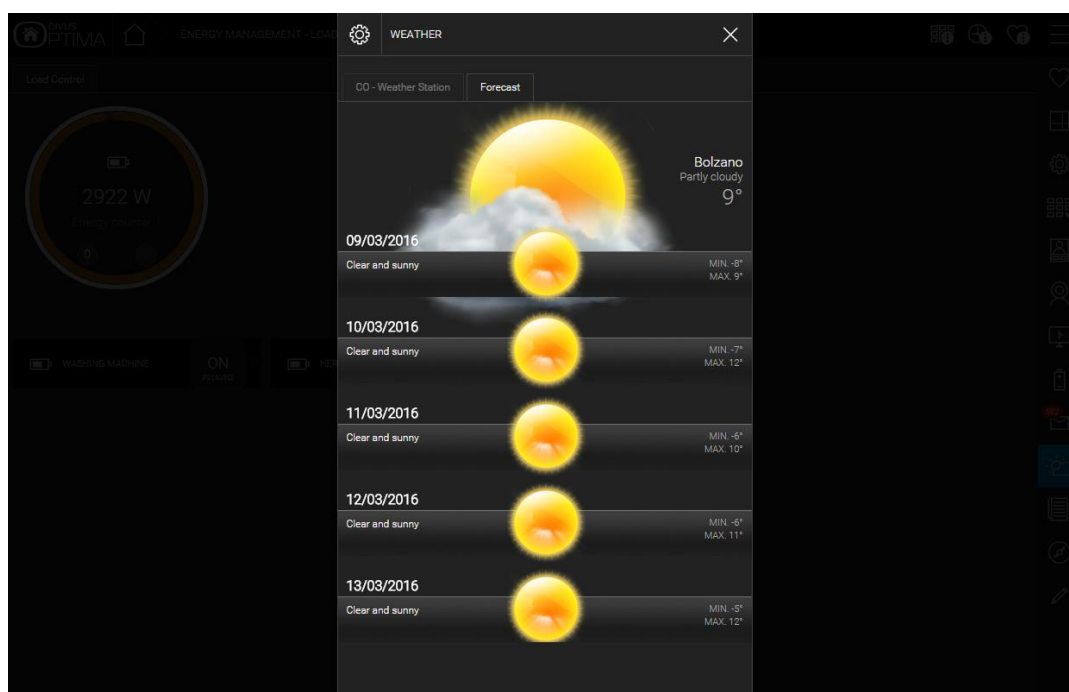
10   Weather

10.1   INTRODUCTION

OPTIMA allows quick and easy display of weather data, which is obtained either over the internet and/or – if available - from a connected KNX weather station.

10.2   WEATHER PREVIEW

By selecting the entry "WEATHER" in the NAVIGATION MENU or in the HOME page, a pop-up window will be opened, which displays the current weather data and the weather forecast of the configured location:

10.3   KNX WEATHER STATION

If a KNX weather station is installed in the system and integrated into OPTIMA correctly by the installer, in the WEATHER pop-up window it will be possible to select a second tab containing the data provided by the KNX weather station:
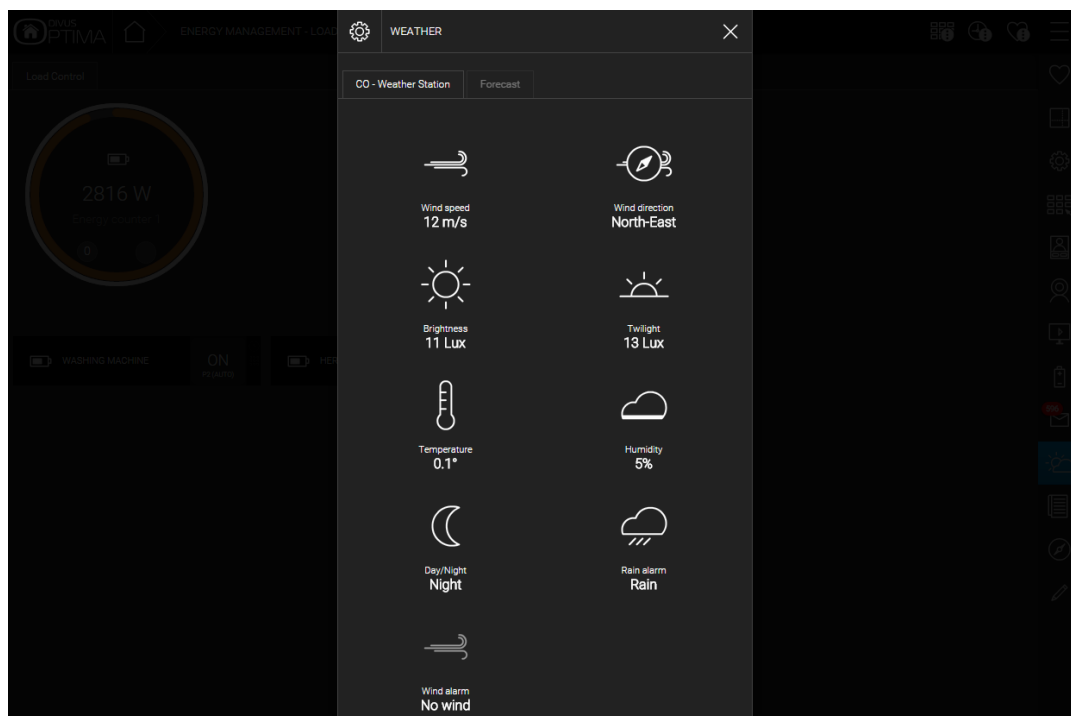
The displayed values depend on the data provided by the weather station.

11 RSS Feeds

11.1   INTRODUCTION

OPTIMA ermöglicht das Abrufen von Nachrichten aus ein oder mehreren RSS Feeds aus dem Internet. Der Zugriff erfolgt wie immer über das NAVIGATIONSMENÜ oder die HOME-Seite, durch Auswahl des Eintrags "RSS NEWS".

11.2   VISUALISATION OF FEEDS

After selecting the entry "RSS NEWS" the following pop-up window will appear:
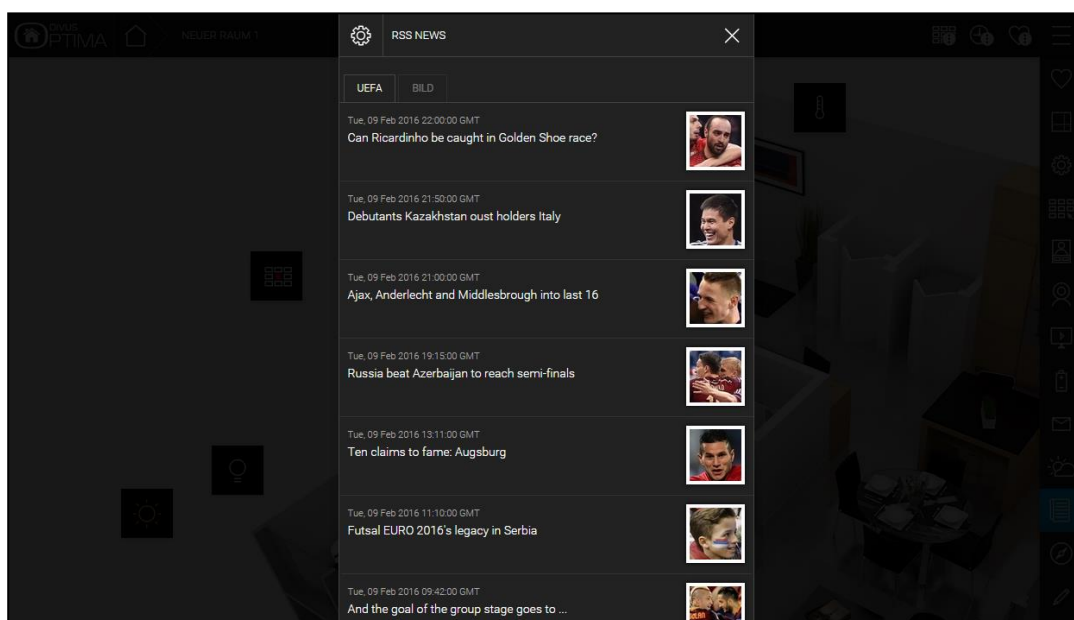

Depending on the number of configured RSS feeds (max. 5) you can switch between the single tabs. Within a feed it is possible to scroll up and down with a mouse wheel (on PC / MAC) or through touch-gestures (for touch devices).

12 Audio / Video

12.1 AUDIO SETTINGS

OPTIMA contains a special complex object called „Audio Settings", through which the system volumes of the device can be adapted and saved. This object is only reachable through the submenu „AUDIO/VIDEO" of the navigation menu. Through this complex object it is possible to change the sensitivity of the microphone and the volume of the loudspeaker; the values can be stored permanently by pressing the "SAVE"-button:
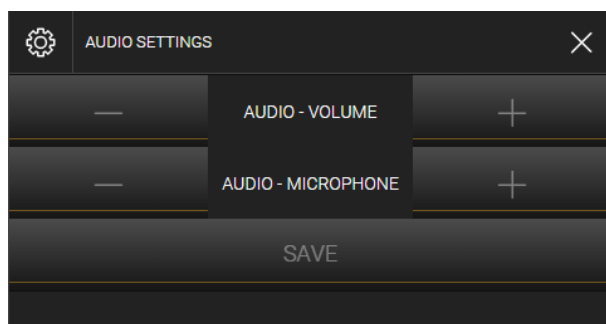
Hint: These audio settings are available only on KNXSUPERIO, which has a loudspeaker and a microphone on board.

For the intercom communication a fine tuning of the conversation volume is possible; more information about this topic can be found in the INTERCOM MANUAL.

13 Appendix

13.1   NOTES